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April 13, 2000
BW000040

U. S. Nuclear Regulatory Commission
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Braidwood Station, Unit 2
Facility Operating License No. NPF-77
NRC Docket No. STN 50-457

Subject: Commonwealth Edison (ComEd) Braidwood Unit 2 Cycle 7 Steam Generator Eddy Current Examination 12 Month Summary Report

In accordance with Technical Specification 5.6.9, "Steam Generator (SG) Tube Inspection Reports," item b requires the complete results of the SG tube inservice inspection to be submitted to the NRC within 12 months following completion of the inspection. The attached report includes the number and extent of tubes inspected, location and percentage of wall thickness penetration for each indication of an imperfection, and identification of tubes plugged or repaired. During the Braidwood Station, Unit 2, refueling outage (i.e., A2R07) Steam Generator inspections and repairs were completed on May 5, 1999.

Please direct any questions regarding this submittal to T.W. Simpkin, Braidwood Regulatory Assurance Manager, (815) 458-2801 ext.2980.

Sincerely,

Timothy J. Tulon
Site Vice President
Braidwood Station

Attachments

cc: Regional Administrator - NRC Region III
NRC Senior Resident Inspector - Braidwood Station
Office of Nuclear Facility Safety - Illinois Department of Nuclear Safety

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COMED

BRAIDWOOD STATION UNIT 2

STEAM GENERATOR EDDY CURRENT INSPECTION REPORT

CYCLE 7 REFUELING OUTAGE (A2R07)

May 1999

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1.0 INTRODUCTION

Braidwood Unit 2 is a four loop Pressurized Water Reactor (PWR) with Westinghouse Model D-5 recirculating steam generators. Each steam generator contains 4,570 thermally treated Inconel-600 U-tubes that have a nominal outside diameter of 0.750 inches and a nominal thickness of 0.043 inches. See Figure A.2 in Attachment A for a diagram of the D-5 Steam Generator tube support plate configuration.

In compliance with Braidwood Station Technical Specification 5.5.9 and ASME Section XI (IWB 2500-1, Exam Category B-Q, item B16.20), 1989 Edition, Steam Generator (SG) eddy current examinations were performed during the Braidwood Unit 2 Cycle 7 refueling outage. In addition, the inspections were performed in accordance with Revision 5 of the EPRI PWR Steam Generator Examination Guidelines and NEI 97-06. The inspections were conducted from April 27 through May 5, 1999. The following inspection scope was completed:

- 100% Full Length Bobbin Coil in all 4 SGs
- 25% Top of Hot Leg Tubesheet Plus-Point in all 4 SGs
- 25% Row 1 and Row 2 U-Bend Plus-Point in all 4 SGs
- 20% Pre-Heater Baffle Expansions in SG C
- 25% Plus- Point of Hot Leg Dents and Dings >5.0 Volts
- 100% Visual Inspection of Tube Plugs
- Visual Inspection of Secondary Side Tubesheet Region in all 4 SGs

2.0 SUMMARY

The requirements of Revision 5 of the EPRI PWR Steam Generator Examination Guidelines were implemented during this inspection. A degradation assessment was performed to ensure that only EPRI Appendix H qualified examination techniques were used to detect any pre-existing and potential modes of degradation. Each technique was evaluated to ensure that the detection and sizing capabilities are applicable to the Braidwood Unit 2 site specific conditions in accordance with Section 6.2.4 of the EPRI SG Examination Guidelines. All data analysts were qualified to Appendix G of the EPRI Guidelines (QDA). All data analyst and data acquisition personnel satisfactorily completed site specific training and testing prior to beginning examinations.

The only mode of tube degradation found during this inspection was anti-vibration bar (AVB) wear. No other degradation modes were seen during this inspection.

As a result of the eddy current inspections, a total of 6 tubes were repaired by mechanical tube plugging. All 6 of these tubes contained AVB wear greater than the 40% through wall Technical Specification plugging Limit. To date, there have been no tubes repaired by sleeving in Braidwood Unit 2. Table 2.1 provides the a history of the total tubes plugged to date as well as equivalent tube plugging levels for each SG.

TABLE 2.1 Equivalent Tube Plugging

	SG A	SG B	SG C	SG D	Total
Previously Plugged	35	7	39	22	103
Plugged in A2R07	0	1	4	1	6
Total Plugged	35	8	43	23	109
Total Plugged (%)	0.76%	0.18%	0.94%	0.50%	0.60%

3.0 CERTIFICATIONS

3.1 Procedures/Examinations/Equipment

3.1.1 The examination and evaluation procedures used during the eddy current inspection were performed by personnel qualified to Level III in accordance with the 1984 Edition of SNT-TC-1A. ComEd procedures SPPM NDT-E-2, Revision 2, and SPPM NDT-E-3, Revision 1 were used for data acquisition and analysis, respectively.

3.1.2 The examinations, equipment, and personnel were in compliance with the requirements of the ComEd and Westinghouse Quality Assurance programs for Inservice Inspection, Braidwood Technical Specification 5.5.9, 1989 Edition of the ASME Boiler and Pressure Vessel Code Sections XI and V, Revision 5 of the EPRI PWR Steam Generator Examination Guidelines, NEI 97-06 and industry standards.

3.1.3 Certification packages for examiners, data analysts, and equipment are available at Braidwood Station. Table A.1 of Attachment A lists personnel who performed data acquisition or analysis during this inspection.

3.1.4 MIZ-30-A and TC-6700 Remote Data Acquisition Units (RDAUs) with EddyNet 98 Revision 1.16 and ANSER 8.3 Rev 16 software were used in the acquisition of the eddy current data and EddyNet 98 Version 1.16 software was used in the analysis of the data.

3.2 Personnel

3.2.1 The personnel who performed the eddy current inspections were qualified to Level I and Level II in accordance with the 1984 Edition of SNT-TC-1A. The Level I personnel performed the inspections under the direct supervision of Level II personnel.

3.2.2 The personnel who performed the data analysis were qualified to a minimum of Level II, with special analysis training (IIA) in accordance with the 1984 Edition of SNT-TC-1A, Westinghouse and ComEd procedures.

3.2.3 All eddy current data analysts analyzing data were qualified in accordance with EPRI Appendix G for Qualified Data Analysts (QDA).

3.2.4 All eddy current data analysts were trained and tested in accordance with a site specific performance demonstration program in both bobbin eddy current data and Plus Point data. Resolution analysts were also trained and tested specifically in the performance of data resolution. All analysts were required to achieve a score of 80% on both the written and practical examinations prior to analyzing data.

3.2.5 All eddy current data acquisition operators were trained and tested to a site specific acquisition training program. The data acquisition operators were required to achieve a test score of 80% or greater.

3.2.6 The eddy current analysis was subject to two independent analyses. The Primary Analysis was performed by Westinghouse and the Secondary Analysis was performed by ANATEC. The following subcontractors were used to support data analysis at either primary or secondary analysis sites; Corestar, KPS, More-Tech, Verner & James, Quantum, Wiltec and Zetec. Discrepancies between primary and secondary analysis required Level III concurrence between both parties for the final resolution.

3.2.7 An experienced eddy current Level III QDA was employed to serve as a Process Control Reviewer to randomly sample the data to ensure the resolution process was properly performed and that the field calls were properly reported. The process control reviewer also provided data acquisition oversight to ensure that the data collection process was in compliance with appropriate procedures. This is in accordance with the EPRI Guidelines Section 6.3.3.4.

4.0 EXAMINATION TECHNIQUE AND EXAMINATION SCOPE

All eddy current examination techniques used are qualified in accordance with Appendix H of the EPRI Steam Generator Examination Guidelines. Each examination technique was evaluated to be applicable to the tubing and conditions of the Braidwood Unit 2 steam generators.

4.1 Examination Techniques

4.1.1 All inservice tubes in each SG were inspected full length utilizing a 0.610 inch diameter LLMC bobbin coil eddy current probe. For U-Bend regions and cold leg tubing in rows 1 through 3, a 0.590 inch diameter LLMC spring flex bobbin probe was utilized to achieve the complete full tube inspection. Nominal probe inspection speed was 40 inches per second for rows 4 through 49 and 24 inches per second for rows 1 through 3. Sufficient sampling rates were used to maintain a minimum of 30 samples per inch. The bobbin coil probes were operated at frequencies of 550 kHz, 300 kHz, 130 kHz, and 20 kHz operating in the differential and absolute test modes. In addition, suppression mixes were used to enhance the inspection. These mixes were as follows: 550/130 kHz differential mix, 300/130 kHz absolute mix and a 550/300/130 kHz differential mix.

4.1.2 25% of the inservice tubes in each SG were inspected at the hot leg top of tubesheet expansion transition region with a 0.610 inch diameter three coil plus-point eddy current probe. The examinations were performed 2" above to 2" below the secondary tubesheet interface. The probe contained a mid-range plus-point coil, a 0.115 inch diameter pancake coil and a 0.080 inch diameter mid-range or standard pancake coil. Nominal probe speed was 0.5 inches per second with a sampling rate to maintain a minimum of 30 samples per inch. The probe was operated at frequencies of 300 kHz, 200 kHz, 100 kHz and 20 kHz operating in the absolute test mode. Three process channels were created to display axial indications in a positive trace.

4.1.3 20% preheater baffle expansions in the C SG were inspected utilizing a 3 coil plus-point probe described in Section 4.1.2.

4.1.4 25% of the inservice U-Bend regions of tubes in rows 1 and 2 in each steam generator were inspected utilizing a 0.580 inch diameter magnetically biased U-Bend Plus-Point probe. Nominal probe speed was 0.15 inches per second with a sampling rate to maintain a minimum of 30 samples per inch. The probe was operated at frequencies of 400 kHz, 300 kHz, 150 kHz and 20 kHz in the absolute test mode. Three process channels were created to display axial indications in a positive trace.

4.1.5 Tubes containing dents at Hot Leg tube support plates and Hot Leg freespan dings that were sized greater than 5.0 volts and non-quantifiable indications identified by an "I-Code" were examined with a rotating plus-point probe described in Section 4.1.2. The nominal probe speed for inspection of dents was reduced to 0.15 inches per second while maintaining a minimum sampling rate of 30 samples per inch.

4.1.6 The SG eddy current examination techniques used during this inspection were equivalent to the EPRI Appendix H techniques listed in Table 4.1 below. Each Examination Technique Specification Sheet (ETSS) was evaluated and determined to be applicable to the site conditions.

TABLE 4.1
EPRI APPENDIX H TECHNIQUES

EPRI Technique ETSS	Probe	Description
96004	Bobbin	AVB / Pre-Heater / TSP / Foreign Object Wear, Freespan Flaws
96006	Bobbin	Tubesheet Expanded Region
96007	Bobbin	ODSCC at Tube Support Plates
96910	Plus-Point	Foreign Object Wear / Freespan Flaw Sizing
96509	Plus-Point	TTS Expansion / Pre-Heater Expansion / Dent / Ding - PWSCC
96402	Plus-Point	TTS Expansion / Dent / Ding / U-Bend / Pre-Heater Expansion ODSCC
96511	Plus-Point	U-Bend PWSCC
96703	Plus-Point	Dent / Ding / PWSCC Sizing

PWSCC – Primary Water Stress Corrosion Cracking
ODSCC – Outer Diameter Stress Corrosion Cracking
TSP – Tube Support Plate
TTS – Top of Tubesheet
AVB – Anti-Vibration Bar

4.1.7 See Attachment B for tubesheet maps detailing the inspection scope for each inspection program.

4.2 Recording of Examination Data

Results of the eddy current data analysis were recorded on optical disks. The data was then loaded into the Westinghouse ST98 Eddy Current Data Management System. This system was used to track the proper examination of all tubes and it was also used to generate the final eddy current report summaries.

4.3 Witness and Verification of Examination

Eddy current inspections were witnessed and/or verified by the Authorized Nuclear Inservice Inspectors Mr. Lee Malabanan of the Hartford Steam Boiler Inspection and Insurance Company of Hartford Connecticut, Chicago Branch, 2443 Warrenville Road, Suite 500, Lisle, Illinois 60532-9871.

5.0 EXAMINATION RESULTS

5.1 Indications Found

5.1.1 **Anti-Vibration Bar (AVB) Wear** - Tube degradation was found by the 100% bobbin coil examination in the U-bend region due to fretting of the Anti-Vibration Bars on the tube. A total of 656 tubes contained 795 indications of AVB wear. The bobbin coil examination technique utilized in this inspection was EPRI Appendix H qualified for the depth sizing of AVB wear. Six tubes were removed from service as a result of AVB wear exceeding the 40% through wall (TW) repair limit. The largest of these indications was 44% TW. Table 5.1.1 below provides a summary of AVB Wear degradation.

Table 5.1.1

	SG A		SG B		SG C		SG D		TOTAL	
	Tubes	Ind.	Tubes	Ind.	Tubes	Ind.	Tubes	Ind.	Tubes	Ind.
<20% TW	146	153	27	36	68	85	54	63	295	337
20-39% TW	169	180	39	52	90	158	57	62	355	452
>= 40% TW	0	0	1	1	4	4	1	1	6	6
TOTAL *	315	333	67	89	162	247	112	126	656	795

* Tubes may contain indications in more than one category.

5.2 Other Inspection

5.2.1 Hot Leg Top of Tubesheet Region – 25% of the hot leg top of tubesheet region in each steam generator was inspected using the plus point probe. No tube degradation was found.

5.2.2 Low Row U-Bend Plus-Point Inspection - 25% of the row 1 row 2 U-bend regions were inspected in each steam generator with a plus-point probe. No tube degradation was found

5.2.3 Pre-heater Expansion Plus-Point Inspection - A sample of 20% of the pre-heater baffle expansions in SG C were inspected with the plus-point probe. No degradation was found.

5.2.3 Hot Leg Dents and Dings > 5.0 Volts Plus-Point Inspection - 25% of the hot leg dents (at tube support plates) and dings (at freespan section of tubes), that were greater than 5.0 volts (41 dents), as measured by the bobbin coil were inspected with a plus-point probe. No degradation was found.

5.2.4 Visual Inspection of Secondary Side - Secondary side visual inspections were performed in the upper tube bundle of SG C. Access was gained through inspection ports at the 8th support plate. A video probe was used to inspect accessible portions of the divider lane, tube periphery lane and inner tube bundle. In addition, the top of the tubesheet region was inspected after sludge lancing in all four steam generators. No degradation was found. A foreign object, which could not be retrieved, was identified on the top of tubesheet region in the "D" steam generator. The object is wedged between R-6 C-2 and R-7 C-2. The object was originally identified during A2R06 (Sept '97), at which time a 10CFR 50.59 Safety Evaluation was performed allowing the tubes to remain in service since there was no degradation. The tubes in contact with the foreign object showed no signs of wear dating back to A2R03 (March '93). Based on reinspection of these tubes during A2R07, no degradation had occurred. During A2R07 a 10CFR 50.59 Safety Evaluation validation was performed which allows the tubes to remain in service provided they are inspected for degradation each refueling outage.

5.2.5 Visual Inspection of Previously Install Plugs - All previously installed plugs on the hot leg and cold leg tube ends were visually inspected for signs of degradation and leakage. A total of 206 tube plugs were visually inspected. In addition, all plugs installed during this outage were also visually inspected. No degradation or abnormal leakage was found.

6.0 REPAIR SUMMARY

Repairs were conducted in accordance with ASME Section XI, 1989 Edition. All repairs were performed using Inconel-690 mechanical tube plugs. All repairs were performed in accordance with Westinghouse approved procedures.

7.0 TUBE INTEGRITY ASSESSMENT SUMMARY

Tube integrity assessments were performed to demonstrate that SG performance for each mode of degradation met the required structural integrity requirements for the previous operating period, Cycle 7, and for the next operating period Cycle 8. The assessment for the previous cycle is referred to as a condition monitoring assessment and the assessment for the next cycle is referred to as the operational assessment. The condition monitoring and operational assessments were performed in accordance with Revision 5 of the EPRI PWR Steam Generator Examination Guidelines and the EPRI Steam Generator Integrity Assessment Guidelines. There was no primary to secondary leakage detected during Cycle 7 or upon shutdown for A2R07.

7.1 Degradation Assessment

In order to ensure that appropriate inspections are performed during A2R07, a degradation assessment was performed prior to the outage to identify active and potential degradation mechanisms. For each active and potential degradation mechanism, an appropriate inspection sample and EPRI Appendix H inspection technique was determined. The inspection scope and techniques used are discussed in Section 4.1 of this report. The degradation assessment was performed in accordance with Section 5.2 of the EPRI PWR Examination Guidelines, Revision 5.

7.2 Condition Monitoring / Operational Assessment

7.1.1 Anti-Vibration Bar (AVB) Wear (Condition Monitoring)

The only damage mechanism seen during A2R07 was AVB wear. The structural limit for AVB wear is 74% through-wall (TW) and the Technical Specification repair limit is 40% TW. The deepest AVB wear indication found during A2R07 was 44% TW which is well below the structural limit even when NDE uncertainty of 8% is added. An indication of this size would not be expected to leak during accident conditions. This tube was removed from service along with five other tubes having AVB wear greater than or equal to the 40% TW repair limit. Since this was the only mode of degradation seen during the A2R07, all condition monitoring criteria were met for Cycle 7.

7.1.2 Anti-Vibration Bar (AVB) Wear (Operational Assessment)

The only damage mechanism seen during A2R07 was AVB wear. An operational assessment was performed to compare the largest predicted AVB wear flaw at the end of cycle 8 (1.425 Effective Full Power Years) to the structural limit. This was performed by combing the largest flaw left inservice with NDE uncertainty and an allowance for growth using the largest growth rate from previous inspection results over the expected cycle length. The largest flaw predicted at the end of Cycle 8 is 61.25% TW, which is well below the structural limit of 74% for AVB wear. This results in an acceptable operational assessment and supports full cycle operation.

7.1.3 Secondary Side Internal Integrity

Inspection results found the condition of the steam generator secondary side internals to be acceptable with no observations impacting tube integrity. No problems were encountered with inserting sludge lance equipment through the access ports, thus indicating that the wrapper remains in place. Eddy current analysis did not identify any missing or distorted support plate signals. No tube wear was found that could be attributable to loose parts from the pre-heater water components.

8.0 DOCUMENTATION

All original optical disks have been provided to ComEd and are maintained at Braidwood Station. The final data sheets and pertinent tube sheet plots are contained in the Westinghouse Outage Report for Braidwood Unit 2, A2R07, and are also maintained at Braidwood Station.

9.0 FIGURES/TABLES/ATTACHMENTS

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Table A.1 Data Acquisition and Analysis Personnel Certification List

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ATTACHMENT C CONTENTS

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Table D.1 Tubes Repaired During A1R08
Steam Generator B Tubes Repaired During A2R07
Steam Generator C Tubes Repaired During A2R07
Steam Generator D Tubes Repaired During A2R07
Note: There Were No Tubes Repaired in Steam Generator A During A2R07

ATTACHMENT A

TABLE A.1
Data Acquisition and Personnel

Name	Org.	Level	AN AQ	QDA	BwAP Comp	SSPD Comp.
Anderson, D	ANATEC	IIA	AN	Y	Y	Y
Barnes, R.	ANATEC	III	AN	Y	Y	Y
Battaglia, A	ANATEC	IIA	AN	Y	Y	Y
Brack, M.	ANATEC	III	AN	Y	Y	Y
Caperello, M.	ANATEC	IIA	AN	Y	Y	Y
Chismar, D	ANATEC	IIA	AN	Y	Y	Y
Derby, K.	ANATEC	II	AQ	N	Y	Y
Digiorgio, P.	ANATEC	III	AN	Y	Y	Y
Drillet, A.	ANATEC	IIA	AN	Y	Y	Y
Geoffroy, D	ANATEC	IIA	AN	Y	Y	Y
Hako, E.	ANATEC	IIA	AN	Y	Y	Y
Himmelspach,	ANATEC	III	AN	Y	Y	Y
Hodnett, S	ANATEC	IIA	AN	Y	Y	Y
Hyland, D.	ANATEC	III	AN	Y	Y	Y
Kellar, J.	ANATEC	III	AN	Y	Y	Y
Kolakowski, C	ANATEC	IIA	AN	Y	Y	Y
Kotcher, W.	ANATEC	IIA	AN	Y	Y	Y
Linney, E.	ANATEC	IIA	AN	Y	Y	Y
Lorenzi, J	ANATEC	IIA	AN	Y	Y	Y
Maben, D.	ANATEC	III	AN	Y	Y	Y
Maestas, R.	ANATEC	III	AN	Y	Y	Y
Majoros, T.	ANATEC	IIA	AN	Y	Y	Y
Mayer, T.	ANATEC	IIA	AN	Y	Y	Y
Miller, M.	ANATEC	III	AN	Y	Y	Y
Obazenu, D.	ANATEC	III	AN	Y	Y	Y
Radovanic, J.	ANATEC	III	AN	Y	Y	Y
Raper, L.	ANATEC	III	AN	Y	Y	Y
Seiwald, M.	ANATEC	IIA	AN	Y	Y	Y
Singh, M.	ANATEC	III	AN	Y	Y	Y
Speas, C.	ANATEC	IIA	AN	Y	Y	Y
Stanger, D.	ANATEC	III	AN	Y	Y	Y
Steele, B.	ANATEC	IIA	AN	Y	Y	Y
Tan, J.	ANATEC	IIA	AN	Y	Y	Y
Tessier, H.	ANATEC	IIA	AN	Y	Y	Y
Vecchio, C	ANATEC	IIA	AN	Y	Y	Y
Wadzinski, D.	ANATEC	III	AN	Y	Y	Y
Wieber, J.	ANATEC	IIA	AN	Y	Y	Y
Williamson, A.	ANATEC	IIA	AN	Y	Y	Y

TABLE A.1
Data Acquisition and Personnel

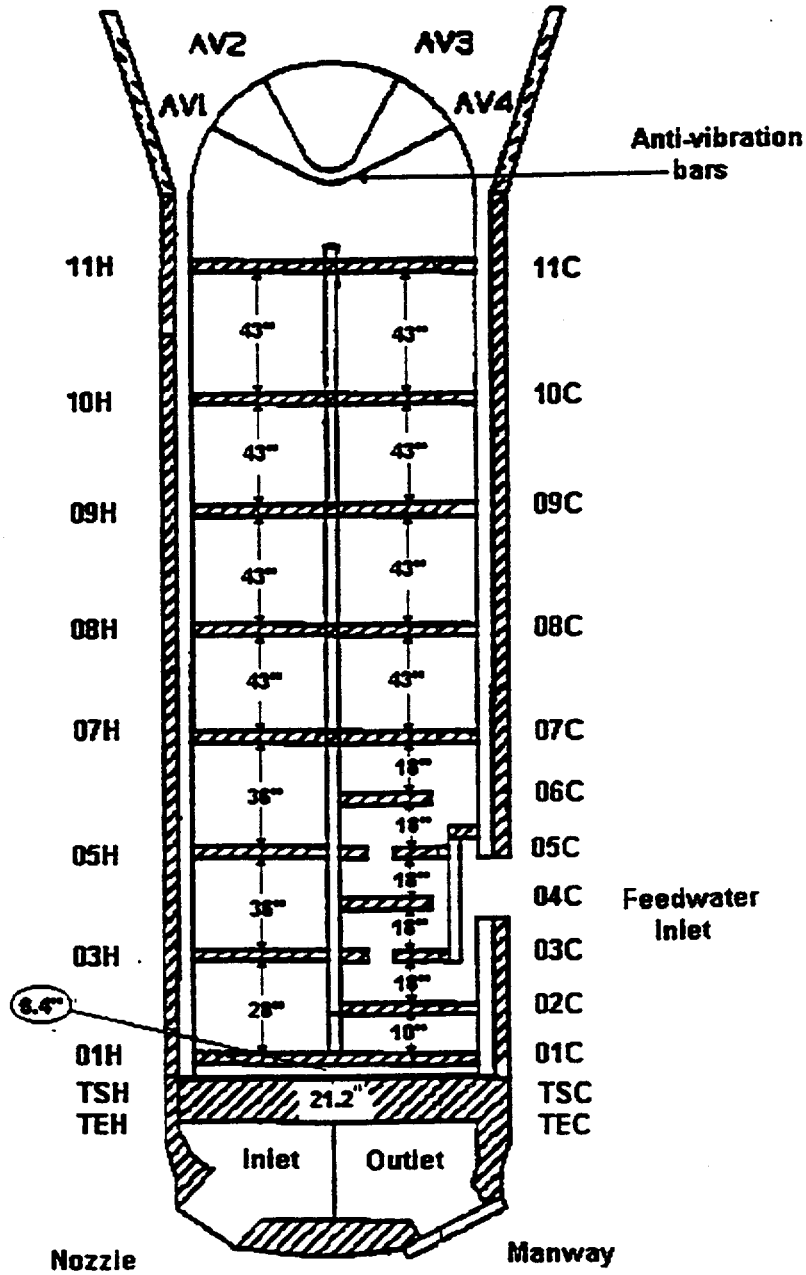
Name	Org.	Level	AN AQ	QDA	BwAP Comp	SSPD Comp.
Williamson, J.	ANATEC	IIA	AN	Y	Y	Y
Williamson, L.	ANATEC	III	AN	Y	Y	Y
Kirk., M.	CONSUMERS	III	AN	Y	Y	Y
Sommer, S.	CONSUMERS	IIA	AN	Y	Y	Y
Coradi, M.	CORESTAR	III	AN	Y	Y	Y
Martin, A.	CORESTAR	IIA	AN	Y	Y	Y
Maullar, K.	CORESTAR	IIA	AN	Y	Y	Y
Schwering, R.	CORESTAR	II	AQ	N	Y	Y
Turner, D.	CORESTAR	IIA	AN	Y	Y	Y
Ko, J.	KPS	IIA	AN	Y	Y	Y
Oh, C.	KPS	III	AN	Y	Y	Y
Chambers, D. M.	MORE-TECH	III	AN	Y	Y	Y
Hall, K.	MORE-TECH	III	AN	Y	Y	Y
Holden, T.	MORE-TECH	III	AN	Y	Y	Y
Jones, B.	MORE-TECH	IIA	AN	Y	Y	Y
Mitchell, J.	MORE-TECH	III	AN	Y	Y	Y
Richardson, H.	MORE-TECH	IIA	AN	Y	Y	Y
Sordini, J.	MORE-TECH	IIA	AN	Y	Y	Y
Webb, R.	MORE-TECH	III	AN	Y	Y	Y
Nelson, D.	NDE-TECH	III	AN	Y	Y	Y
Richmond, M.	NDE-TECH	III	AN	Y	Y	Y
Wheeler, C.	NDE-TECH	IIA	AN	Y	Y	Y
Morgan, B.	QUANTUM	IIA	AN	Y	Y	Y
Prentice, R.	QUANTUM	IIA	AN	Y	Y	Y
Stasik, F.	QUANTUM	III	AN	Y	Y	Y
Carlson, C.	V&J	IIA	AN	Y	Y	Y
Dahnke, D.	V&J	III	AN	Y	Y	Y
Hill, J.	V&J	III	AN	Y	Y	Y
Ingenthron, G.	V&J	IIA	AN	Y	Y	Y
Mcleod, E.	V&J	IIA	AN	Y	Y	Y
Neff, A.	V&J	III	AN	Y	Y	Y
Palmer, R.	V&J	IIA	AN	Y	Y	Y
Salton, J.	V&J	IIA	AN	Y	Y	Y
Webb, J.	V&J	III	AN	Y	Y	Y

TABLE A.1
Data Acquisition and Personnel

Name	Org.	Level	AN AQ	QDA	BwAP Comp	SSPD Comp.
Bacco, K.	WEST	II	AQ	N	Y	Y
Burkholder, R.	WEST	II	AQ	N	Y	Y
Chiplaskey, G.	WEST	II	AQ	N	Y	Y
Collier, W.	WEST	I	AQ	N	Y	Y
Dawson, F.	WEST	II	AQ	N	Y	Y
Douglas, B.	WEST	II	AQ	N	Y	Y
Estel, J.	WEST	II	AQ	N	Y	Y
Evering, D.	WEST	II	AQ	N	Y	Y
Gallagher, D.	WEST	I	AQ	N	Y	Y
Hazlett, W.	WEST	II	AQ	N	Y	Y
Mardell , D.	WEST	II	AQ	N	Y	Y
McElhinny, J.	WEST	II	AQ	N	Y	Y
Miller G.	WEST	II	AQ	N	Y	Y
Permuka, J.	WEST	I	AQ	N	Y	Y
Pocratsky, R.	WEST	III	AN	Y	Y	Y
Popovich, R.	WEST	III	AN	Y	Y	Y
Reif, D.	WEST	II	AQ	N	Y	Y
Schachte, D.	WEST	II	AQ	N	Y	Y
Scott, K.	WEST	II	AQ	N	Y	Y
Sekeras, C.	WEST	II	AQ	N	Y	Y
Walsh, M.	WEST	II	AQ	N	Y	Y
Young, J.	WEST	II	AQ	N	Y	Y
Childers, J.	WILTEC	IIA	AN	Y	Y	Y
King, J.	ZETEC	II	AQ	N	Y	Y
Osborne, J.	ZETEC	II	AQ	N	Y	Y

FIGURE A.2

MODEL D-5 TUBE SUPPORT PLATE LOCATIONS



Note: Tube Support Plate dimensions are from centerline to centerline.

ATTACHMENT B

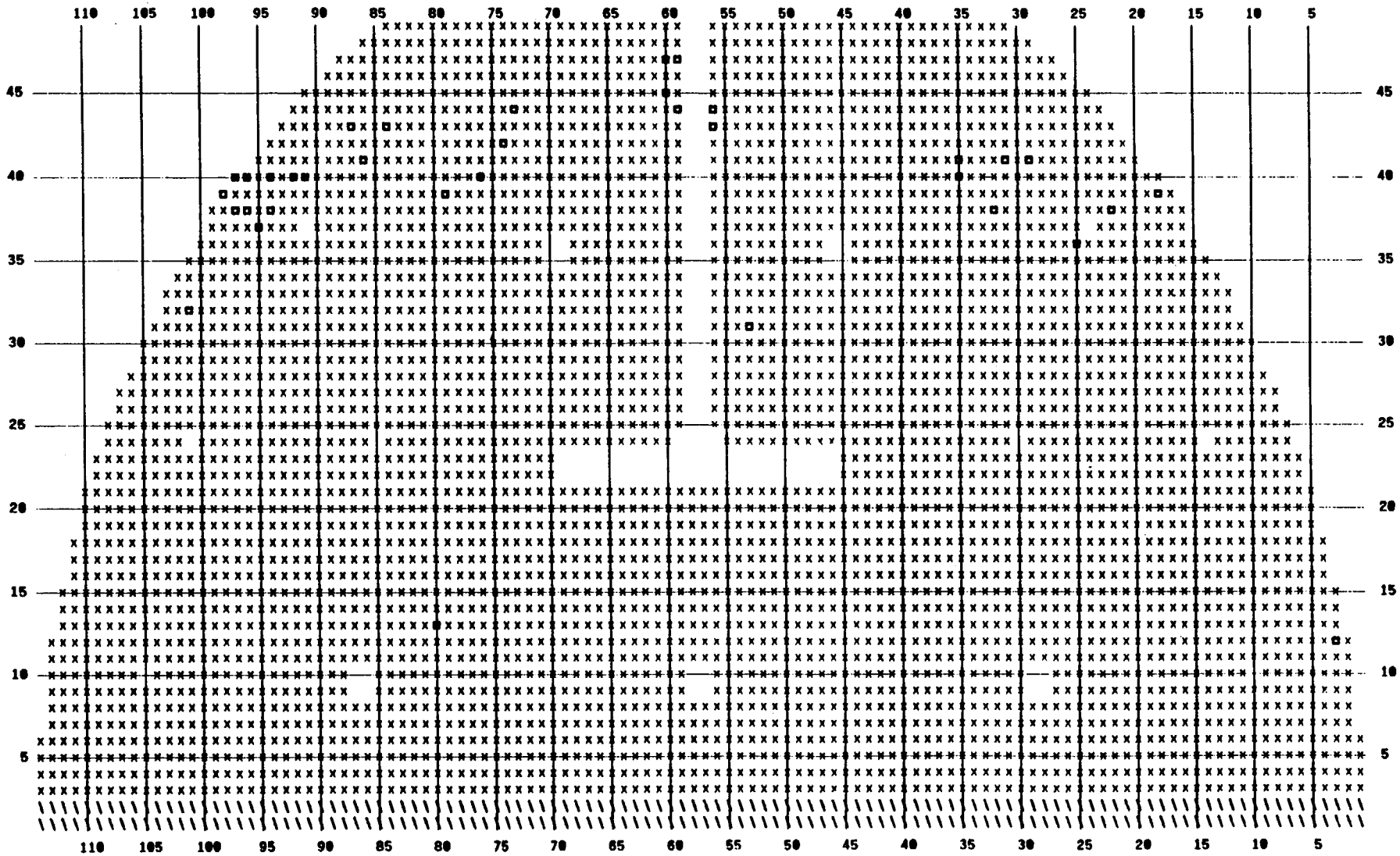
CDE-A COLD LEG BOBBIN PROGRAM

ETSS #01-BWD2-499-Bobbin
Braidwood A2R07 CDE D5

x 4307 TEST FULL LENGTH

\ 228 TEST 11H THROUGH TEH

▫ 35 PLUGGED TUBE



Westinghouse Electric Co. - NSD ST96 05/04/1999 10:25 28

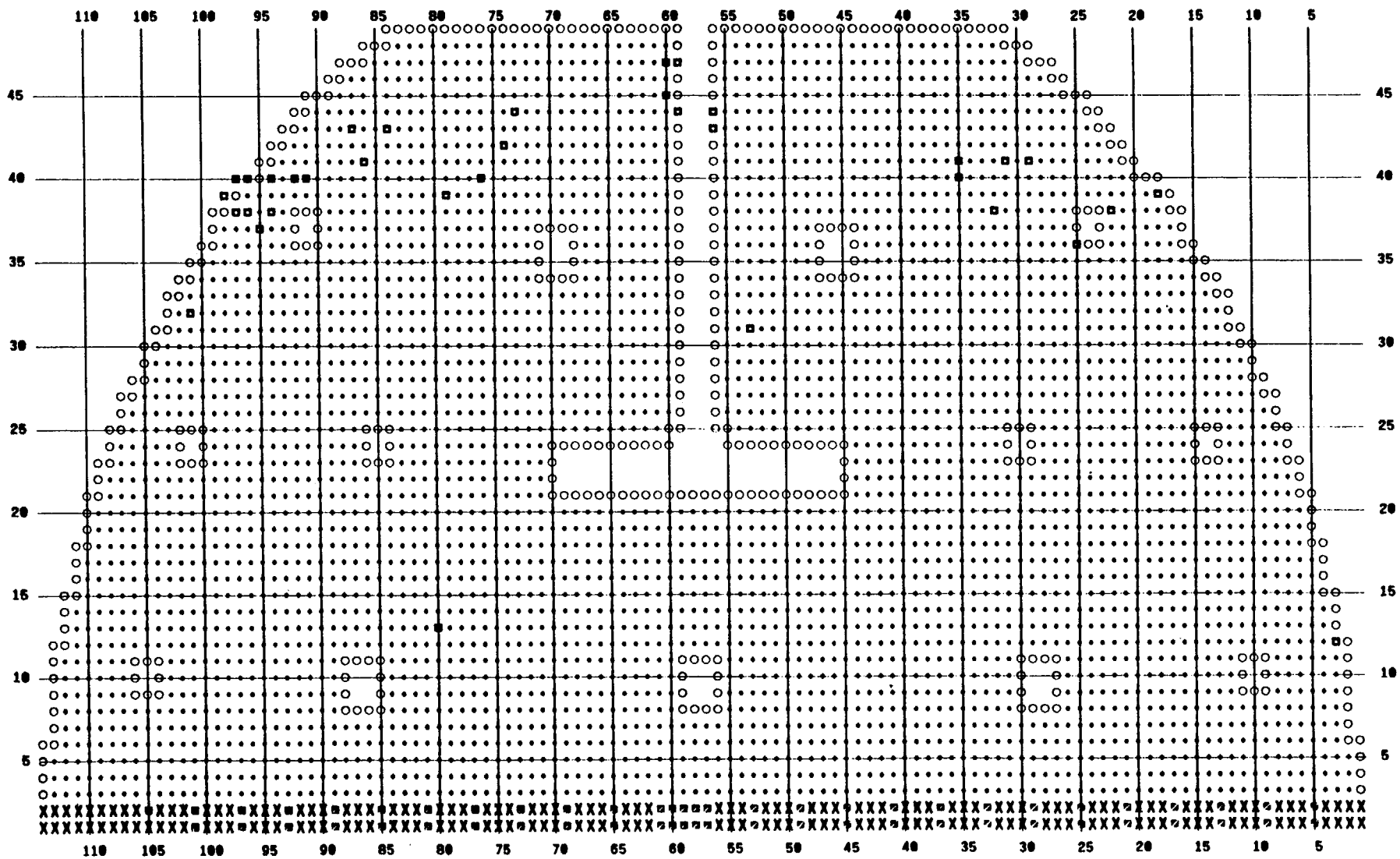
CDE - A HOT LEG BOBBIN PROGRAM

ETSS #01-BWD2-499-Bobbin
Braidwood A2R07 CDE D5

X 171 TEST 11C THROUGH TEH

57 TEST 11H THROUGH TEH

35 PLUGGED TUBE



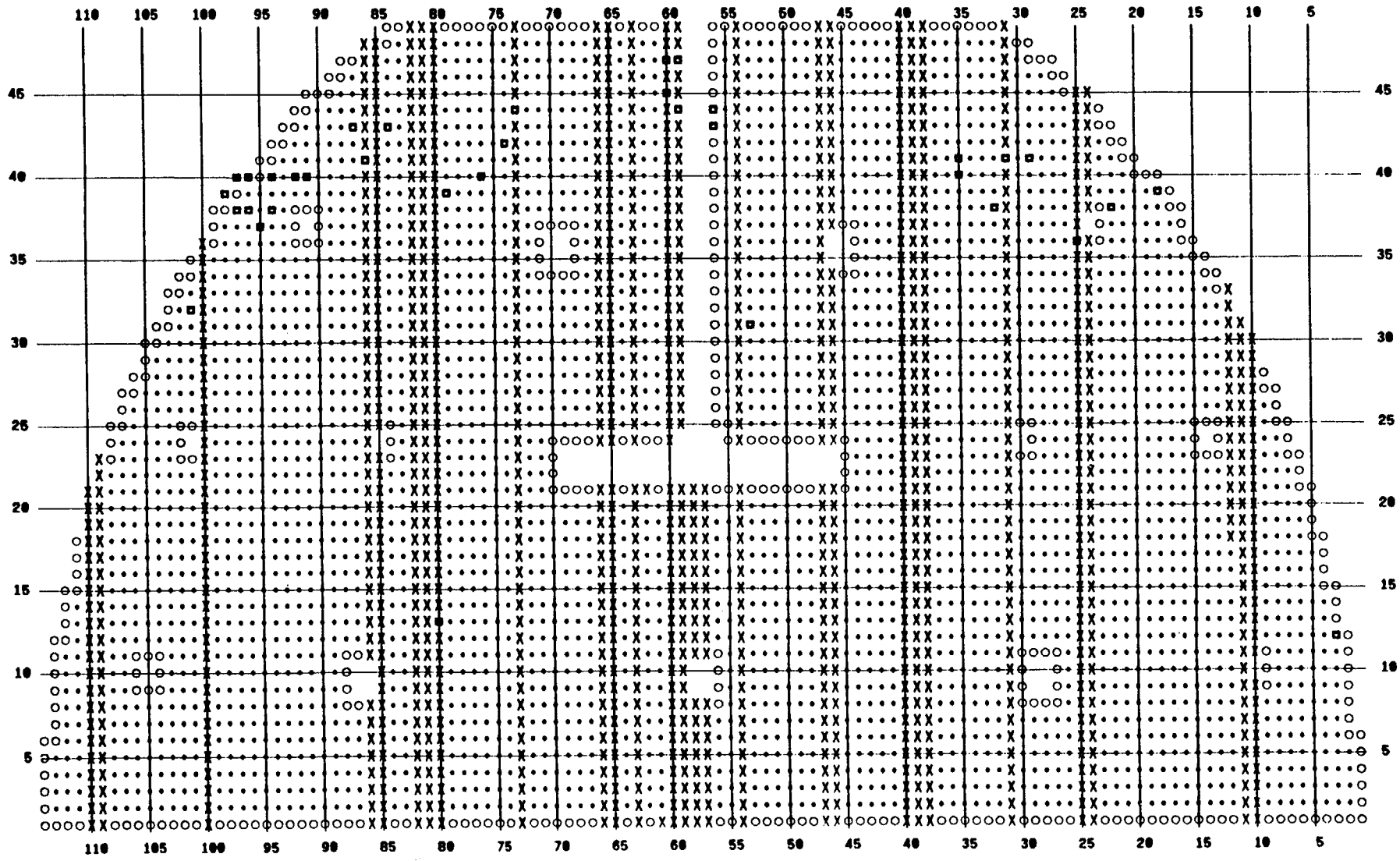
Westinghouse Electric Co - NSD ST96 05/04/1999 10:33:55

CDE-A HOT LEG TOP OF TUBESHEET +POINT PROGRAM

ETSS #02-BWD2-499-+PT. Tube Sheet/Special Interest
Braidwood A2R07 CDE D5

X 1134 TEST TOP OF TUBESHEET -/+ 3 INCHES

◘ 35 PLUGGED TUBE



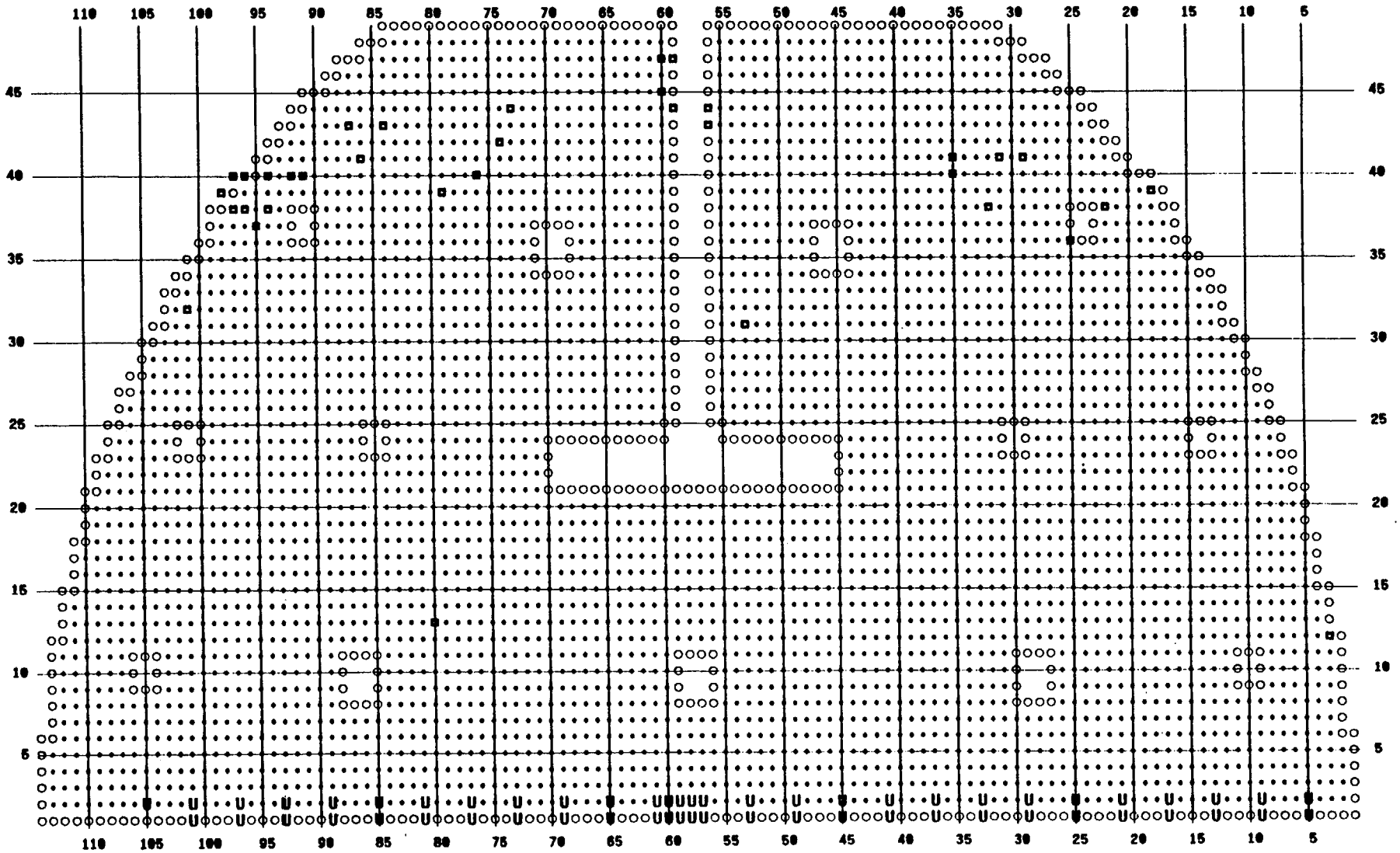
Westinghouse Electric Co - NSD STR8 05/04/1999 10 22 37

CDE - A U-BEND +POINT PROGRAM

ETSS #03-BWD2-499-+Pt. U-Bend
Braidwood A2R07 CDE D5

U 57 TEST THROUGH U-BEND

▫ 35 PLUGGED TUBE



Westinghouse Electric Co. - NSD ST96 05/04/1999 10 26 14

CDE - A HOT LEG SPECIAL INTEREST +POINT PROGRAM

ETSS #02-BWD2-499-+Pt. Tube Sheet/Special Interest Revision 1
Braidwood A2R07 CDE D5

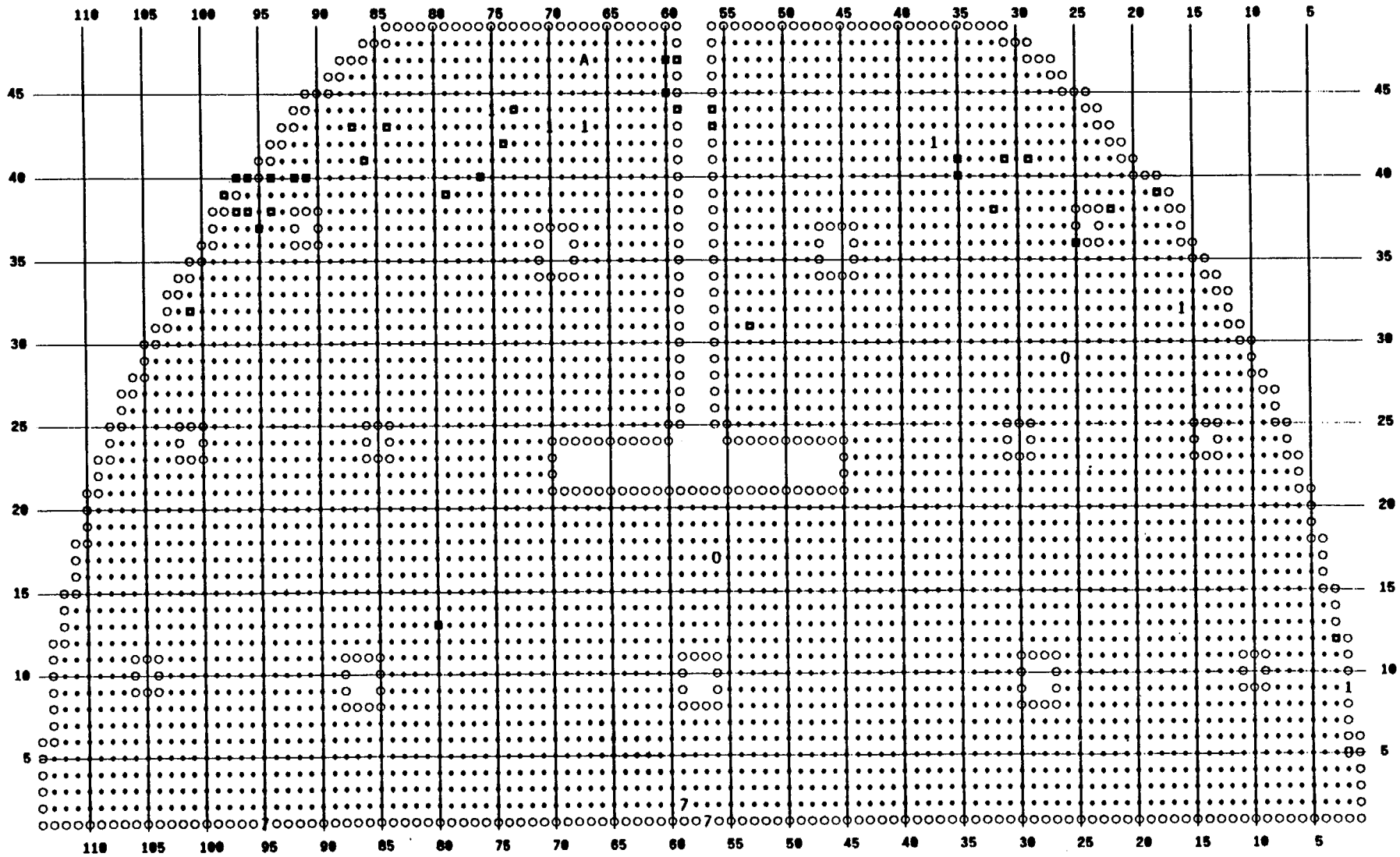
1 7 TEST 11H -/+ 2"

0 3 TEST 10H THROUGH 11H

7 3 TEST 07H -/+ 2"

A 1 TEST 05H -9" THROUGH 05H

▫ 35 PLUGGED TUBE



Westinghouse Electric Co. - NSD ST96 05/04/1999 10:33:05

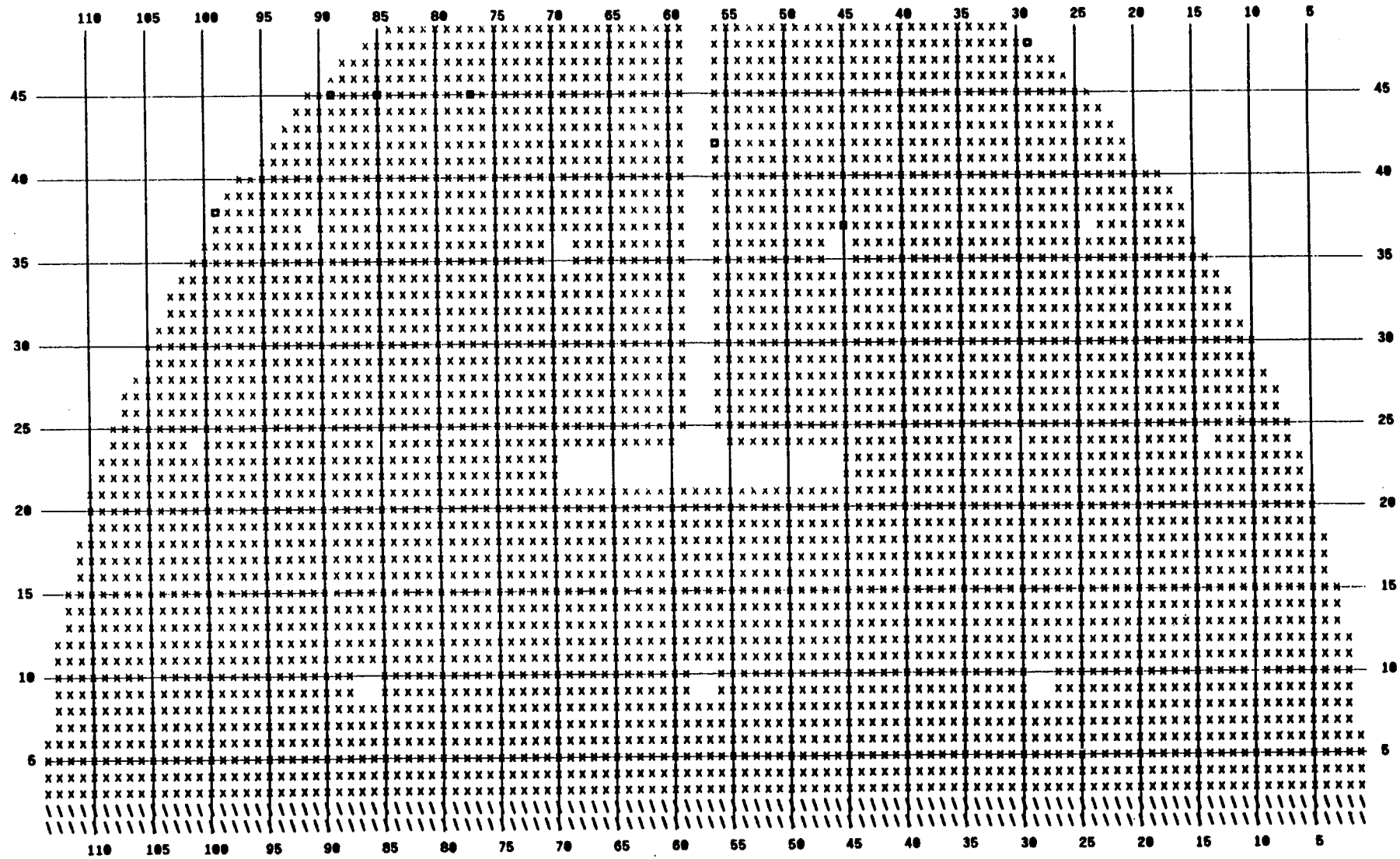
CDE-B COLD LEG BOBBIN PROGRAM

ETSS #01-BWD2-499-Bobbin
Braidwood A2R07 CDE D5

x 4335 TEST FULL LEGNTH

\ 228 TEST 11H THROUGH TEH

◘ 7 PLUGGED TUBE



Westinghouse Electric Co - NSD ST98 05/05/1999 10:02:02

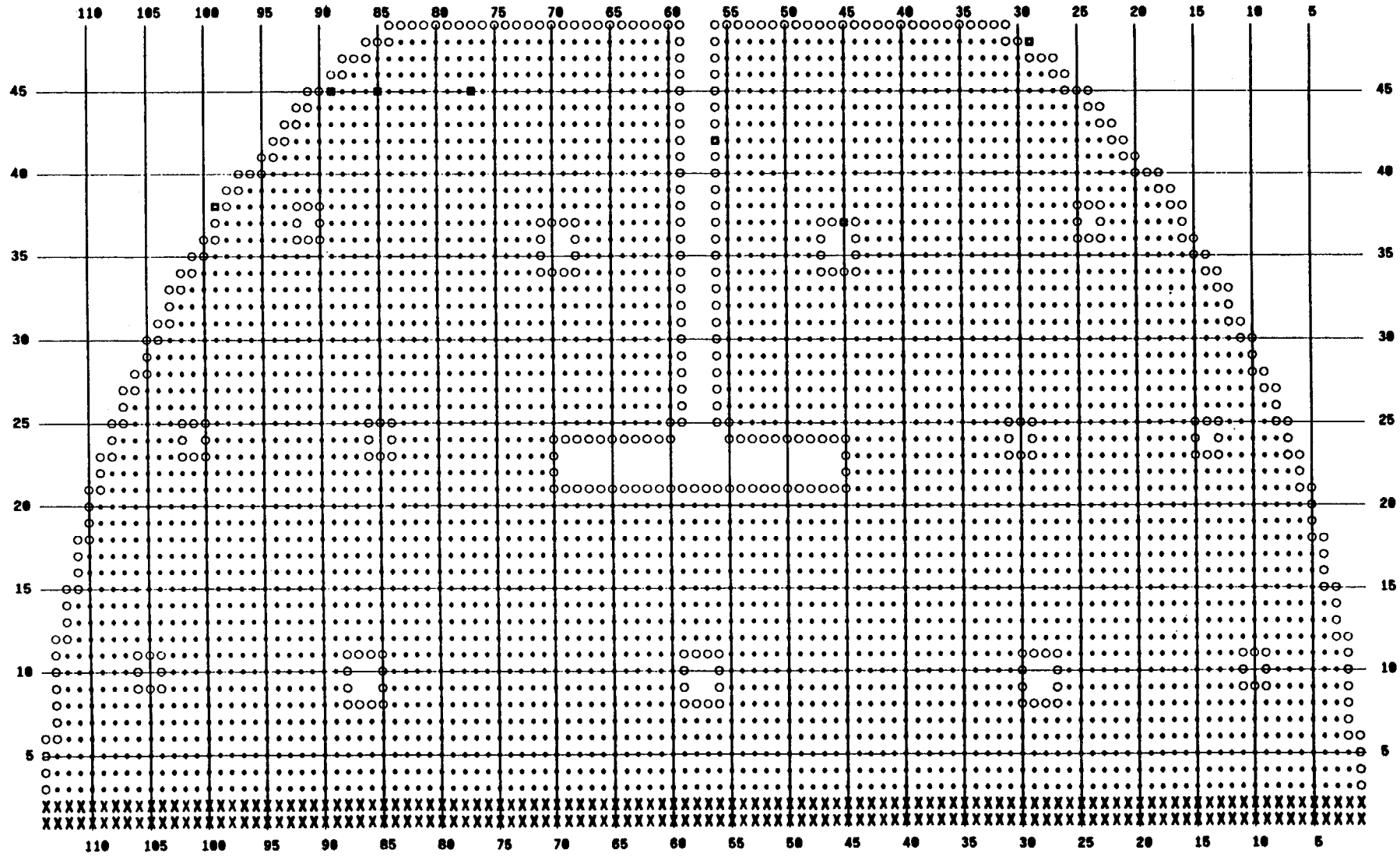
CDE-B HOT LEG BOBBIN PROGRAM

ETSS #01-BWD2-499-Bobbin
Braidwood A2R07 CDE D5

X 171 TEST 11C THROUGH TEH

X 57 TEST 11H THROUGH TEH

◘ 7 PLUGGED TUBE



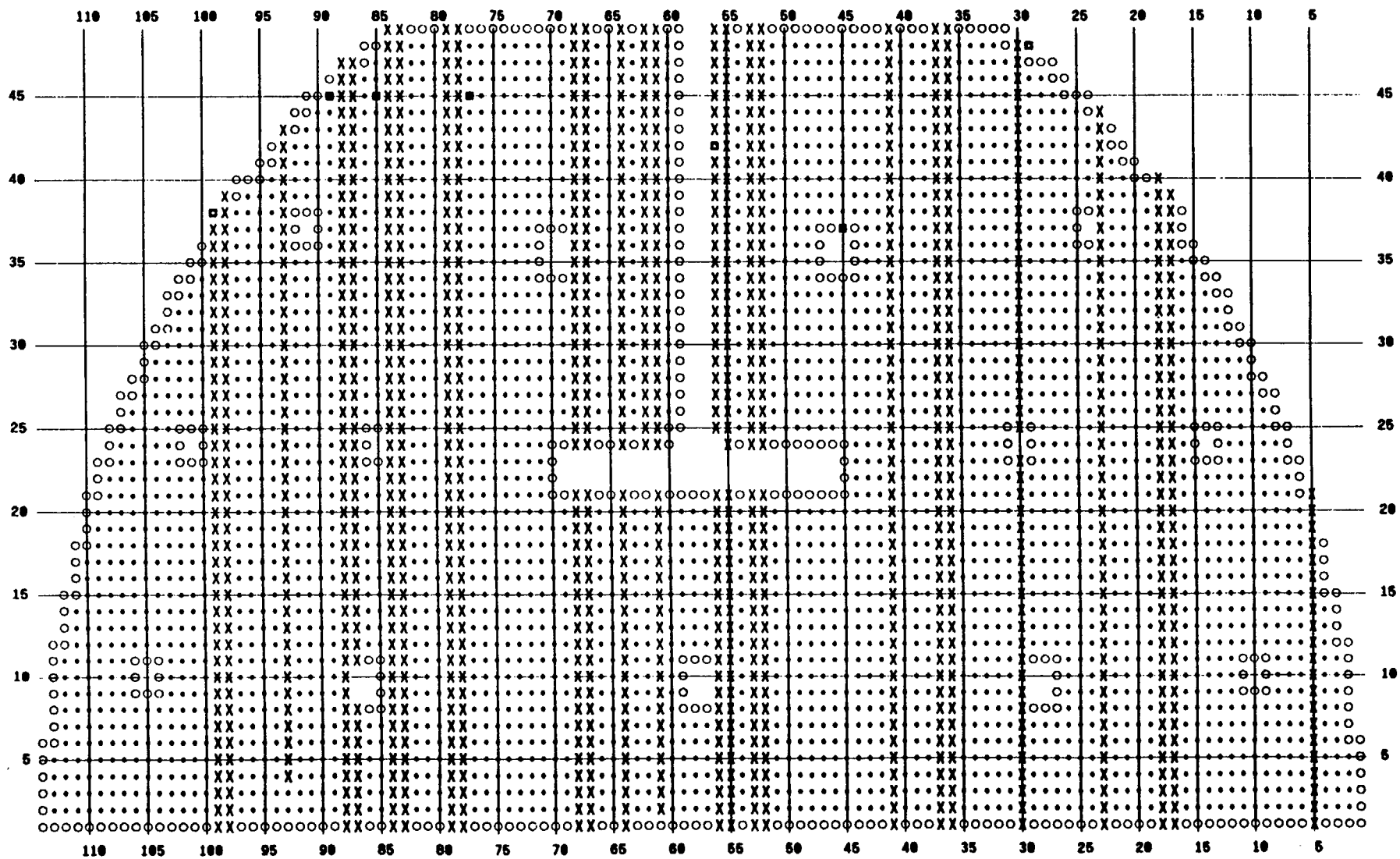
Westinghouse Electric Co. - NSD ST98 05/05/1999 10 02 53

CDE-B HOT LEG TOP OF TUBESHEET +POINT PROGRAM

ETSS #02-BWD2-499-+Pt. Tube Sheet/Special Interest
Braidwood A2R07 CDE D5

X 1141 TEST TOP OF TUBESHEET -/+ 3 INCHES

◘ 7 PLUGGED TUBE



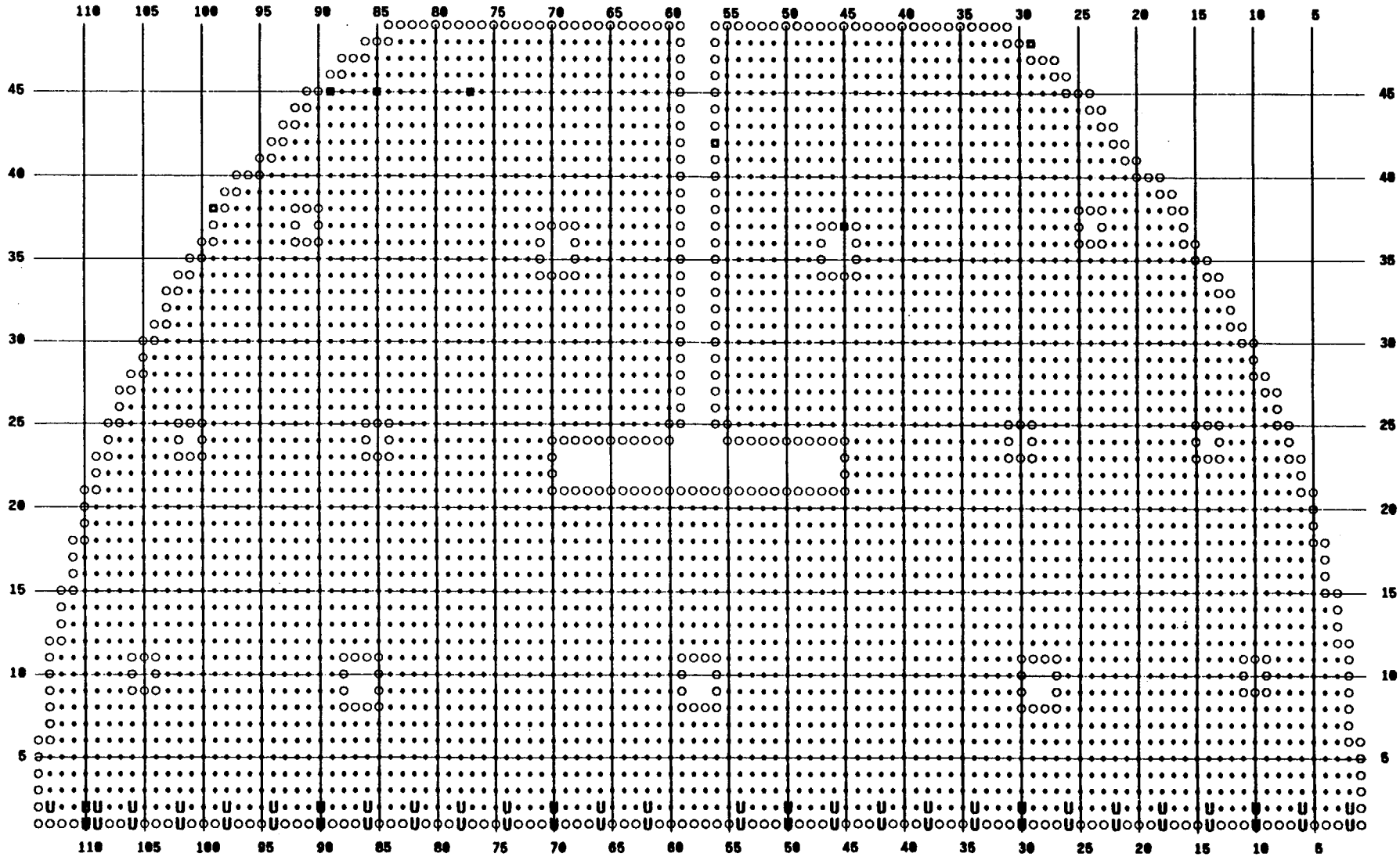
Westinghouse Electric Co. - NSD ST98 05/05/1999 10 03 37

CDE-B U-BEND +POINT PROGRAM

ETSS #03-BWD2-499-+Pt. U-Bend
Braidwood A2R07 CDE D5

U 57 TEST THROUGH U-BEND

◘ 7 PLUGGED TUBE



Westinghouse Electric Co - NSD ST96 05/05/1999 10 04 48

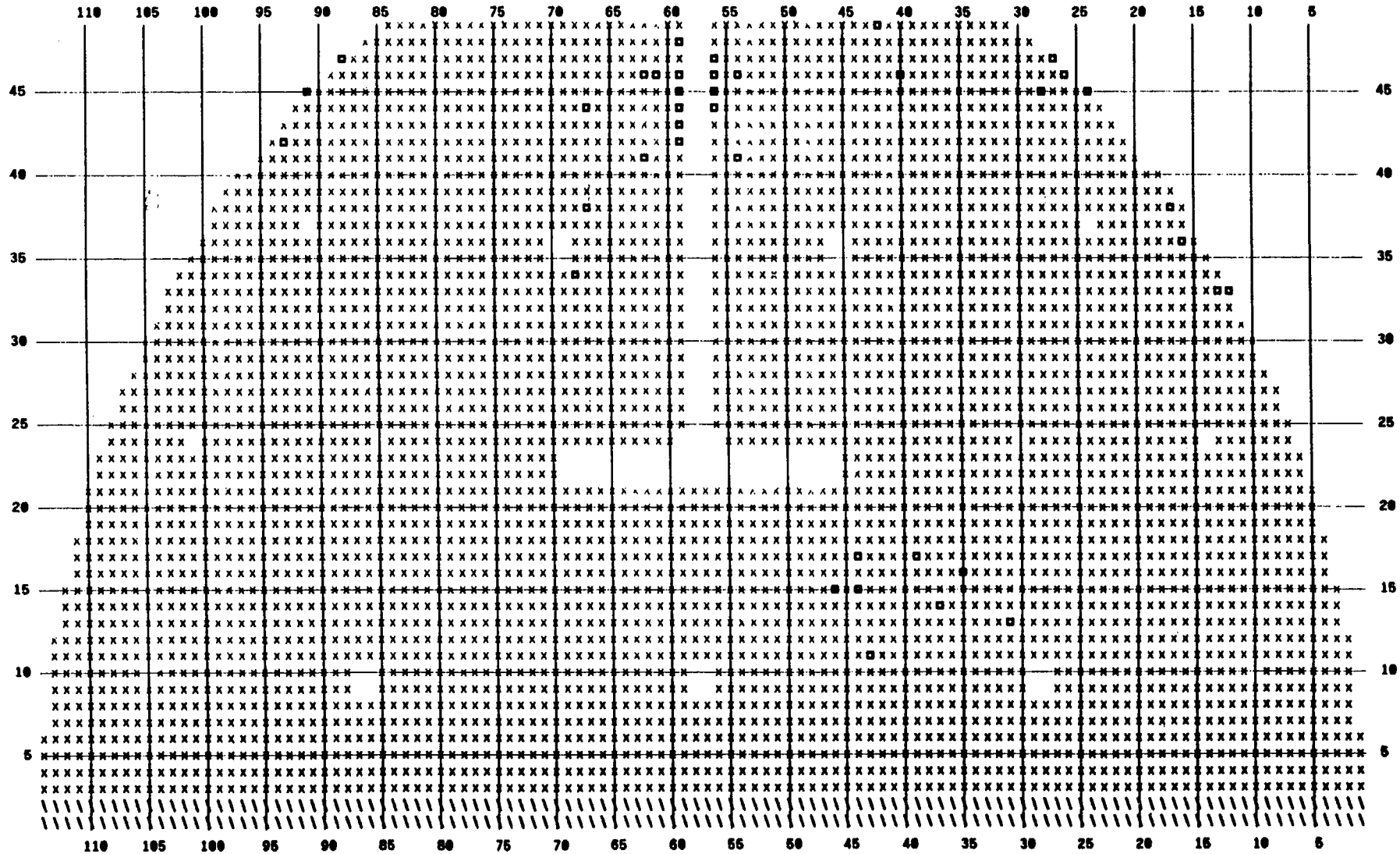
CDE-C COLD LEG BOBBIN PROGRAM

ETSS #01-BWD2-499-Bobbin
Braidwood A2R07 CDE D5

x 4303 TEST FULL LENGTH

\ 228 TEST 11C THROUGH TEC

▫ 39 PLUGGED TUBE



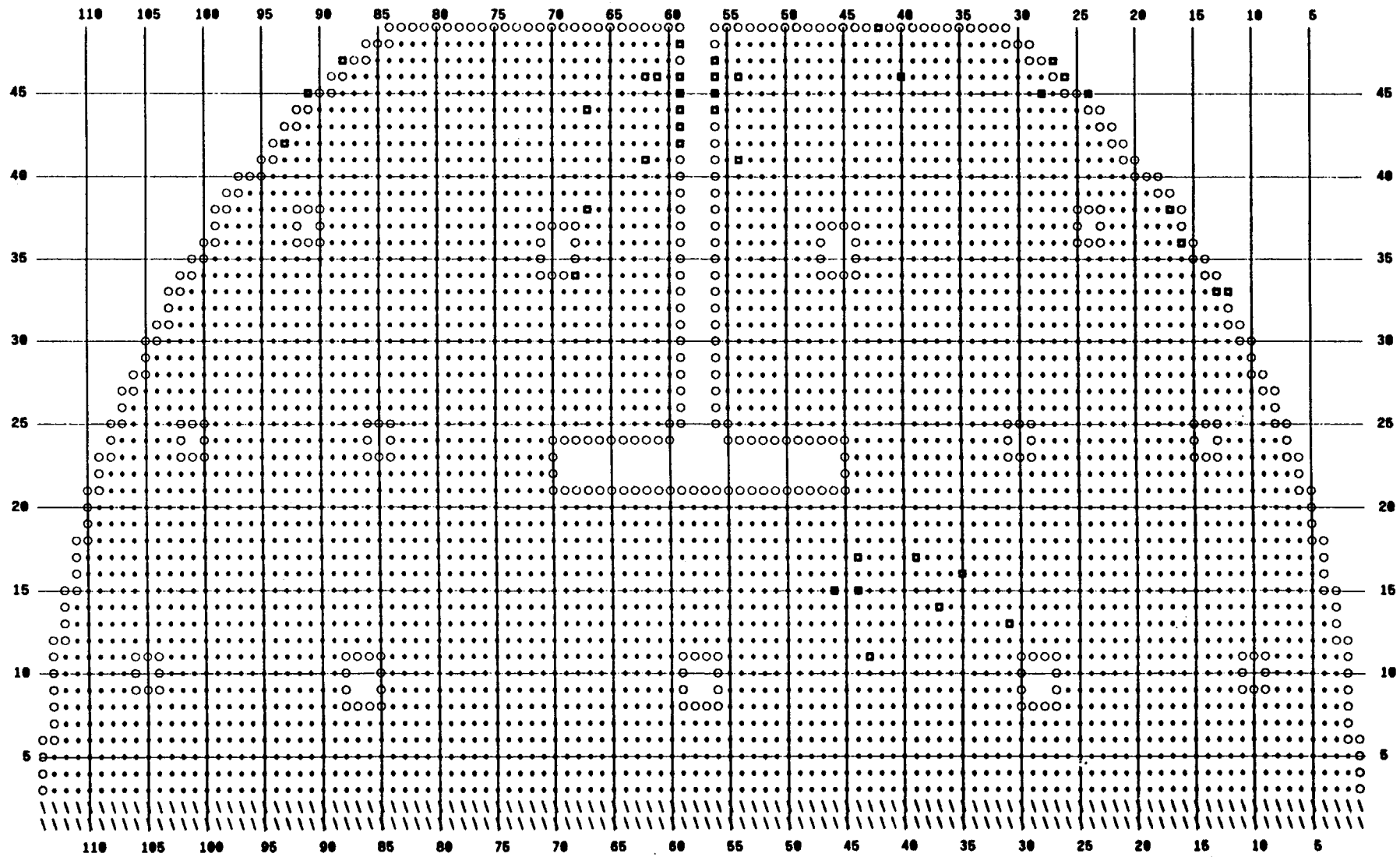
Westinghouse Electric Co. - NSD ST96 05/05/1999 09.28.20

CDE-C HOT LEG BOBBIN PROGRAM

ETSS #01-BWD2-499-Bobbin
Braidwood A2R07 CDE D5

\ 228 TEST 11H THROUGH TEH

▫ 39 PLUGGED TUBE



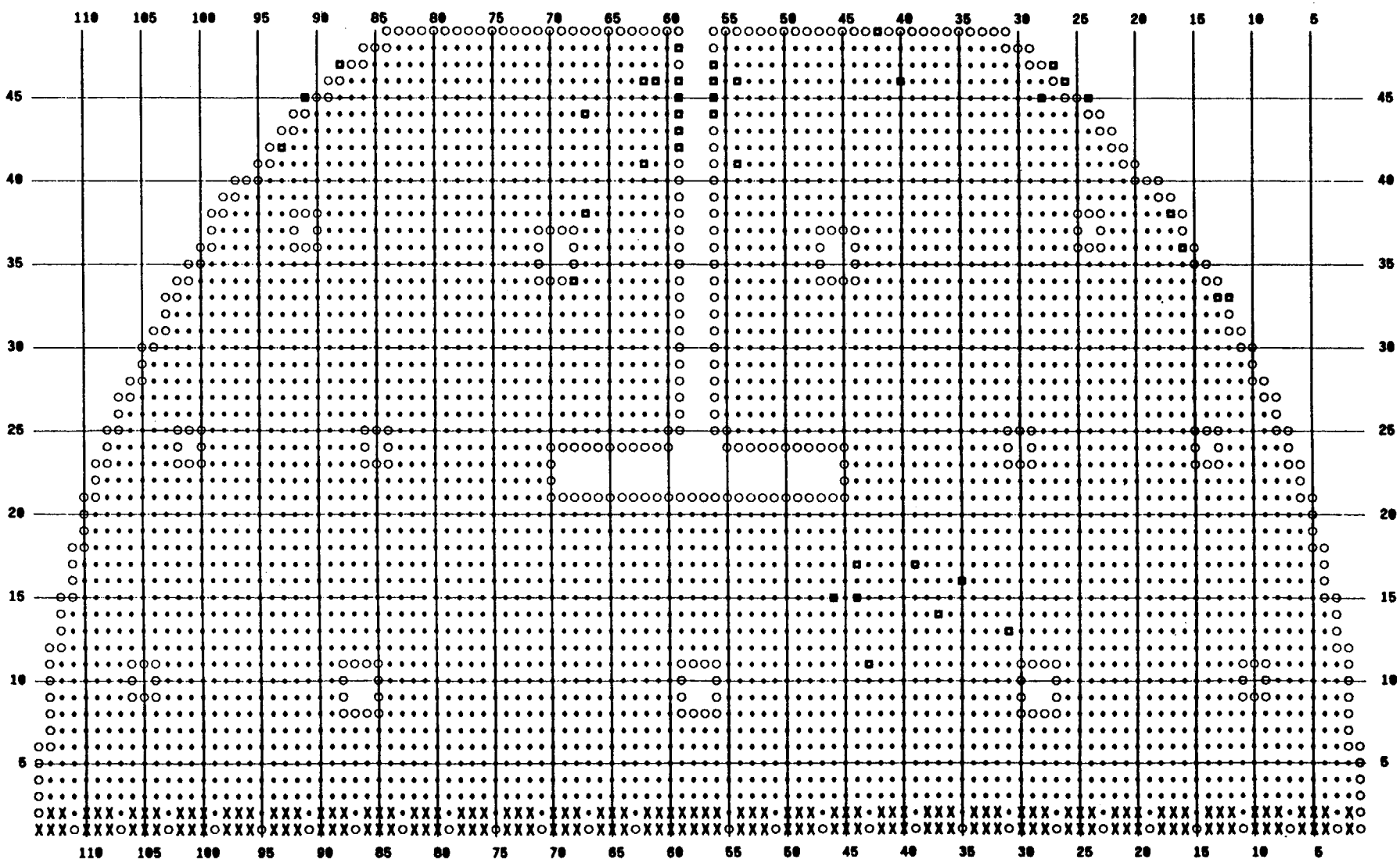
Westinghouse Electric Co. - NSD ST98 05/05/1999 09:29:24

CDE-C U-BEND BOBBIN PROGRAM

ETSS #01-BWD2-499-Bobbin
Braidwood A2R07 CDE D5

X 171 TEST 11C THROUGH 10H

▫ 39 PLUGGED TUBE



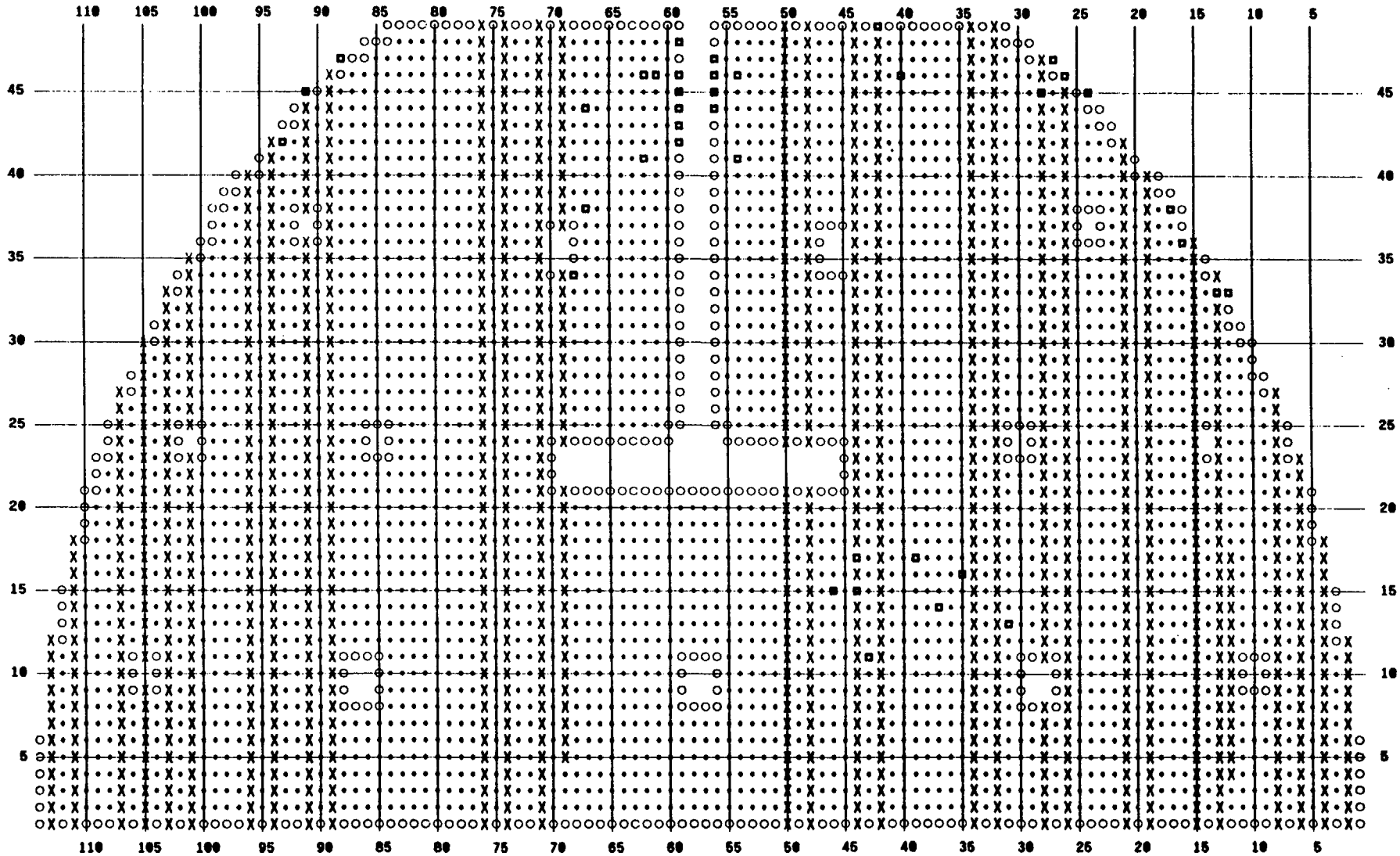
Westinghouse Electric Co. - NSD ST98 05/05/1999 12:31:08

CDE-C HOT LEG TOP OF TUBESHEET +POINT PROGRAM

ETSS #02-BWD2-499-+Pt. Tube Sheet/Special Interest
Braidwood A2R07 CDE D5

X 1133 TEST TOP OF TUBESHEET -/+ 3 INCHES

▫ 39 PLUGGED TUBE



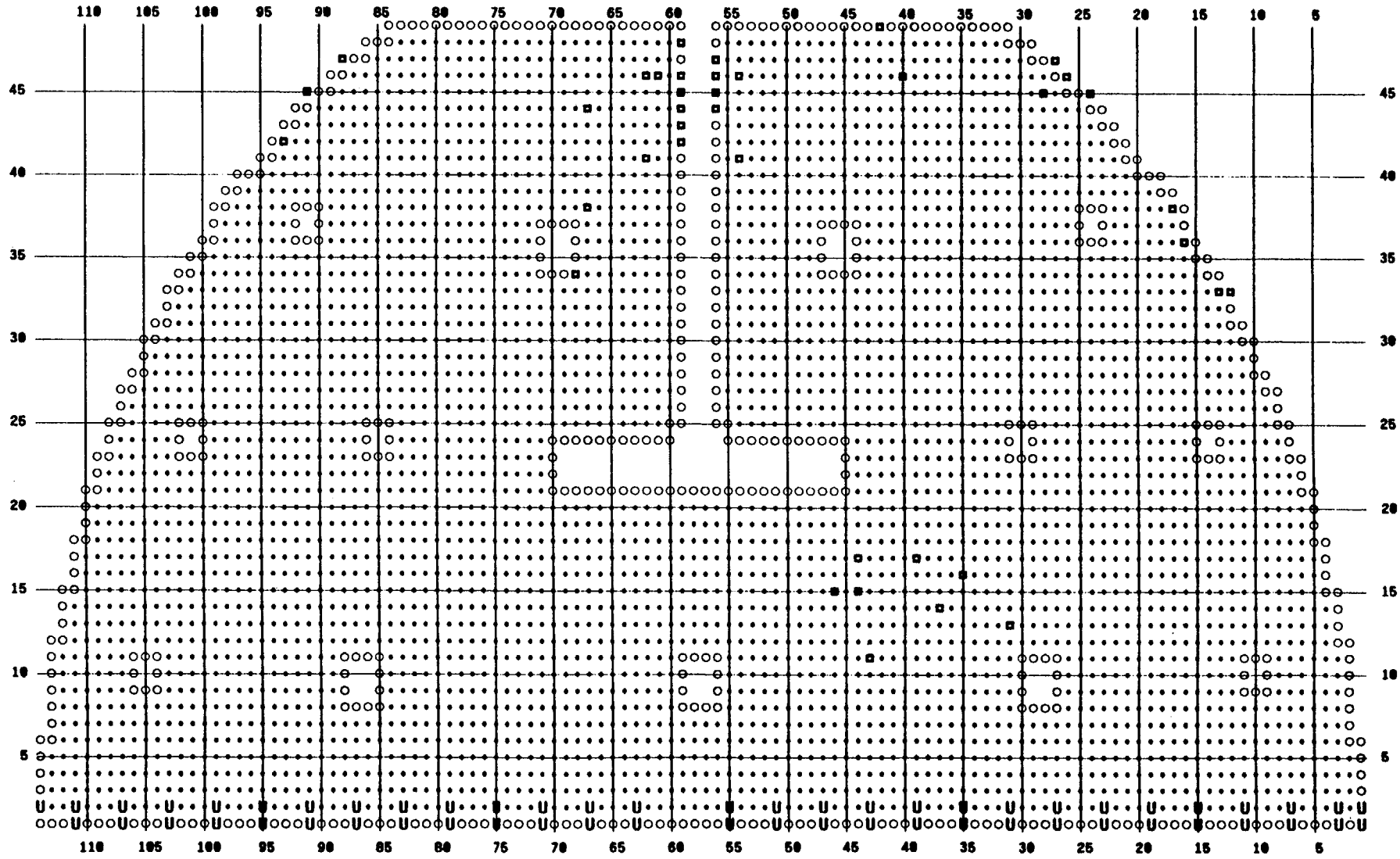
Westinghouse Electric Co. - NSD 8T98 05/05/1999 09:30:47

CDE-C U-BEND +POINT PROGRAM

ETSS #03-BWD2-499-+Pt. U-Bend
Braidwood A2R07 CDE D5

U 57 TEST THROUGH U-BEND

▫ 39 PLUGGED TUBE



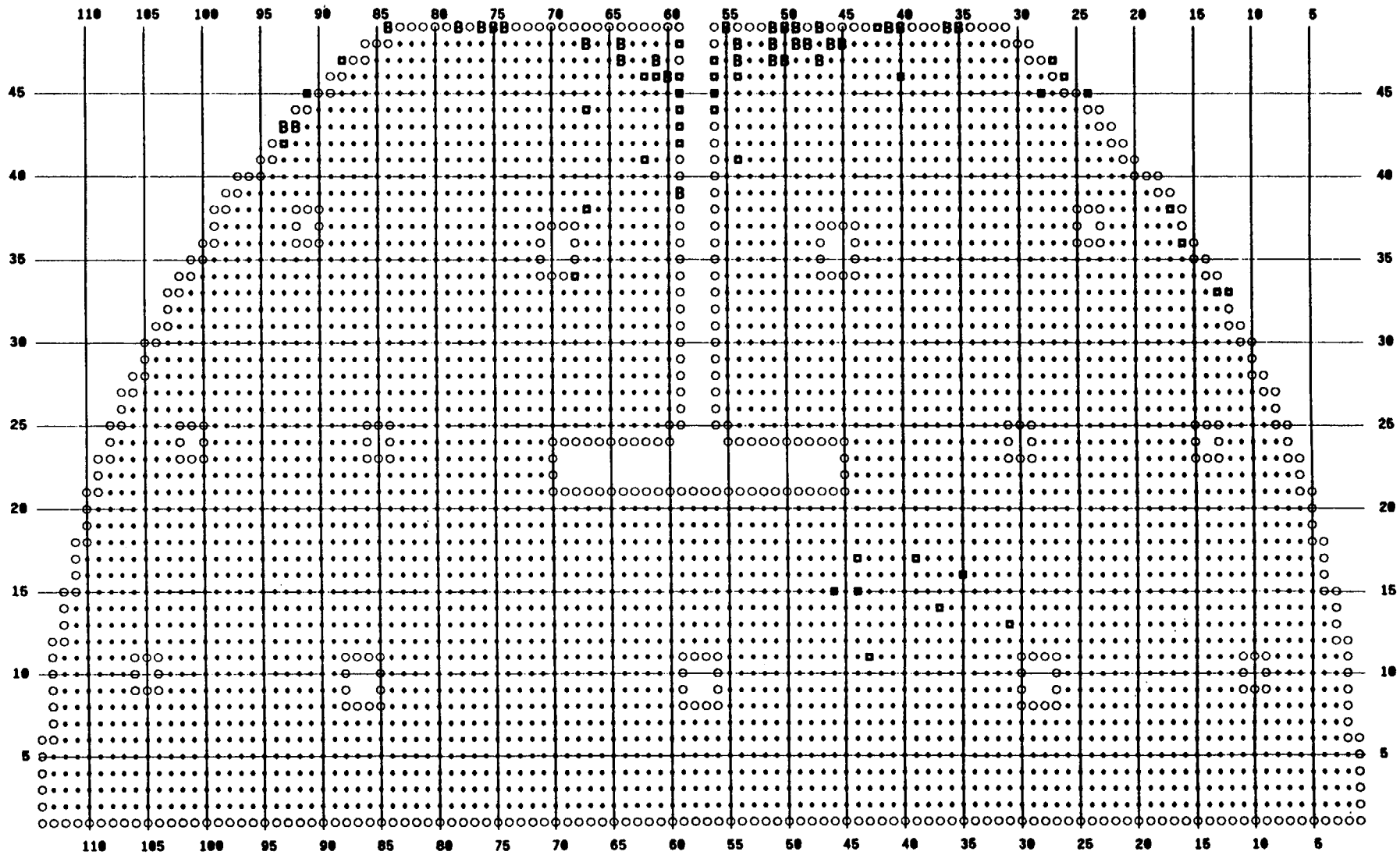
Westinghouse Electric Co - NSD ST98 05/05/1999 09:31 47

CDE-C EXPANDED BAFFLE +POINT PROGRAM

ETSS #02-BWD2-499-+Pt. Tube Sheet/Special Interest
Braidwood A2R07 CDE D5

B 32 TEST 02C AND 03C -/+ 2 INCHES

▫ 39 PLUGGED TUBE



Westinghouse Electric Co. - NSD ST08 05/05/1999 12 26 12

CDE-C HOT LEG SPECIAL INTEREST +POINT PROGRAM

ETSS #02-BWD2-499-+Pt. Tube Sheet/Special Interest Revision 1

Braidwood A2R07 CDE D5

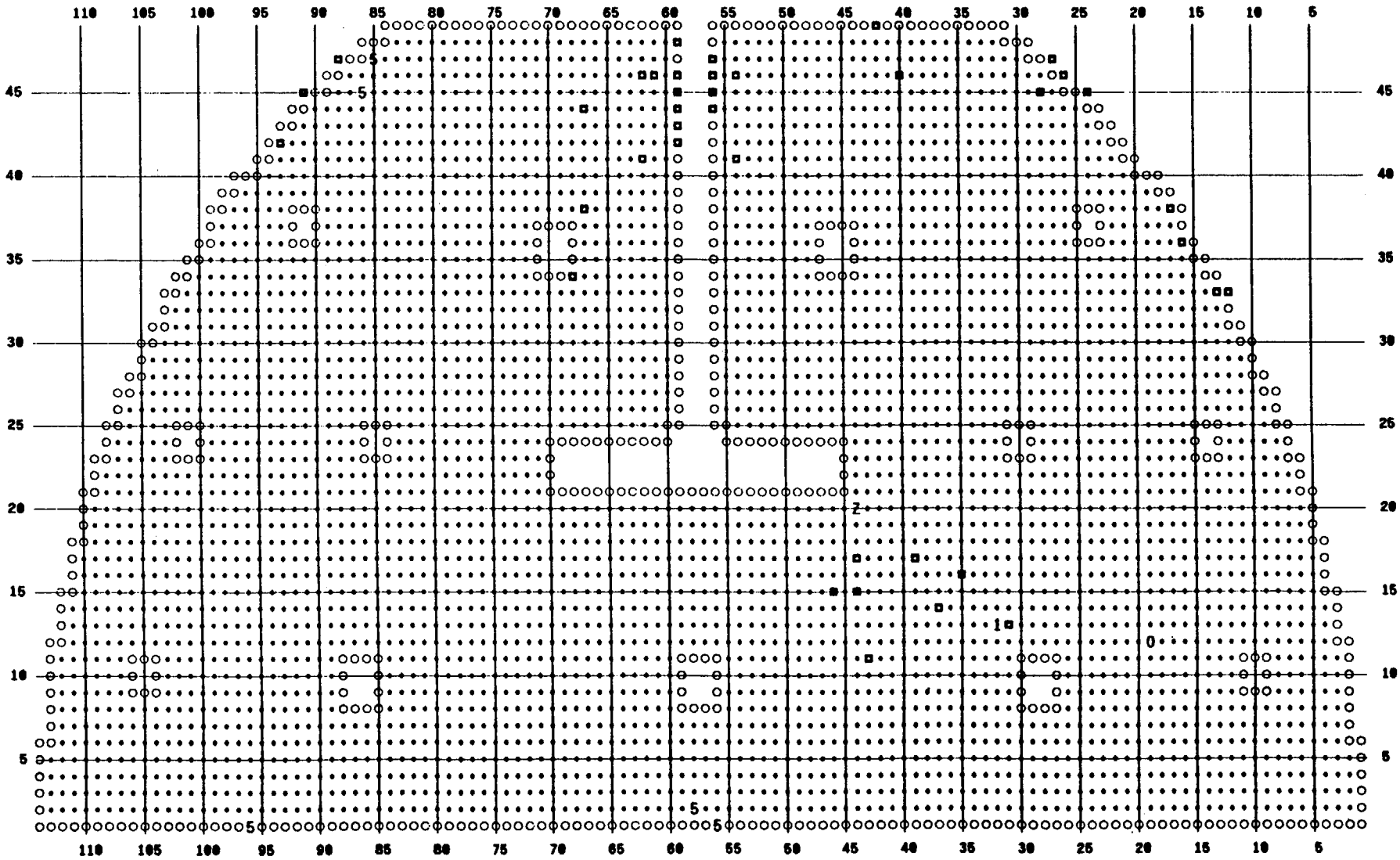
0 1 TEST 10H THROUGH 11H

5 5 TEST 05H -/+ 2 INCHES

Z 1 TEST 05H THROUGH 07H

1 1 TEST 01H THROUGH 03H

▫ 39 PLUGGED TUBE



Westinghouse Electric Co. - NSD STD6 05/05/1999 09:35:58

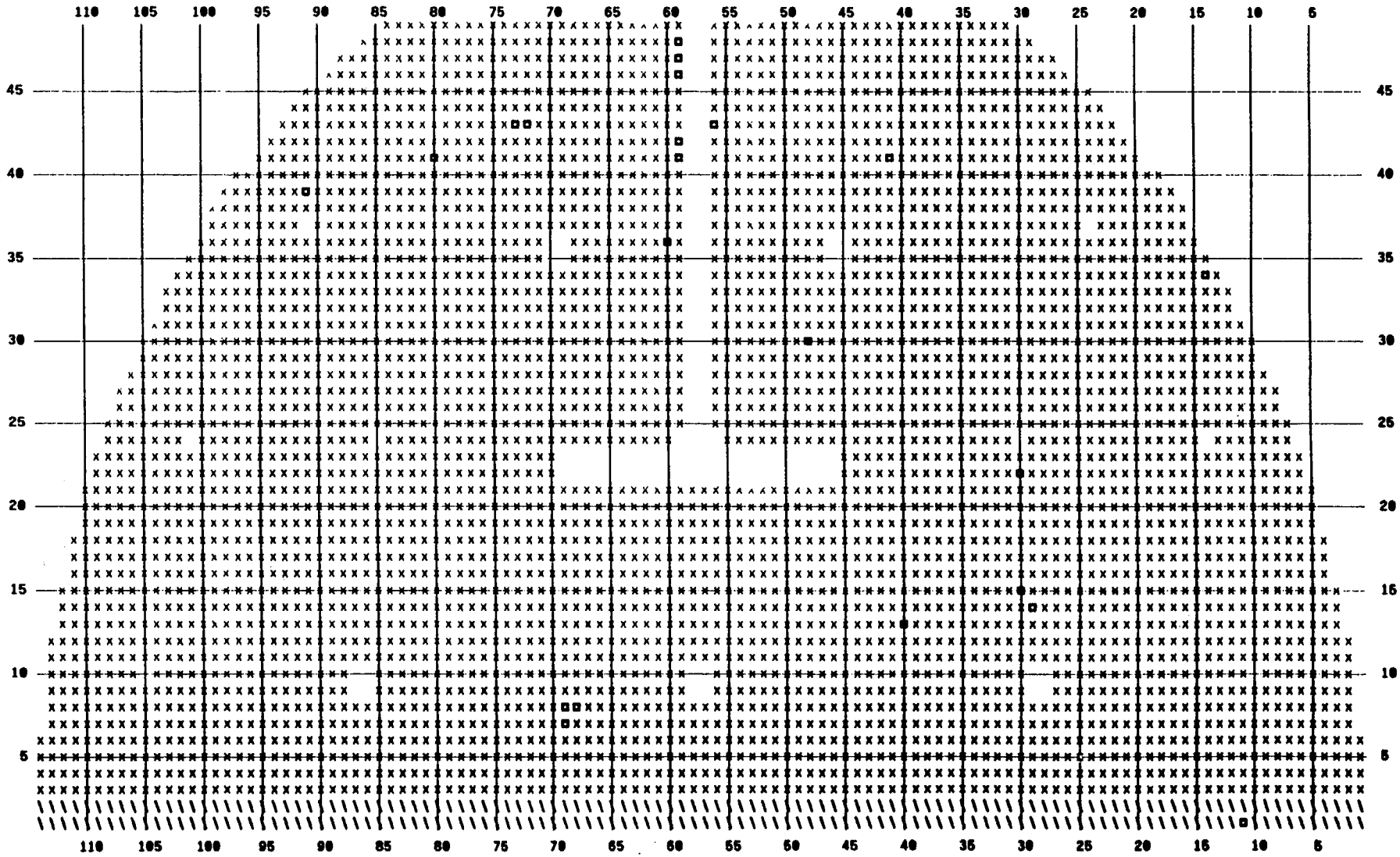
CDE-D COLD LEG BOBBIN PROGRAM

ETSS #01-BWD2-499-Bobbin
Braidwood A2R07 CDE D5

x 4321 TEST FULL LENGTH

\ 227 TEST 11H THROUGH TEH

▫ 22 PLUGGED TUBE



Westinghouse Electric Co - NSD ST98 05/05/1999 09 50 44

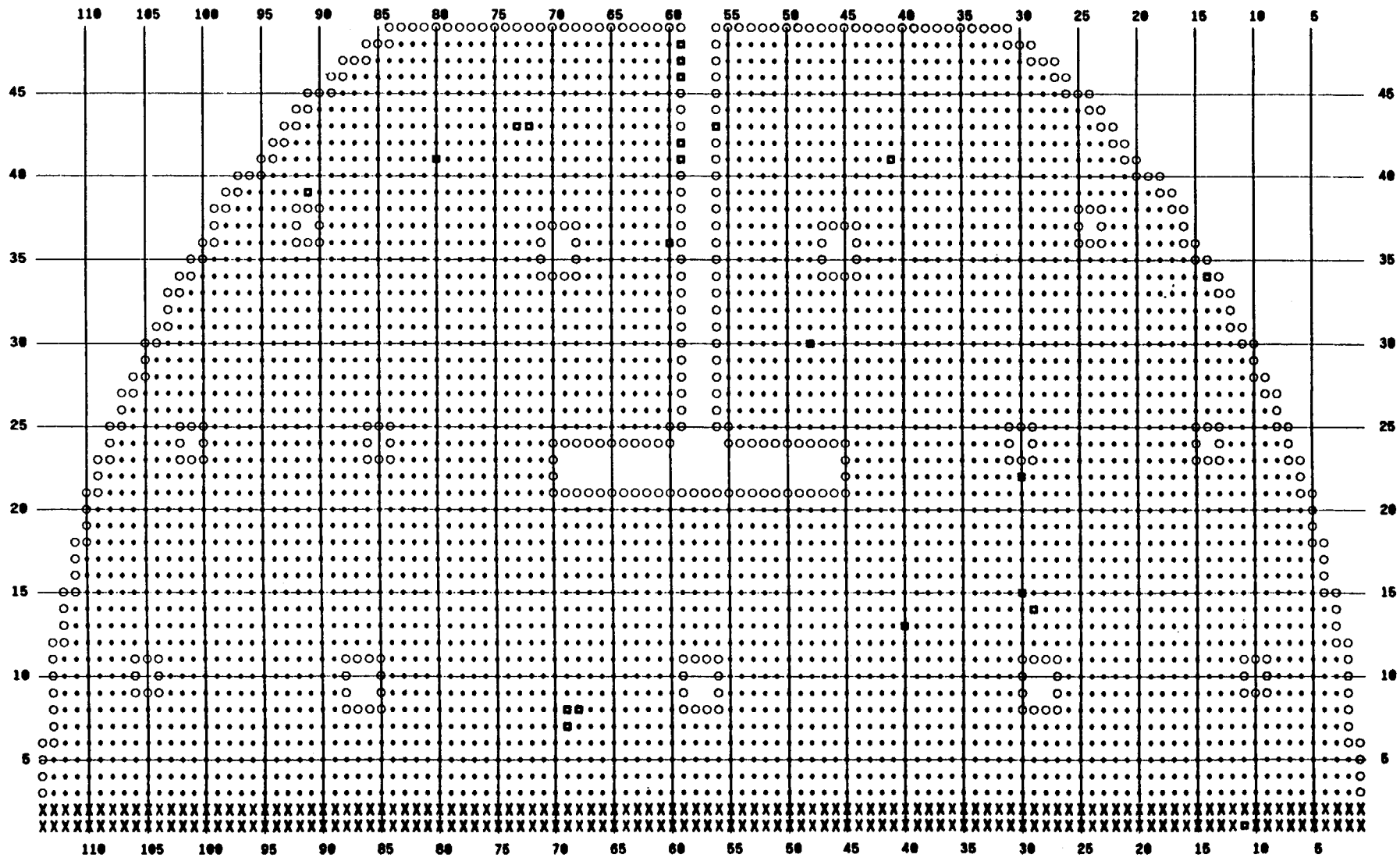
CDE-D HOT LEG BOBBIN PROGRAM

ETSS #01-BWD2-499-Bobbin
Braidwood A2R07 CDE D5

X 170 TEST 11C THROUGH TEH

X 57 TEST 11H THROUGH TEH

▫ 22 PLUGGED TUBE



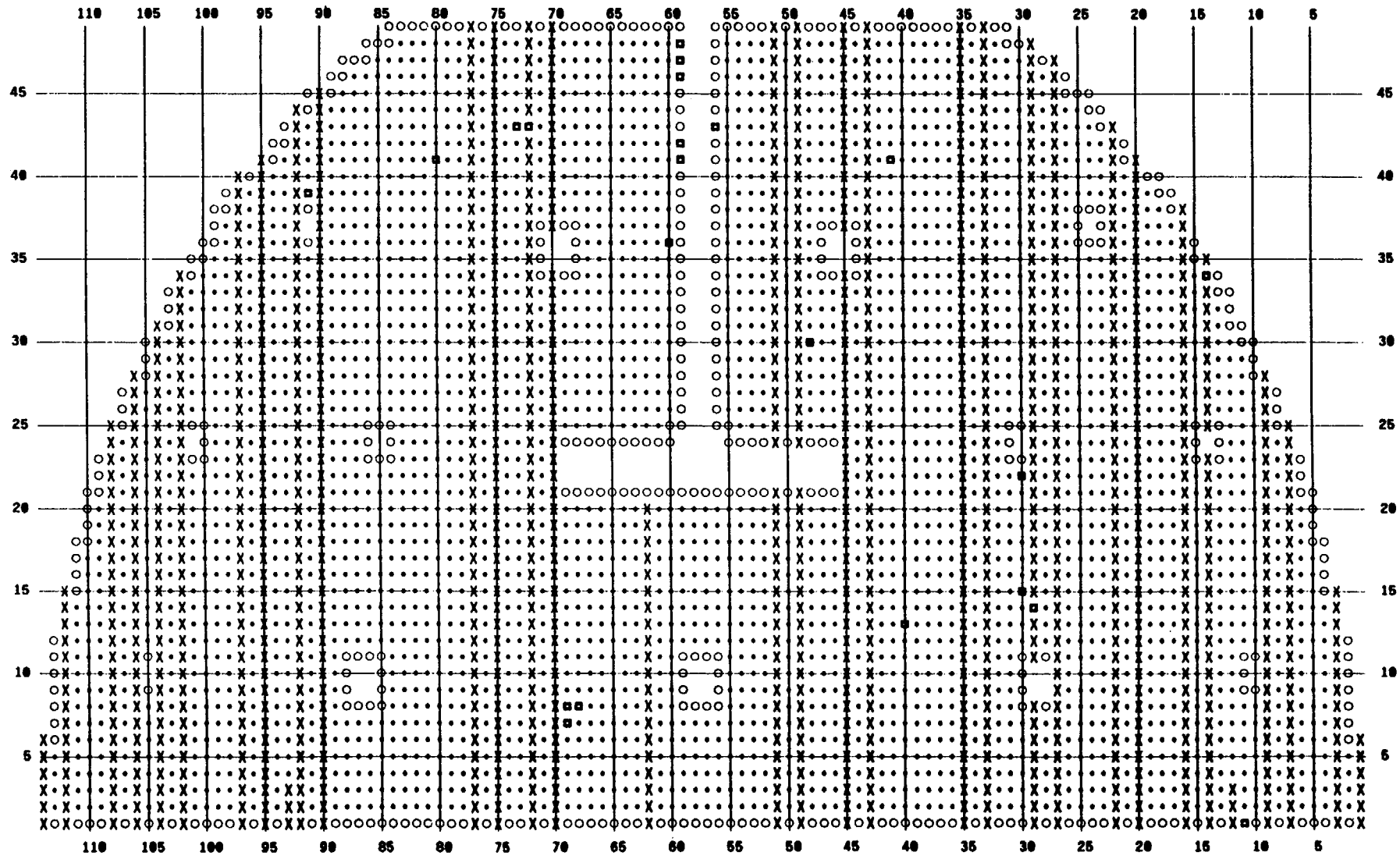
Westinghouse Electric Co. - NSD ST96 05/05/1999 09:51:43

CDE-D HOT LEG TOP OF TUBESHEET +POINT PROGRAM

ETSS #02-BWD2-499-+Pt. Tube Sheet/Special Interest
Braidwood A2R07 CDE D5

X 1137 TEST TOP OF TUBESHEET -/+ 3 INCHES

▫ 22 PLUGGED TUBE



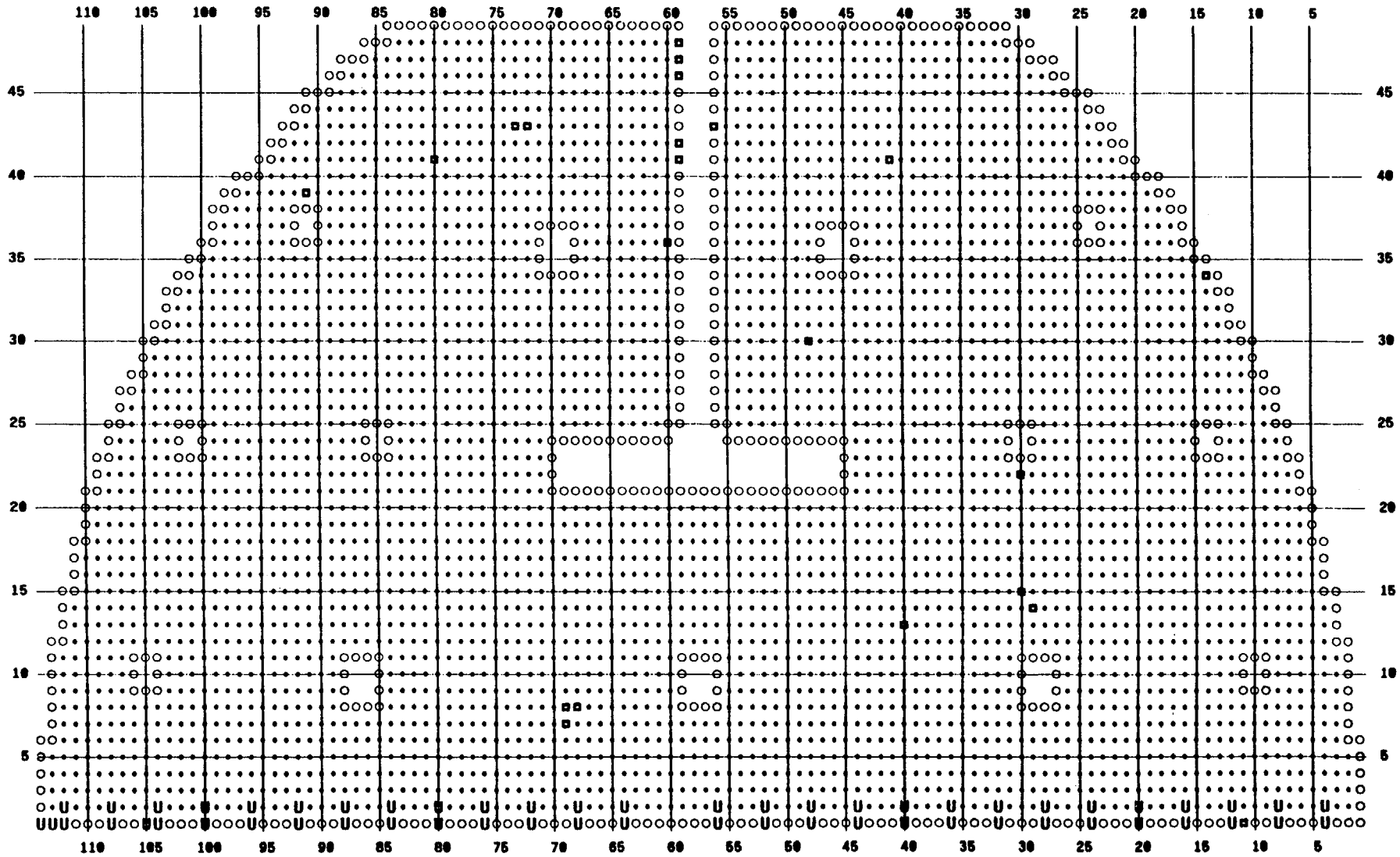
Westinghouse Electric Co. - NSD ST98 05/05/1999 09 52 46

CDE-D U-BEND +POINT PROGRAM

ETSS #03-BWD2-499-+Pt. U-Bend
Braidwood A2R07 CDE D5

▫ 22 PLUGGED TUBE

U 57



Westinghouse Electric Co. - NSD ST98 05/05/1999 09 53 49

CDE-D HOT LEG SPECIAL INTEREST +POINT PROGRAM

ETSS #02-BWD2-499-+Pt. Tube Sheet/Special Interest Revision 1

Braidwood A2R07 CDE D5

H 3 TEST 11H +/- 2 INCHES

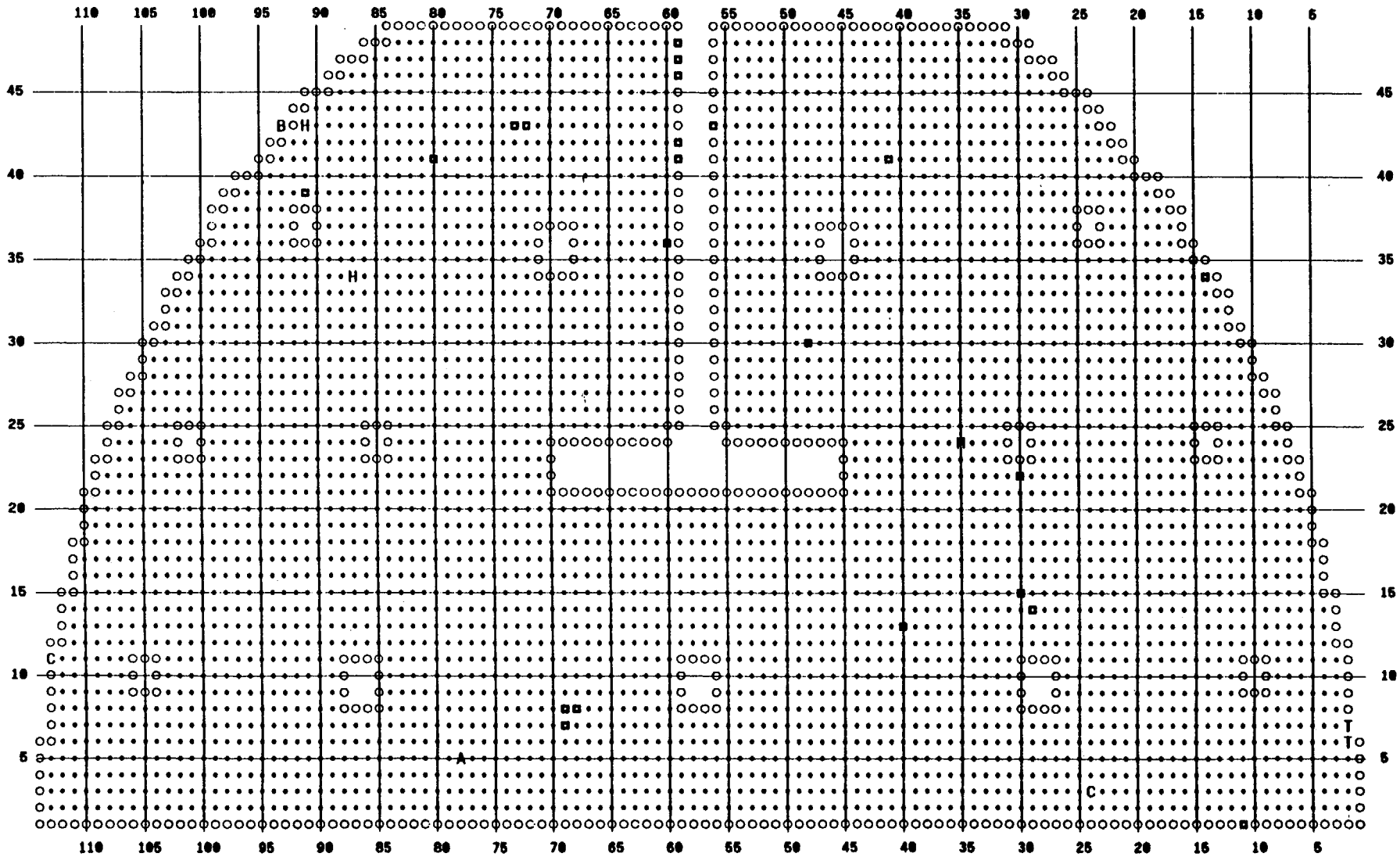
C 2 TEST 10H THROUGH 11H

B 1 TEST 01H THROUGH 03H

A 1 TEST TSH THROUGH 01H

T 2 TEST TOP OF TUBESHEET -/+ 3 INCHES

▫ 22 PLUGGED TUBE



Westinghouse Electric Co - NSD ST96 05/05/1999 09:57:24

ATTACHMENT C

CDE-A AVB WEAR INDICATIONS

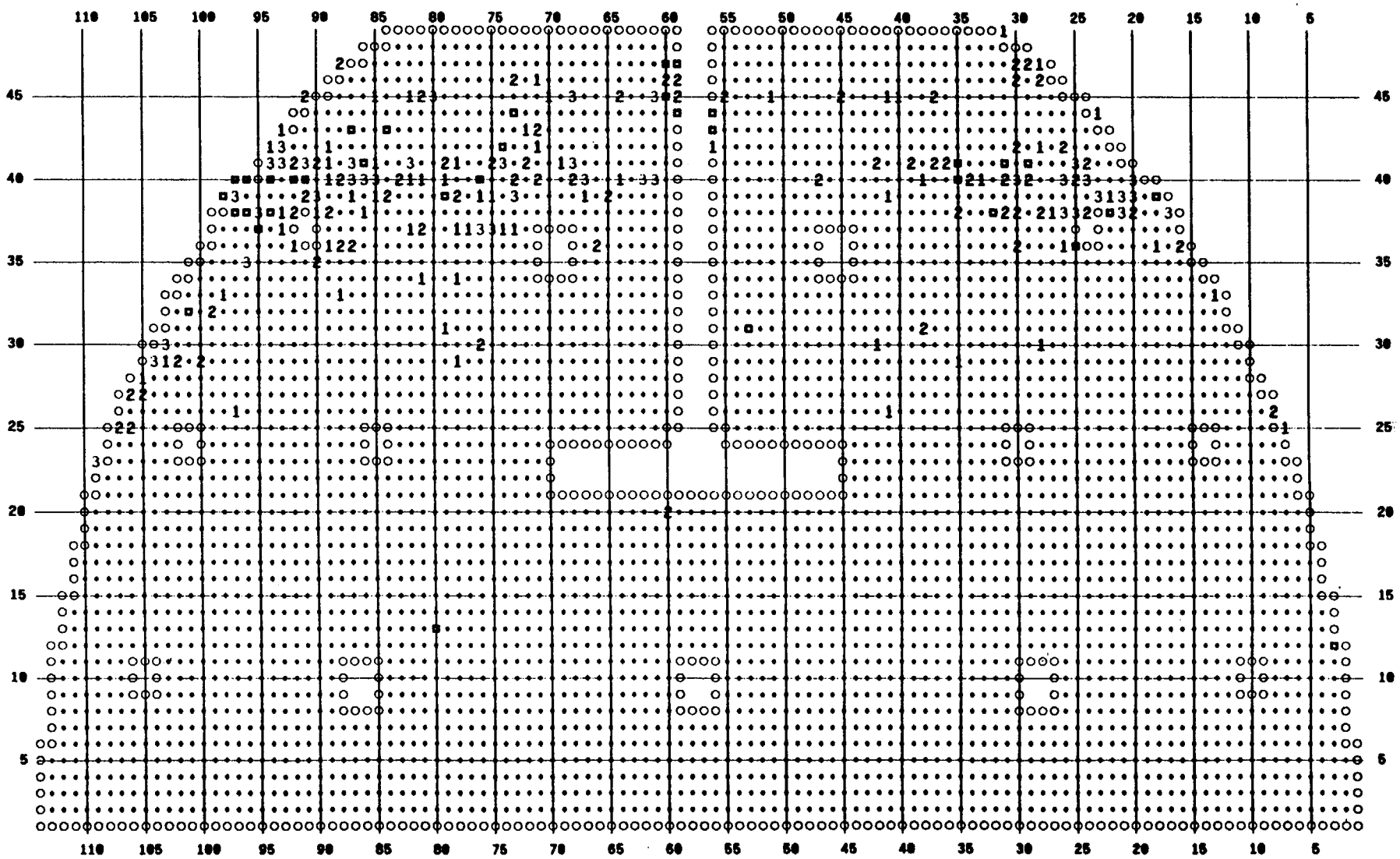
Braidwood A2R07 CDE D5

3 39 INDICATION 30% TO 39%

2 68 INDICATION 20% TO 29%

1 64 INDICATION 15% TO 19%

▫ 35 PLUGGED TUBE



Westinghouse Electric Co - NSD ST98 05/04/1999 15 32 52

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	COMMENTS
25	7	.84	0	PCT	16	P2	AV4	.00		TEM	TEC	.610	MBALL	20	
26	8	.77	0	PCT	15	P2	AV1	.00		TEM	TEC	.610	MBALL	20	
26	8	1.34	0	PCT	22	P2	AV4	.00		TEM	TEC	.610	MBALL	20	
33	13	.86	0	PCT	15	P2	AV3	.00		TEM	TEC	.610	MBALL	16	
36	16	1.64	0	PCT	24	P2	AV2	.00		TEM	TEC	.610	MBALL	16	
36	16	.85	0	PCT	15	P2	AV3	.00		TEM	TEC	.610	MBALL	16	
38	17	1.82	0	PCT	17	P2	AV1	.00		TEM	TEC	.610	MBALL	16	
38	17	2.77	0	PCT	31	P2	AV2	.00		TEM	TEC	.610	MBALL	16	
38	17	2.52	0	PCT	36	P2	AV3	.00		TEM	TEC	.610	MBALL	16	
38	17	3.46	0	PCT	35	P2	AV4	.00		TEM	TEC	.610	MBALL	16	
36	18	1.13	0	PCT	17	P2	AV2	.00		TEM	TEC	.610	MBALL	14	
36	18	1.27	0	PCT	18	P2	AV3	.00		TEM	TEC	.610	MBALL	14	
38	20	1.29	0	PCT	20	P2	AV1	.00		TEM	TEC	.610	MBALL	16	
38	20	2.26	0	PCT	28	P2	AV2	.00		TEM	TEC	.610	MBALL	16	
38	20	2.34	0	PCT	29	P2	AV3	.00		TEM	TEC	.610	MBALL	16	
38	20	1.99	0	PCT	27	P2	AV4	.00		TEM	TEC	.610	MBALL	16	
39	20	1.15	0	PCT	18	P2	AV1	.00		TEM	TEC	.610	MBALL	16	
39	20	1.09	0	PCT	18	P2	AV2	.00		TEM	TEC	.610	MBALL	16	
39	20	2.55	0	PCT	30	P2	AV3	.00		TEM	TEC	.610	MBALL	16	
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40	20	3.31	0	PCT	34	P2	AV2	.00		TEM	TEC	.610	MBALL	14	
40	20	1.80	0	PCT	24	P2	AV3	.00		TEM	TEC	.610	MBALL	14	
38	21	1.11	0	PCT	16	P2	AV1	.00		TEM	TEC	.610	MBALL	12	
38	21	3.29	0	PCT	34	P2	AV2	.00		TEM	TEC	.610	MBALL	12	
38	21	1.67	0	PCT	22	P2	AV3	.00		TEM	TEC	.610	MBALL	12	
39	21	.97	0	PCT	17	P2	AV1	.00		TEM	TEC	.610	MBALL	10	
39	21	2.57	0	PCT	31	P2	AV2	.00		TEM	TEC	.610	MBALL	10	
39	21	1.22	0	PCT	20	P2	AV3	.00		TEM	TEC	.610	MBALL	10	
39	21	.94	0	PCT	17	P2	AV4	.00		TEM	TEC	.610	MBALL	10	
39	22	1.23	0	PCT	18	P2	AV1	.00		TEM	TEC	.610	MBALL	12	
39	22	1.32	0	PCT	19	P2	AV2	.00		TEM	TEC	.610	MBALL	12	
39	23	3.78	0	PCT	36	P2	AV2	.00		TEM	TEC	.610	MBALL	6	
39	23	2.59	0	PCT	29	P2	AV3	.00		TEM	TEC	.610	MBALL	6	
44	23	1.09	0	PCT	16	P2	AV1	.00		TEM	TEC	.610	MBALL	2	
38	24	.98	0	PCT	15	P2	AV1	.00		TEM	TEC	.610	MBALL	2	
38	24	1.65	0	PCT	22	P2	AV2	.00		TEM	TEC	.610	MBALL	2	
38	24	1.96	0	PCT	25	P2	AV3	.00		TEM	TEC	.610	MBALL	2	
38	24	1.03	0	PCT	16	P2	AV4	.00		TEM	TEC	.610	MBALL	2	
40	24	2.87	0	PCT	32	P2	AV2	.00		TEM	TEC	.610	MBALL	4	
40	24	1.11	0	PCT	18	P2	AV4	.00		TEM	TEC	.610	MBALL	4	
41	24	1.51	0	PCT	21	P2	AV2	.00		TEM	TEC	.610	MBALL	2	
41	24	1.80	0	PCT	23	P2	AV3	.00		TEM	TEC	.610	MBALL	2	
38	25	1.20	0	PCT	21	P2	AV1	.00		TEM	TEC	.610	MBALL	4	
38	25	4.12	0	PCT	38	P2	AV2	.00		TEM	TEC	.610	MBALL	4	
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40	25	2.07	0	PCT	26	P2	AV3	.00		TEM	TEC	.610	MBALL	2	
40	25	.99	0	PCT	15	P2	AV4	.00		TEM	TEC	.610	MBALL	2	
41	25	1.49	0	PCT	21	P2	AV1	.00		TEM	TEC	.610	MBALL	2	
41	25	2.46	0	PCT	29	P2	AV2	.00		TEM	TEC	.610	MBALL	2	
41	25	3.84	0	PCT	36	P2	AV3	.00		TEM	TEC	.610	MBALL	2	
36	26	1.00	0	PCT	17	P2	AV2	.00		TEM	TEC	.610	MBALL	4	
38	26	1.43	0	PCT	20	P2	AV1	.00		TEM	TEC	.610	MBALL	2	
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40	26	.86	0	PCT	15	P2	AV1	.00		TEM	TEC	.610	MBALL	4	
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42	26	1.73	0	PCT	23	P2	AV3	.00		TEM	TEC	.610	MBALL	2	
38	27	1.29	0	PCT	18	P2	AV2	.00		TEM	TEC	.610	MBALL	2	
38	27	1.33	0	PCT	19	P2	AV3	.00		TEM	TEC	.610	MBALL	2	
38	28	1.03	0	PCT	16	P2	AV3	.00		TEM	TEC	.610	MBALL	2	
38	28	1.51	0	PCT	21	P2	AV3	.00		TEM	TEC	.610	MBALL	2	
42	28	1.01	0	PCT	15	P2	AV2	.00		TEM	TEC	.610	MBALL	2	
42	28	1.27	0	PCT	18	P2	AV3	.00		TEM	TEC	.610	MBALL	2	
46	28	2.43	0	PCT	28	P2	AV2	.00		TEM	TEC	.610	MBALL	2	
46	28	2.47	0	PCT	29	P2	AV3	.00		TEM	TEC	.610	MBALL	2	
46	28	1.88	0	PCT	23	P2	AV4	.00		TEM	TEC	.610	MBALL	2	
47	28	1.34	0	PCT	19	P2	AV1	.00		TEM	TEC	.610	MBALL	2	
40	29	1.86	0	PCT	24	P2	AV2	.00		TEM	TEC	.610	MBALL	2	
40	29	2.05	0	PCT	25	P2	AV3	.00		TEM	TEC	.610	MBALL	2	
40	29	.96	0	PCT	15	P2	AV4	.00		TEM	TEC	.610	MBALL	2	
47	29	2.17	0	PCT	26	P2	AV2	.00		TEM	TEC	.610	MBALL	2	
47	29	2.05	0	PCT	25	P2	AV3	.00		TEM	TEC	.610	MBALL	2	
36	30	1.94	0	PCT	25	P2	AV1	.00		TEM	TEC	.610	MBALL	2	
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	COMMENTS

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	COMMENTS
36	30	1.02	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	MBALL	2	
36	30	1.54	0	PCT	21	P2	AV3	.00		TEH	TEC	.610	MBALL	2	
38	30	1.11	0	PCT	16	P2	AV4	.00		TEH	TEC	.610	MBALL	2	
38	30	1.00	0	PCT	25	P2	AV2	.00		TEH	TEC	.610	MBALL	4	
38	30	2.05	0	PCT	27	P2	AV3	.00		TEH	TEC	.610	MBALL	4	
40	30	3.16	0	PCT	33	P2	AV2	.00		TEH	TEC	.610	MBALL	2	
40	30	3.38	0	PCT	34	P2	AV3	.00		TEH	TEC	.610	MBALL	2	
42	30	1.49	0	PCT	22	P2	AV3	.00		TEH	TEC	.610	MBALL	4	
46	30	2.11	0	PCT	27	P2	AV2	.00		TEH	TEC	.610	MBALL	4	
47	30	1.67	0	PCT	22	P2	AV2	.00		TEH	TEC	.610	MBALL	2	
47	30	1.11	0	PCT	16	P2	AV3	.00		TEH	TEC	.610	MBALL	2	
38	31	1.06	0	PCT	16	P2	AV1	.00		TEH	TEC	.610	MBALL	2	
38	31	1.44	0	PCT	20	P2	AV2	.00		TEH	TEC	.610	MBALL	2	
38	31	2.55	0	PCT	29	P2	AV3	.00		TEH	TEC	.610	MBALL	2	
38	31	1.21	0	PCT	17	P2	AV4	.00		TEH	TEC	.610	MBALL	2	
40	31	1.20	0	PCT	20	P2	AV1	.00		TEH	TEC	.610	MBALL	4	
40	31	1.43	0	PCT	21	P2	AV2	.00		TEH	TEC	.610	MBALL	4	
40	31	1.14	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	4	
40	31	1.30	0	PCT	20	P2	AV4	.00		TEH	TEC	.610	MBALL	4	
49	31	1.31	0	PCT	18	P2	AV1	.00		TEH	TEC	.610	MBALL	2	
40	33	1.01	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	MBALL	22	
40	34	1.08	0	PCT	20	P2	AV2	.00		TEH	TEC	.610	MBALL	28	
29	35	1.06	0	PCT	15	P2	AV4	.00		TEC	TEH	.610	MBALL	59	
38	35	1.77	0	PCT	23	P2	AV2	.00		TEH	TEC	.610	MBALL	30	
41	36	.91	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	MBALL	26	
41	36	2.10	0	PCT	27	P2	AV3	.00		TEH	TEC	.610	MBALL	26	
41	37	1.37	0	PCT	24	P2	AV2	.00		TEH	TEC	.610	MBALL	32	
45	37	2.04	0	PCT	26	P2	AV3	.00		TEH	TEC	.610	MBALL	30	
31	38	1.38	0	PCT	24	P2	AV3	.00		TEH	TEC	.610	MBALL	32	
40	38	.91	0	PCT	15	P2	AV1	.00		TEH	TEC	.610	MBALL	30	
40	38	1.11	0	PCT	17	P2	AV3	.00		TEH	TEC	.610	MBALL	30	
41	39	1.02	0	PCT	20	P2	AV4	.00		TEH	TEC	.610	MBALL	32	
45	40	.95	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	MBALL	30	
26	41	1.18	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	30	
39	41	.93	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	MBALL	30	
45	41	.78	0	PCT	17	P2	AV2	.00		TEH	TEC	.610	MBALL	32	
30	42	.68	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	MBALL	32	
41	42	1.68	0	PCT	23	P2	AV3	.00		TEH	TEC	.610	MBALL	30	
45	45	.65	0	PCT	15	P2	AV1	.00		TEH	TEC	.610	MBALL	36	
45	45	1.14	0	PCT	22	P2	AV2	.00		TEH	TEC	.610	MBALL	36	
40	47	1.64	0	PCT	24	P2	AV2	.00		TEH	TEC	.610	MBALL	36	
45	51	1.06	0	PCT	17	P2	AV3	.00		TEC	TEH	.610	MBALL	47	
45	55	1.27	0	PCT	20	P2	AV2	.00		TEC	TEH	.610	MBALL	47	
45	55	1.66	0	PCT	24	P2	AV3	.00		TEC	TEH	.610	MBALL	47	
42	56	1.10	0	PCT	16	P2	AV2	.00		TEC	TEH	.610	MBALL	47	
45	59	.92	0	PCT	15	P2	AV2	.00		TEC	TEH	.610	MBALL	47	
45	59	1.44	0	PCT	20	P2	AV3	.00		TEC	TEH	.610	MBALL	47	
46	59	2.27	0	PCT	29	P2	AV2	.00		TEC	TEH	.610	MBALL	47	
46	59	.99	0	PCT	15	P2	AV3	.00		TEC	TEH	.610	MBALL	47	
46	59	.49	0	PCT	15	P2	AV4	.00		TEC	TEH	.610	MBALL	47	
20	60	1.58	0	PCT	24	P2	AV1	.00		TEH	TEC	.610	MBALL	50	
20	60	.79	0	PCT	15	P2	AV4	.00		TEH	TEC	.610	MBALL	50	
46	60	1.28	0	PCT	19	P2	AV1	.00		TEC	TEH	.610	MBALL	49	
46	60	2.28	0	PCT	28	P2	AV2	.00		TEC	TEH	.610	MBALL	49	
40	61	2.62	0	PCT	31	P2	AV2	.00		TEC	TEH	.610	MBALL	47	
40	61	1.36	0	PCT	21	P2	AV3	.00		TEC	TEH	.610	MBALL	47	
45	61	3.11	0	PCT	33	P2	AV3	.00		TEC	TEH	.610	MBALL	47	
45	61	1.05	0	PCT	15	P2	AV4	.00		TEC	TEH	.610	MBALL	47	
40	62	3.97	0	PCT	37	P2	AV2	.00		TEC	TEH	.610	MBALL	49	
40	62	1.64	0	PCT	23	P2	AV3	.00		TEC	TEH	.610	MBALL	49	
40	64	1.00	0	PCT	16	P2	AV3	.00		TEC	TEH	.610	MBALL	49	
45	64	1.12	0	PCT	16	P2	AV1	.00		TEC	TEH	.610	MBARP	51	
45	64	2.13	0	PCT	26	P2	AV2	.00		TEC	TEH	.610	MBARP	51	
45	64	1.90	0	PCT	24	P2	AV3	.00		TEC	TEH	.610	MBARP	51	
39	65	1.04	0	PCT	15	P2	AV2	.00		TEC	TEH	.610	MBARP	51	
39	65	1.71	0	PCT	23	P2	AV3	.00		TEC	TEH	.610	MBARP	51	
36	66	1.62	0	PCT	28	P2	AV3	.00		TEH	TEC	.610	MBALL	40	

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL COMMENTS
39	67	.75	0	PCT	16	P2	AV1	.00		TEH	TEC	.610	MBALL	40
40	67	4.36	0	PCT	39	P2	AV2	.00		TEH	TEC	.610	MBALL	38
40	67	1.86	0	PCT	26	P2	AV3	.00		TEH	TEC	.610	MBALL	38
40	68	1.27	0	PCT	23	P2	AV2	.00		TEH	TEC	.610	MBALL	44
41	68	.86	0	PCT	17	P2	AV2	.00		TEH	TEC	.610	MBALL	40
41	68	1.91	0	PCT	30	P2	AV3	.00		TEH	TEC	.610	MBALL	40
45	68	.97	0	PCT	19	P2	AV1	.00		TEH	TEC	.610	MBALL	40
45	68	3.56	0	PCT	37	P2	AV2	.00		TEH	TEC	.610	MBALL	40
45	68	3.76	0	PCT	38	P2	AV3	.00		TEH	TEC	.610	MBALL	40
41	69	.94	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	40
45	70	.77	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	40
40	71	.84	0	PCT	18	P2	AV1	.00		TEH	TEC	.610	MBALL	44
40	71	1.18	0	PCT	22	P2	AV2	.00		TEH	TEC	.610	MBALL	44
42	71	.92	0	PCT	16	P2	AV3	.00		TEH	TEC	.610	MBALL	38
43	71	1.64	0	PCT	24	P2	AV1	.00		TEH	TEC	.610	MBALL	38
43	71	1.93	0	PCT	26	P2	AV2	.00		TEH	TEC	.610	MBALL	38
43	71	1.99	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	38
46	71	1.21	0	PCT	19	P2	AV2	.00		TEH	TEC	.610	MBALL	38
46	71	1.15	0	PCT	19	P2	AV4	.00		TEH	TEC	.610	MBALL	38
41	72	1.35	0	PCT	23	P2	AV3	.00		TEH	TEC	.610	MBALL	40
43	72	1.00	0	PCT	17	P2	AV1	.00		TEH	TEC	.610	MBALL	38
37	73	.80	0	PCT	17	P2	AV1	.00		TEH	TEC	.610	MBALL	44
37	73	.73	0	PCT	16	P2	AV3	.00		TEH	TEC	.610	MBALL	44
39	73	2.91	0	PCT	33	P2	AV2	.00		TEH	TEC	.610	MBALL	38
39	73	2.30	0	PCT	29	P2	AV3	.00		TEH	TEC	.610	MBALL	38
39	73	2.06	0	PCT	27	P2	AV4	.00		TEH	TEC	.610	MBALL	38
40	73	1.80	0	PCT	28	P2	AV2	.00		TEH	TEC	.610	MBALL	44
40	73	.67	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	MBALL	44
46	73	.85	0	PCT	15	P2	AV1	.00		TEH	TEC	.610	MBALL	38
46	73	1.33	0	PCT	21	P2	AV2	.00		TEH	TEC	.610	MBALL	38
37	74	.73	0	PCT	16	P2	AV2	.00		TEH	TEC	.610	MBALL	44
41	74	1.21	0	PCT	22	P2	AV1	.00		TEH	TEC	.610	MBALL	40
41	74	2.19	0	PCT	30	P2	AV2	.00		TEH	TEC	.610	MBALL	40
41	74	3.47	0	PCT	37	P2	AV3	.00		TEH	TEC	.610	MBALL	40
41	74	2.59	0	PCT	33	P2	AV4	.00		TEH	TEC	.610	MBALL	40
37	75	.68	0	PCT	15	P2	AV1	.00		TEH	TEC	.610	MBALL	44
37	75	2.35	0	PCT	31	P2	AV2	.00		TEH	TEC	.610	MBALL	44
37	75	1.11	0	PCT	21	P2	AV3	.00		TEH	TEC	.610	MBALL	44
39	75	.88	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	MBALL	38
41	75	1.49	0	PCT	25	P2	AV1	.00		TEH	TEC	.610	MBALL	40
41	75	1.82	0	PCT	28	P2	AV3	.00		TEH	TEC	.610	MBALL	40
30	76	.93	0	PCT	19	P2	AV2	.00		TEH	TEC	.610	MBALL	48
30	76	1.00	0	PCT	20	P2	AV3	.00		TEH	TEC	.610	MBALL	48
30	76	.73	0	PCT	16	P2	AV4	.00		TEH	TEC	.610	MBALL	48
37	76	1.12	0	PCT	21	P2	AV1	.00		TEH	TEC	.610	MBALL	44
37	76	2.48	0	PCT	32	P2	AV2	.00		TEH	TEC	.610	MBALL	44
37	76	1.16	0	PCT	22	P2	AV3	.00		TEH	TEC	.610	MBALL	44
37	76	.65	0	PCT	15	P2	AV4	.00		TEH	TEC	.610	MBALL	44
39	76	.84	0	PCT	15	P2	AV1	.00		TEH	TEC	.610	MBALL	38
39	76	.85	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	MBALL	38
37	77	.87	0	PCT	18	P2	AV2	.00		TEH	TEC	.610	MBALL	44
29	78	.96	0	PCT	19	P2	AV2	.00		TEH	TEC	.610	MBALL	48
34	78	1.13	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	MBALL	42
37	78	.76	0	PCT	16	P2	AV1	.00		TEH	TEC	.610	MBALL	44
39	78	1.82	0	PCT	25	P2	AV2	.00		TEH	TEC	.610	MBALL	38
39	78	1.38	0	PCT	21	P2	AV3	.00		TEH	TEC	.610	MBALL	38
41	78	.73	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	MBALL	40
31	79	1.02	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	MBALL	46
40	79	.78	0	PCT	17	P2	AV2	.00		TEH	TEC	.610	MBALL	44
40	79	.96	0	PCT	19	P2	AV3	.00		TEH	TEC	.610	MBALL	44
41	79	.86	0	PCT	18	P2	AV1	.00		TEH	TEC	.610	MBALL	44
41	79	.86	0	PCT	18	P2	AV2	.00		TEH	TEC	.610	MBALL	44
41	79	1.48	0	PCT	24	P2	AV3	.00		TEH	TEC	.610	MBALL	44
45	80	1.37	0	PCT	23	P2	AV2	.00		TEH	TEC	.610	MBALL	40
45	80	2.33	0	PCT	31	P2	AV3	.00		TEH	TEC	.610	MBALL	40
45	80	1.46	0	PCT	24	P2	AV4	.00		TEH	TEC	.610	MBALL	40
34	81	1.32	0	PCT	17	P2	AV2	.00		TEH	TEC	.610	MBALL	42
37	81	.93	0	PCT	19	P2	AV1	.00		TEH	TEC	.610	MBALL	44
37	81	1.75	0	PCT	27	P2	AV2	.00		TEH	TEC	.610	MBALL	44
37	81	1.51	0	PCT	25	P2	AV3	.00		TEH	TEC	.610	MBALL	44
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL COMMENTS

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	COMMENTS
40	81	.72	0	PCT	16	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
45	81	1.96	0	PCT	29	P2	AV2	.00		TEH	TEC	.610	MBALL	40	
37	82	.96	0	PCT	19	P2	AV1	.00		TEH	TEC	.610	MBALL	44	
37	82	.71	0	PCT	16	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
40	82	.53	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
40	82	.96	0	PCT	19	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
41	82	.77	0	PCT	16	P2	AV1	.00		TEH	TEC	.610	MBALL	44	
41	82	2.42	0	PCT	32	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
41	82	1.19	0	PCT	22	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
41	82	1.13	0	PCT	21	P2	AV4	.00		TEH	TEC	.610	MBALL	44	
45	82	.79	0	PCT	16	P2	AV2	.00		TEH	TEC	.610	MBALL	40	
40	83	1.37	0	PCT	24	P2	AV1	.00		TEH	TEC	.610	MBALL	44	
40	83	1.00	0	PCT	20	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
40	83	.99	0	PCT	20	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
40	83	.74	0	PCT	16	P2	AV4	.00		TEH	TEC	.610	MBALL	44	
39	84	1.35	0	PCT	21	P2	AV2	.00		TEH	TEC	.610	MBALL	42	
39	84	1.09	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	42	
39	85	.92	0	PCT	16	P2	AV2	.00		TEH	TEC	.610	MBALL	42	
40	85	.91	0	PCT	19	P2	AV1	.00		TEH	TEC	.610	MBALL	44	
40	85	1.99	0	PCT	29	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
40	85	3.78	0	PCT	38	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
41	85	.92	0	PCT	19	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
41	85	.80	0	PCT	17	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
45	85	.83	0	PCT	15	P2	AV1	.00		TEH	TEC	.610	MBALL	38	
45	85	1.03	0	PCT	17	P2	AV2	.00		TEH	TEC	.610	MBALL	38	
38	86	1.17	0	PCT	19	P2	AV2	.00		TEH	TEC	.610	MBALL	42	
40	86	2.28	0	PCT	31	P2	AV1	.00		TEH	TEC	.610	MBALL	44	
40	86	2.34	0	PCT	31	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
40	86	1.33	0	PCT	24	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
40	86	.86	0	PCT	18	P2	AV4	.00		TEH	TEC	.610	MBALL	44	
36	87	1.18	0	PCT	22	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
39	87	1.05	0	PCT	17	P2	AV2	.00		TSH	TEC	.610	MBALL	42	
40	87	.76	0	PCT	16	P2	AV1	.00		TEH	TEC	.610	MBALL	44	
40	87	2.37	0	PCT	32	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
40	87	.69	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
40	87	.76	0	PCT	16	P2	AV4	.00		TEH	TEC	.610	MBALL	44	
41	87	1.53	0	PCT	26	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
41	87	2.24	0	PCT	31	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
33	88	.87	0	PCT	18	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
36	88	.76	0	PCT	16	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
36	88	1.21	0	PCT	22	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
40	88	2.81	0	PCT	29	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
40	88	1.31	0	PCT	23	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
40	88	.99	0	PCT	20	P2	AV4	.00		TEH	TEC	.610	MBALL	44	
47	88	1.18	0	PCT	21	P2	AV2	.00		TEH	TEC	.610	MBALL	40	
47	88	.87	0	PCT	17	P2	AV4	.00		TEH	TEC	.610	MBALL	40	
36	89	.79	0	PCT	17	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
36	89	.80	0	PCT	17	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
38	89	1.40	0	PCT	21	P2	AV2	.00		TEH	TEC	.610	MBALL	42	
40	89	.85	0	PCT	18	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
40	89	.72	0	PCT	16	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
41	89	.90	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
42	89	.91	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	MBALL	38	
42	89	.87	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	MBALL	38	
35	90	1.99	0	PCT	26	P2	AV3	.00		TEH	TEC	.610	MBALL	42	
38	90	.94	0	PCT	16	P2	AV3	.00		TEH	TEC	.610	MBALL	42	
39	90	1.58	0	PCT	23	P2	AV2	.00		TEH	TEC	.610	MBALL	42	
39	90	2.52	0	PCT	30	P2	AV3	.00		TEH	TEC	.610	MBALL	42	
41	90	1.08	0	PCT	21	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
39	91	2.42	0	PCT	29	P2	AV2	.00		TEH	TEC	.610	MBALL	42	
41	91	.67	0	PCT	15	P2	AV1	.00		TEH	TEC	.610	MBALL	44	
41	91	2.62	0	PCT	33	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
41	91	.80	0	PCT	17	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
45	91	1.11	0	PCT	21	P2	AV1	.00		TEH	TEC	.610	MBALL	40	
36	92	.85	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
38	92	1.61	0	PCT	23	P2	AV2	.00		TEH	TEC	.610	MBALL	42	
38	92	1.38	0	PCT	20	P2	AV3	.00		TEH	TEC	.610	MBALL	42	
41	92	1.05	0	PCT	18	P2	AV2	.00		TEH	TEC	.610	MBALL	38	
41	92	2.33	0	PCT	29	P2	AV3	.00		TEH	TEC	.610	MBALL	38	

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	COMMENTS
37	93	.80	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
38	93	1.37	0	PCT	19	P2	AV3	.00		TEC	TEH	.610	MBALL	59	
41	93	1.11	0	PCT	18	P2	AV1	.00		TEH	TEC	.610	MBALL	38	
41	93	4.34	0	PCT	39	P2	AV2	.00		TEH	TEC	.610	MBALL	38	
41	93	3.76	0	PCT	37	P2	AV3	.00		TEH	TEC	.610	MBALL	38	
41	93	1.69	0	PCT	24	P2	AV4	.00		TEH	TEC	.610	MBALL	38	
42	93	1.04	0	PCT	20	P2	AV1	.00		TEH	TEC	.610	MBALL	44	
42	93	3.60	0	PCT	37	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
42	93	1.58	0	PCT	26	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
42	93	3.16	0	PCT	35	P2	AV4	.00		TEH	TEC	.610	MBALL	44	
43	93	.84	0	PCT	17	P2	AV4	.00		TEH	TEC	.610	MBALL	48	
41	94	.66	0	PCT	15	P2	AV1	.00		TEH	TEC	.610	MBALL	44	
41	94	3.25	0	PCT	36	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
41	94	1.24	0	PCT	23	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
41	94	1.26	0	PCT	23	P2	AV4	.00		TEH	TEC	.610	MBALL	44	
42	94	.67	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
42	94	.65	0	PCT	15	P2	AV4	.00		TEH	TEC	.610	MBALL	44	
38	95	4.47	0	PCT	39	P2	AV2	.00		TEH	TEC	.610	MBALL	42	
38	95	1.18	0	PCT	19	P2	AV3	.00		TEH	TEC	.610	MBALL	42	
38	95	.89	0	PCT	15	P2	AV4	.00		TEH	TEC	.610	MBALL	42	
35	96	2.10	0	PCT	30	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
26	97	.91	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	48	
39	97	4.02	0	PCT	38	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
39	97	1.48	0	PCT	25	P2	AV3	.00		TEH	TEC	.610	MBALL	44	
39	97	1.56	0	PCT	26	P2	AV4	.00		TEH	TEC	.610	MBALL	44	
33	98	.87	0	PCT	18	P2	AV2	.00		TEH	TEC	.610	MBALL	44	
32	99	1.86	0	PCT	24	P2	AV2	.00		TEH	TEC	.610	MBALL	46	
29	100	1.01	0	PCT	20	P2	AV2	.00		TEH	TEC	.610	MBALL	48	
29	100	.90	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	48	
29	102	1.27	0	PCT	23	P2	AV3	.00		TEH	TEC	.610	MBALL	48	
29	103	.88	0	PCT	18	P2	AV1	.00		TEH	TEC	.610	MBALL	48	
29	103	.74	0	PCT	16	P2	AV2	.00		TEH	TEC	.610	MBALL	48	
29	103	.77	0	PCT	16	P2	AV3	.00		TEH	TEC	.610	MBALL	48	
30	103	2.68	0	PCT	33	P2	AV1	.00		TEH	TEC	.610	MBALL	48	
30	103	1.77	0	PCT	27	P2	AV2	.00		TEH	TEC	.610	MBALL	48	
30	103	2.06	0	PCT	30	P2	AV3	.00		TEH	TEC	.610	MBALL	48	
29	104	.88	0	PCT	18	P2	AV1	.00		TEH	TEC	.610	MBALL	48	
29	104	2.26	0	PCT	31	P2	AV2	.00		TEH	TEC	.610	MBALL	48	
29	104	2.02	0	PCT	29	P2	AV3	.00		TEH	TEC	.610	MBALL	48	
27	105	1.78	0	PCT	23	P2	AV1	.00		TEH	TEC	.610	MBALL	46	
27	105	1.29	0	PCT	18	P2	AV2	.00		TEH	TEC	.610	MBALL	46	
27	105	1.10	0	PCT	16	P2	AV3	.00		TEH	TEC	.610	MBALL	46	
28	105	1.05	0	PCT	16	P2	AV3	.00		TEH	TEC	.610	MBALL	46	
25	106	1.44	0	PCT	24	P2	AV2	.00		TEH	TEC	.610	MBALL	48	
25	106	.94	0	PCT	19	P2	AV3	.00		TEH	TEC	.610	MBALL	48	
27	106	1.55	0	PCT	21	P2	AV1	.00		TEH	TEC	.610	MBALL	46	
27	106	1.18	0	PCT	17	P2	AV2	.00		TEH	TEC	.610	MBALL	46	
27	106	1.50	0	PCT	21	P2	AV3	.00		TEH	TEC	.610	MBALL	46	
27	106	1.07	0	PCT	16	P2	AV4	.00		TEH	TEC	.610	MBALL	46	
25	107	1.98	0	PCT	29	P2	AV1	.00		TEH	TEC	.610	MBALL	48	
23	109	.85	0	PCT	16	P2	AV1	.00		TEH	TEC	.610	MBALL	50	
23	109	2.38	0	PCT	30	P2	AV4	.00		TEH	TEC	.610	MBALL	50	

CDE-B AVB WEAR INDICATIONS

Braidwood A2R07 CDE D5

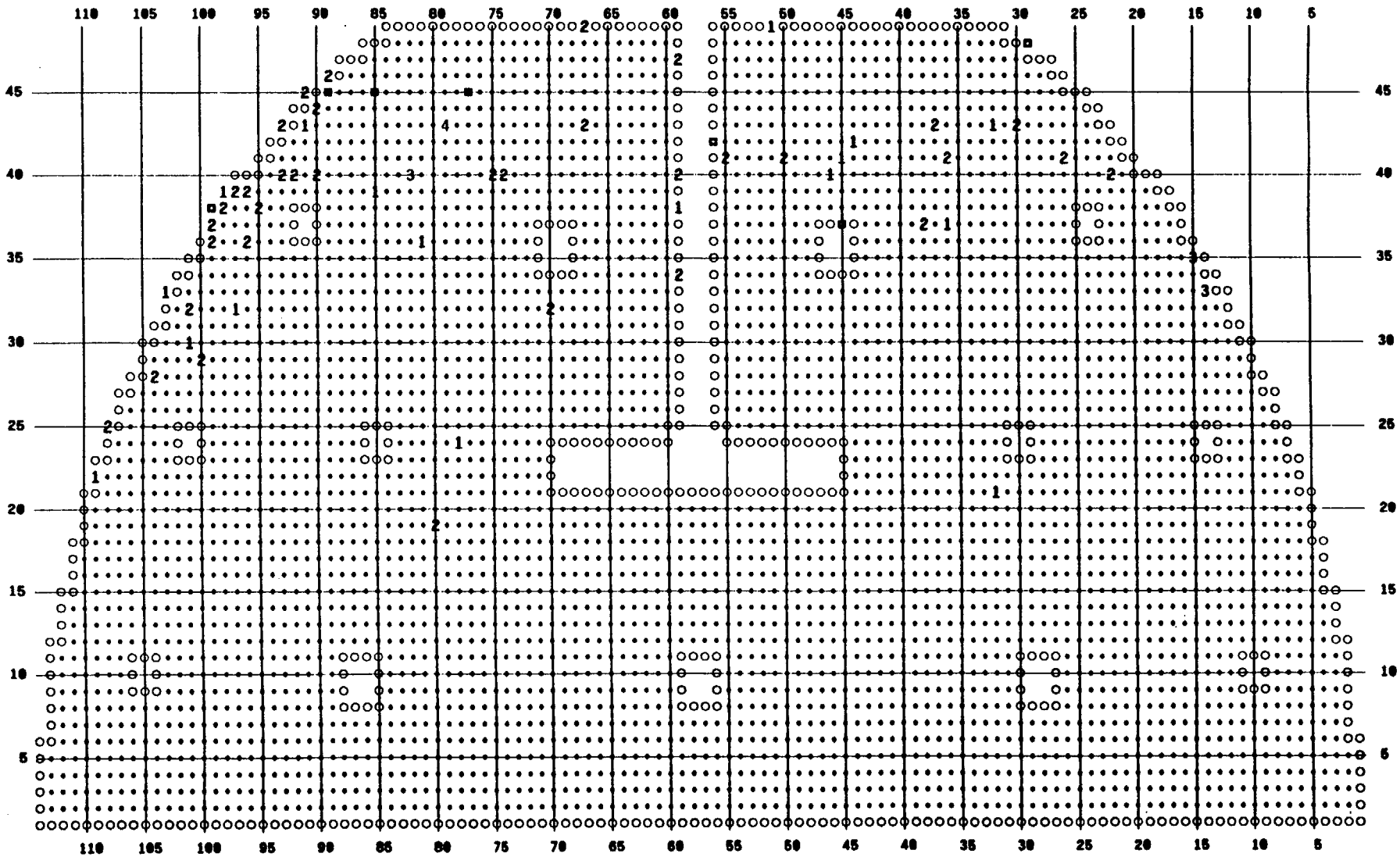
4 1 INDICATION 40% AND GREATER

3 3 INDICATION 30% TO 39%

2 35 INDICATION 20% TO 29%

1 17 INDICATION 15% TO 19%

▫ 7 PLUGGED TUBE



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ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	COMMENTS
33	14	2.67	0	PCT	31	P2	AV2	.00		TEM	TEC	.610	MBALL	6	
33	14	1.61	0	PCT	24	P2	AV3	.00		TEM	TEC	.610	MBALL	6	
35	15	2.15	0	PCT	27	P2	AV2	.00		TEM	TEC	.610	MBALL	8	
35	15	4.00	0	PCT	38	P2	AV3	.00		TEM	TEC	.610	MBALL	8	
35	15	2.10	0	PCT	27	P2	AV4	.00		TEM	TEC	.610	MBALL	8	
40	22	1.34	0	PCT	21	P2	AV2	.00		TEM	TEC	.610	MBALL	6	
40	22	1.00	0	PCT	17	P2	AV3	.00		TEM	TEC	.610	MBALL	6	
41	26	1.74	0	PCT	23	P2	AV2	.00		TEM	TEC	.610	MBALL	4	
43	30	1.64	0	PCT	22	P2	AV2	.00		TEM	TEC	.610	MBALL	4	
21	32	1.00	0	PCT	17	P2	AV1	.00		TEM	TEC	.610	MBARP	90	
43	32	.79	0	PCT	15	P2	AV1	.00		TEM	TEC	.610	MBALL	22	
37	36	.83	0	PCT	15	P2	AV1	.00		TEM	TEC	.610	MBALL	26	
37	36	.91	0	PCT	16	P2	AV2	.00		TEM	TEC	.610	MBALL	26	
37	36	.97	0	PCT	17	P2	AV3	.00		TEM	TEC	.610	MBALL	26	
37	36	.80	0	PCT	15	P2	AV4	.00		TEM	TEC	.610	MBALL	26	
41	36	1.48	0	PCT	23	P2	AV1	.00		TEM	TEC	.610	MBALL	26	
43	37	1.91	73	PCT	25	P2	AV2	.00		TEM	TEC	.610	MBALL	28	
43	37	2.25	117	PCT	27	P2	AV3	.00		TEM	TEC	.610	MBALL	28	
37	38	1.86	0	PCT	26	P2	AV2	.00		TEM	TEC	.610	MBALL	26	
37	38	2.25	0	PCT	29	P2	AV3	.00		TEM	TEC	.610	MBALL	26	
42	44	1.05	0	PCT	16	P2	AV1	.00		TEM	TEC	.610	MBALL	32	
42	44	1.06	0	PCT	16	P2	AV3	.00		TEM	TEC	.610	MBALL	32	
41	45	1.15	0	PCT	18	P2	AV2	.00		TEM	TEC	.610	MBALL	30	
40	46	1.18	0	PCT	18	P2	AV3	.00		TEM	TEC	.610	MBALL	30	
41	50	1.47	0	PCT	21	P2	AV3	.00		TEM	TEC	.610	MBALL	30	
49	51	.96	0	PCT	15	P2	AV4	.00		TEM	TEC	.610	MBALL	32	
41	55	1.92	0	PCT	26	P2	AV2	.00		TEM	TEC	.610	MBARP	96	
41	55	1.67	0	PCT	24	P2	AV3	.00		TEM	TEC	.610	MBARP	96	
41	55	.95	0	PCT	16	P2	AV4	.00		TEM	TEC	.610	MBARP	96	
34	59	1.52	118	PCT	20	P2	AV3	.00		TEM	TEC	.610	MBALL	36	
38	59	.89	0	PCT	15	P2	AV2	.00		TEM	TEC	.610	MBARP	96	
40	59	1.14	0	PCT	19	P2	AV1	.00		TEM	TEC	.610	MBARP	96	
40	59	1.34	0	PCT	21	P2	AV2	.00		TEM	TEC	.610	MBARP	96	
40	59	2.14	0	PCT	28	P2	AV3	.00		TEM	TEC	.610	MBARP	96	
40	59	.89	0	PCT	15	P2	AV4	.00		TEM	TEC	.610	MBARP	96	
47	59	1.24	0	PCT	20	P2	AV1	.00		TEM	TEC	.610	MBARP	96	
43	67	3.00	0	PCT	33	P2	AV2	.00		TEM	TEC	.610	MBALL	34	
43	67	2.09	0	PCT	27	P2	AV3	.00		TEM	TEC	.610	MBALL	34	
43	67	.97	0	PCT	16	P2	AV4	.00		TEM	TEC	.610	MBALL	34	
49	67	1.58	0	PCT	23	P2	AV4	.00		TEM	TEC	.610	MBALL	34	
32	70	.90	0	PCT	15	P2	AV1	.00		TEM	TEC	.610	MBALL	34	
32	70	.85	0	PCT	15	P2	AV2	.00		TEM	TEC	.610	MBALL	34	
32	70	2.27	0	PCT	29	P2	AV3	.00		TEM	TEC	.610	MBALL	34	
40	74	1.44	0	PCT	20	P2	AV2	.00		TEM	TEC	.610	MBALL	42	
40	74	1.90	0	PCT	24	P2	AV3	.00		TEM	TEC	.610	MBALL	42	
40	75	1.55	0	PCT	22	P2	AV2	.00		TEM	TEC	.610	MBALL	46	
24	78	1.11	0	PCT	17	P2	AV4	.00		TEM	TEC	.610	MBALL	46	
43	79	5.20	0	PCT	41	P2	AV2	.00		TEM	TEC	.610	MBALL	46	
43	79	3.56	0	PCT	35	P2	AV3	.00		TEM	TEC	.610	MBALL	46	
43	79	1.99	0	PCT	26	P2	AV4	.00		TEM	TEC	.610	MBALL	46	
19	80	1.43	0	PCT	20	P2	AV2	.00		TEM	TEC	.610	MBALL	48	
36	81	1.06	0	PCT	16	P2	AV2	.00		TEM	TEC	.610	MBALL	48	
40	82	2.70	0	PCT	30	P2	AV3	.00		TEM	TEC	.610	MBALL	50	
39	85	.92	0	PCT	15	P2	AV2	.00		TEM	TEC	.610	MBALL	50	
39	85	1.13	0	PCT	17	P2	AV3	.00		TEM	TEC	.610	MBALL	50	
46	89	2.29	0	PCT	28	P2	AV4	.00		TEM	TEC	.610	MBALL	56	
40	90	1.70	0	PCT	23	P2	AV3	.00		TEM	TEC	.610	MBALL	54	
44	90	2.06	0	PCT	26	P2	AV2	.00		TEM	TEC	.610	MBALL	56	
44	90	1.81	0	PCT	24	P2	AV3	.00		TEM	TEC	.610	MBALL	56	
44	90	1.02	0	PCT	16	P2	AV4	.00		TEM	TEC	.610	MBALL	56	
43	91	1.24	0	PCT	18	P2	AV3	.00		TEM	TEC	.610	MBALL	56	
45	91	2.51	0	PCT	30	P2	AV2	.00		TEM	TEC	.610	MBALL	54	
45	91	1.33	0	PCT	20	P2	AV3	.00		TEM	TEC	.610	MBALL	54	
40	92	1.33	0	PCT	20	P2	AV3	.00		TEM	TEC	.610	MBALL	54	
40	93	1.46	0	PCT	22	P2	AV3	.00		TEM	TEC	.610	MBALL	54	
43	93	2.27	0	PCT	27	P2	AV3	.00		TEM	TEC	.610	MBALL	56	
38	95	1.68	0	PCT	23	P2	AV2	.00		TEM	TEC	.610	MBALL	56	
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	COMMENTS

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	SEGT	ENDT	PDIA	PTYPE	CAL	COMMENTS
36	96	1.27	0	PCT	21	P2	AV2	.00		TEH	TEC	.610	NBALL	58	
39	96	.99	0	PCT	18	P2	AV1	.00		TEH	TEC	.610	NBALL	58	
39	96	1.05	0	PCT	28	P2	AV3	.00		TEH	TEC	.610	NBALL	58	
32	97	.96	0	PCT	17	P2	AV2	.00		TEH	TEC	.610	NBALL	58	
39	97	1.01	0	PCT	17	P2	AV1	.00		TEH	TEC	.610	NBALL	58	
39	97	1.00	0	PCT	25	P2	AV3	.00		TEH	TEC	.610	NBALL	58	
38	97	.90	0	PCT	15	P2	AV4	.00		TEH	TEC	.610	NBALL	58	
38	98	1.18	0	PCT	20	P2	AV3	.00		TEH	TEC	.610	NBALL	58	
38	98	1.07	0	PCT	18	P2	AV4	.00		TEH	TEC	.610	NBALL	58	
39	98	1.04	0	PCT	17	P2	AV4	.00		TEH	TEC	.610	NBALL	58	
36	99	2.07	0	PCT	27	P2	AV2	.00		TEH	TEC	.610	NBALL	60	
37	99	1.40	0	PCT	22	P2	AV3	.00		TEH	TEC	.610	NBALL	58	
29	100	1.35	0	PCT	21	P2	AV2	.00		TEH	TEC	.610	NBALL	58	
29	100	.84	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	NBALL	58	
30	101	.97	0	PCT	16	P2	AV2	.00		TEH	TEC	.610	NBALL	58	
32	101	1.99	0	PCT	25	P2	AV3	.00		TEH	TEC	.610	NBALL	60	
33	103	.95	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	NBALL	64	
33	103	.92	0	PCT	15	P2	AV4	.00		TEH	TEC	.610	NBALL	64	
33	103	1.22	0	PCT	19	P2	AV2	.00		TEH	TEC	.610	NBARP	94	
33	103	1.23	0	PCT	20	P2	AV4	.00		TEH	TEC	.610	NBARP	94	
28	104	1.39	0	PCT	21	P2	AV2	.00		TEH	TEC	.610	NBALL	62	
25	106	1.05	0	PCT	24	P2	AV1	.00		TEH	TEC	.610	NBALL	62	
25	106	1.33	0	PCT	21	P2	AV4	.00		TEH	TEC	.610	NBALL	62	
22	109	1.08	0	PCT	17	P2	AV4	.00		TEH	TEC	.610	NBALL	62	
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	SEGT	ENDT	PDIA	PTYPE	CAL	COMMENTS

Tubes: 56 Records: 91

CDE-C AVB WEAR INDICATIONS

Braidwood A2R07 CDE D5

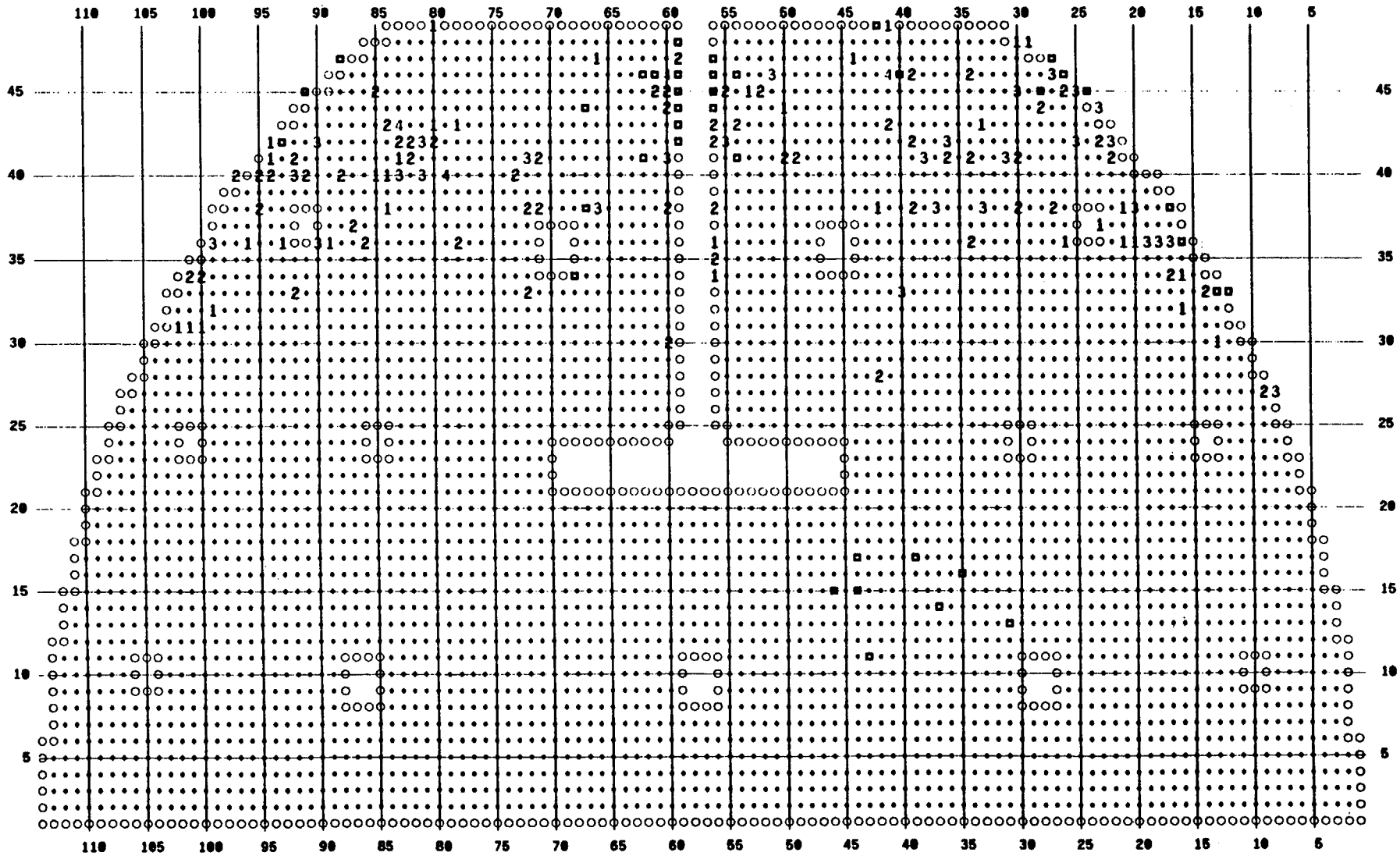
4 4 INDICATION 40% AND GREATER

3 29 INDICATION 30% TO 39%

2 58 INDICATION 20% TO 29%

1 35 INDICATION 15% TO 19%

▫ 39 PLUGGED TUBE



Westinghouse Electric Co - NSD ST98 05/05/1999 13 55 18

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL COMMENTS
27	8	.90	0	PCT	17	P2	AV2	.00		TEH	TEC	.610	MBALL	6
27	8	2.70	0	PCT	31	P2	AV3	.00		TEH	TEC	.610	MBALL	6
27	8	4.67	0	PCT	39	P2	AV4	.00		TEH	TEC	.610	MBALL	6
27	9	1.43	0	PCT	23	P2	AV1	.00		TEH	TEC	.610	MBALL	10
27	9	.79	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	MBALL	10
27	9	1.49	0	PCT	23	P2	AV4	.00		TEH	TEC	.610	MBALL	10
30	13	.95	0	PCT	16	P2	AV1	.00		TEH	TEC	.610	MBALL	10
33	14	.97	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	MBALL	12
33	14	1.27	0	PCT	22	P2	AV3	.00		TEH	TEC	.610	MBALL	12
33	14	1.83	0	PCT	24	P2	AV4	.00		TEH	TEC	.610	MBALL	12
32	16	.90	0	PCT	16	P2	AV1	.00		TEH	TEC	.610	MBALL	10
32	16	1.03	0	PCT	18	P2	AV2	.00		TEH	TEC	.610	MBALL	10
34	16	1.05	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	10
34	17	1.10	0	PCT	19	P2	AV1	.00		TEH	TEC	.610	MBALL	10
34	17	1.43	0	PCT	22	P2	AV3	.00		TEH	TEC	.610	MBALL	10
36	17	2.66	0	PCT	31	P2	AV2	.00		TEH	TEC	.610	MBALL	10
36	17	1.48	0	PCT	23	P2	AV3	.00		TEH	TEC	.610	MBALL	10
36	18	.65	0	PCT	17	P2	AV1	.00		TEH	TEC	.610	MBALL	12
36	18	2.27	0	PCT	30	P2	AV2	.00		TEH	TEC	.610	MBALL	12
36	18	2.71	0	PCT	34	P2	AV3	.00		TEH	TEC	.610	MBALL	12
36	19	2.19	0	PCT	32	P2	AV2	.00		TEH	TEC	.610	MBALL	12
36	19	2.75	0	PCT	34	P2	AV3	.00		TEH	TEC	.610	MBALL	12
36	20	.88	0	PCT	15	P2	AV1	.00		TEH	TEC	.610	MBALL	10
36	20	.80	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	MBALL	10
36	20	.97	0	PCT	17	P2	AV3	.00		TEH	TEC	.610	MBALL	10
36	20	.89	0	PCT	16	P2	AV4	.00		TEH	TEC	.610	MBALL	10
38	20	2.67	0	PCT	31	P2	AV2	.00		TEH	TEC	.610	MBALL	10
38	20	2.86	0	PCT	32	P2	AV3	.00		TEH	TEC	.610	MBALL	10
36	21	1.01	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	10
38	21	1.06	0	PCT	18	P2	AV2	.00		TEH	TEC	.610	MBALL	10
38	21	1.06	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	10
41	22	2.06	0	PCT	26	P2	AV3	.00		TEH	TEC	.610	MBALL	12
41	22	1.53	0	PCT	21	P2	AV4	.00		TEH	TEC	.610	MBALL	12
42	22	2.69	0	PCT	30	P2	AV3	.00		TEH	TEC	.610	MBALL	12
42	22	2.14	0	PCT	27	P2	AV4	.00		TEH	TEC	.610	MBALL	12
37	23	1.02	0	PCT	16	P2	AV2	.00		TEH	TEC	.610	MBALL	12
42	23	1.11	0	PCT	21	P2	AV3	.00		TEH	TEC	.610	MBALL	12
44	23	1.99	0	PCT	30	P2	AV2	.00		TEH	TEC	.610	MBALL	12
44	23	4.00	0	PCT	38	P2	AV3	.00		TEH	TEC	.610	MBALL	12
42	25	2.85	0	PCT	32	P2	AV2	.00		TEH	TEC	.610	MBALL	10
42	25	2.13	0	PCT	28	P2	AV3	.00		TEH	TEC	.610	MBALL	10
42	25	1.33	0	PCT	22	P2	AV4	.00		TEH	TEC	.610	MBALL	10
45	25	2.23	0	PCT	29	P2	AV2	.00		TEH	TEC	.610	MBALL	10
45	25	3.18	0	PCT	34	P2	AV3	.00		TEH	TEC	.610	MBALL	10
45	25	1.41	0	PCT	22	P2	AV4	.00		TEH	TEC	.610	MBALL	10
36	26	.65	0	PCT	16	P2	AV3	.00		TEH	TEC	.610	MBALL	8
45	26	.97	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	MBALL	8
45	26	2.50	0	PCT	29	P2	AV3	.00		TEH	TEC	.610	MBALL	8
45	26	.92	0	PCT	15	P2	AV4	.00		TEH	TEC	.610	MBALL	8
38	27	1.94	0	PCT	25	P2	AV2	.00		TEH	TEC	.610	MBALL	8
38	27	1.03	0	PCT	16	P2	AV3	.00		TEH	TEC	.610	MBALL	8
46	27	3.46	0	PCT	34	P2	AV3	.00		TEH	TEC	.610	MBALL	8
44	28	1.17	0	PCT	19	P2	AV2	.00		TEH	TEC	.610	MBALL	6
44	28	1.29	0	PCT	21	P2	AV3	.00		TEH	TEC	.610	MBALL	6
44	28	.87	0	PCT	15	P2	AV4	.00		TEH	TEC	.610	MBALL	6
48	29	.98	0	PCT	17	P2	AV4	.00		TEH	TEC	.610	MBALL	6
38	30	1.00	0	PCT	16	P2	AV1	.00		TEH	TEC	.610	MBALL	8
38	30	1.54	0	PCT	22	P2	AV2	.00		TEH	TEC	.610	MBALL	8
38	30	1.66	0	PCT	23	P2	AV3	.00		TEH	TEC	.610	MBALL	8
41	30	1.95	0	PCT	25	P2	AV2	.00		TEH	TEC	.610	MBALL	8
41	30	1.58	0	PCT	22	P2	AV3	.00		TEH	TEC	.610	MBALL	8
45	30	2.19	0	PCT	27	P2	AV2	.00		TEH	TEC	.610	MBALL	8
45	30	3.37	0	PCT	34	P2	AV3	.00		TEH	TEC	.610	MBALL	8
45	30	1.39	0	PCT	20	P2	AV4	.00		TEH	TEC	.610	MBALL	8
48	30	.64	0	PCT	16	P2	AV4	.00		TEH	TEC	.610	MBALL	8
41	31	2.46	0	PCT	30	P2	AV1	.00		TEH	TEC	.610	MBALL	4
41	31	2.48	0	PCT	30	P2	AV2	.00		TEH	TEC	.610	MBALL	4
41	31	2.25	0	PCT	28	P2	AV3	.00		TEH	TEC	.610	MBALL	4
38	33	.94	0	PCT	20	P2	AV1	.00		TEH	TEC	.610	MBALL	2
38	33	2.19	0	PCT	31	P2	AV2	.00		TEH	TEC	.610	MBALL	2
38	33	2.60	0	PCT	33	P2	AV3	.00		TEH	TEC	.610	MBALL	2
38	33	1.00	0	PCT	21	P2	AV4	.00		TEH	TEC	.610	MBALL	2
43	33	.97	0	PCT	17	P2	AV2	.00		TEH	TEC	.610	MBALL	2

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL COMMENTS
36	34	1.57	0	PCT	27	P2	AV3	.00		TEM	TEC	.610	MBALL	16
41	34	1.06	0	PCT	22	P2	AV2	.00		TEM	TEC	.610	MBALL	16
41	34	1.46	0	PCT	26	P2	AV3	.00		TEM	TEC	.610	MBALL	16
46	34	1.08	0	PCT	28	P2	AV2	.00		TEM	TEC	.610	MBALL	16
46	34	1.44	0	PCT	26	P2	AV3	.00		TEM	TEC	.610	MBALL	16
46	34	.96	0	PCT	21	P2	AV4	.00		TEM	TEC	.610	MBALL	16
41	36	1.30	0	PCT	20	P2	AV2	.00		TEM	TEC	.610	MBALL	14
41	36	1.57	0	PCT	23	P2	AV3	.00		TEM	TEC	.610	MBALL	14
41	36	1.00	0	PCT	17	P2	AV4	.00		TEM	TEC	.610	MBALL	14
42	36	.86	0	PCT	15	P2	AV2	.00		TEM	TEC	.610	MBALL	14
42	36	2.71	0	PCT	31	P2	AV3	.00		TEM	TEC	.610	MBALL	14
42	36	1.53	0	PCT	23	P2	AV4	.00		TEM	TEC	.610	MBALL	14
38	37	.91	0	PCT	16	P2	AV1	.00		TEM	TEC	.610	MBALL	18
38	37	1.83	0	PCT	25	P2	AV2	.00		TEM	TEC	.610	MBALL	18
38	37	2.70	0	PCT	31	P2	AV3	.00		TEM	TEC	.610	MBALL	18
38	37	1.31	0	PCT	20	P2	AV4	.00		TEM	TEC	.610	MBALL	18
41	38	3.38	0	PCT	35	P2	AV2	.00		TEM	TEC	.610	MBALL	20
41	38	1.32	0	PCT	22	P2	AV3	.00		TEM	TEC	.610	MBALL	20
38	39	.86	0	PCT	15	P2	AV2	.00		TEM	TEC	.610	MBALL	20
38	39	1.42	0	PCT	21	P2	AV3	.00		TEM	TEC	.610	MBALL	20
42	39	1.39	0	PCT	21	P2	AV2	.00		TEM	TEC	.610	MBALL	20
42	39	1.62	0	PCT	23	P2	AV3	.00		TEM	TEC	.610	MBALL	20
46	39	1.10	0	PCT	18	P2	AV2	.00		TEM	TEC	.610	MBALL	20
46	39	2.37	0	PCT	29	P2	AV3	.00		TEM	TEC	.610	MBALL	20
33	40	3.03	0	PCT	33	P2	AV1	.00		TEM	TEC	.610	MBALL	18
43	41	2.23	0	PCT	28	P2	AV2	.00		TEM	TEC	.610	MBALL	18
43	41	1.83	0	PCT	25	P2	AV3	.00		TEM	TEC	.610	MBALL	18
46	41	3.43	0	PCT	35	P2	AV1	.00		TEM	TEC	.610	MBALL	18
46	41	4.49	0	PCT	39	P2	AV2	.00		TEM	TEC	.610	MBALL	18
46	41	6.91	0	PCT	44	P2	AV3	.00		TEM	TEC	.610	MBALL	18
46	41	2.69	0	PCT	31	P2	AV4	.00		TEM	TEC	.610	MBALL	18
49	41	.94	0	PCT	15	P2	AV1	.00		TEM	TEC	.610	MBALL	18
28	42	1.13	0	PCT	20	P2	AV3	.00		TEM	TEC	.610	MBALL	20
38	42	.86	0	PCT	16	P2	AV1	.00		TEM	TEC	.610	MBALL	20
47	44	1.06	0	PCT	18	P2	AV1	.00		TEM	TEC	.610	MBALL	18
41	49	1.41	0	PCT	20	P2	AV1	.00		TEM	TEC	.610	MBALL	22
41	50	1.14	0	PCT	18	P2	AV1	.00		TEM	TEC	.610	MBALL	24
41	50	1.52	0	PCT	21	P2	AV2	.00		TEM	TEC	.610	MBALL	24
41	50	2.63	0	PCT	29	P2	AV3	.00		TEM	TEC	.610	MBALL	24
44	50	1.10	0	PCT	16	P2	AV1	.00		TEM	TEC	.610	MBALL	24
44	50	1.24	0	PCT	18	P2	AV2	.00		TEM	TEC	.610	MBALL	24
46	51	3.71	0	PCT	36	P2	AV3	.00		TEM	TEC	.610	MBALL	26
46	51	3.62	0	PCT	36	P2	AV4	.00		TEM	TEC	.610	MBALL	26
45	52	1.41	0	PCT	22	P2	AV1	.00		TEM	TEC	.610	MBALL	22
45	52	1.51	0	PCT	23	P2	AV3	.00		TEM	TEC	.610	MBALL	22
45	53	.96	0	PCT	15	P2	AV1	.00		TEM	TEC	.610	MBALL	28
43	54	1.72	0	PCT	26	P2	AV3	.00		TEM	TEC	.610	MBALL	26
42	55	1.59	0	PCT	25	P2	AV2	.00		TEM	TEC	.610	MBALL	26
42	55	3.57	0	PCT	36	P2	AV3	.00		TEM	TEC	.610	MBALL	26
42	55	1.54	0	PCT	24	P2	AV4	.00		TEM	TEC	.610	MBALL	26
45	55	1.18	0	PCT	19	P2	AV1	.00		TEM	TEC	.610	MBALL	28
45	55	1.26	0	PCT	19	P2	AV2	.00		TEM	TEC	.610	MBALL	28
45	55	1.45	0	PCT	21	P2	AV3	.00		TEM	TEC	.610	MBALL	28
34	56	1.08	0	PCT	17	P2	AV1	.00		TEM	TEC	.610	MBALL	28
35	56	1.46	0	PCT	21	P2	AV2	.00		TEM	TEC	.610	MBALL	28
36	56	1.16	0	PCT	18	P2	AV2	.00		TEM	TEC	.610	MBALL	28
38	56	1.77	0	PCT	24	P2	AV3	.00		TEM	TEC	.610	MBALL	28
42	56	2.02	0	PCT	26	P2	AV1	.00		TEM	TEC	.610	MBALL	28
43	56	1.87	0	PCT	25	P2	AV1	.00		TEM	TEC	.610	MBALL	28
43	56	2.24	0	PCT	28	P2	AV4	.00		TEM	TEC	.610	MBALL	28
47	59	1.45	0	PCT	22	P2	AV2	.00		TEM	TEC	.610	MBALL	26
30	60	2.31	0	PCT	28	P2	AV1	.00		TEM	TEC	.610	MBALL	30
30	60	1.74	0	PCT	24	P2	AV2	.00		TEM	TEC	.610	MBALL	30
30	60	1.52	0	PCT	22	P2	AV3	.00		TEM	TEC	.610	MBALL	30
38	60	1.43	0	PCT	21	P2	AV1	.00		TEM	TEC	.610	MBALL	30
38	60	2.20	0	PCT	28	P2	AV2	.00		TEM	TEC	.610	MBALL	30
38	60	1.86	0	PCT	25	P2	AV3	.00		TEM	TEC	.610	MBALL	30
38	60	1.06	0	PCT	17	P2	AV4	.00		TEM	TEC	.610	MBALL	30
41	60	1.75	0	PCT	26	P2	AV2	.00		TEM	TEC	.610	MBALL	26
41	60	4.25	0	PCT	38	P2	AV3	.00		TEM	TEC	.610	MBALL	26
44	60	1.20	0	PCT	21	P2	AV2	.00		TEM	TEC	.610	MBALL	26
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL COMMENTS

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL COMMENTS
44	60	1.12	0	PCT	20	P2	AV3	.00		TEH	TEC	.610	MBALL	26|
45	60	1.49	0	PCT	24	P2	AV2	.00		TEH	TEC	.610	MBALL	26|
45	60	1.61	0	PCT	25	P2	AV3	.00		TEH	TEC	.610	MBALL	26|
46	60	2.63	0	PCT	32	P2	AV2	.00		TEH	TEC	.610	MBALL	26|
46	60	7.03	0	PCT	44	P2	AV3	.00		TEH	TEC	.610	MBALL	26|
46	60	2.59	0	PCT	32	P2	AV4	.00		TEH	TEC	.610	MBALL	26|
45	61	1.01	0	PCT	17	P2	AV2	.00		TEH	TEC	.610	MBALL	28|
45	61	1.71	0	PCT	24	P2	AV3	.00		TEH	TEC	.610	MBALL	28|
45	61	.94	0	PCT	16	P2	AV4	.00		TEH	TEC	.610	MBALL	28|
38	66	2.02	0	PCT	30	P2	AV2	.00		TEH	TEC	.610	MBALL	32|
38	66	1.20	0	PCT	19	P2	AV3	.00		TEH	TEC	.610	MBALL	32|
47	66	1.04	0	PCT	18	P2	AV1	.00		TEH	TEC	.610	MBALL	32|
38	71	1.04	0	PCT	19	P2	AV2	.00		TEH	TEC	.610	MBALL	34|
38	71	2.14	0	PCT	29	P2	AV3	.00		TEH	TEC	.610	MBALL	34|
41	71	1.76	0	PCT	26	P2	AV2	.00		TEH	TEC	.610	MBALL	34|
33	72	1.43	0	PCT	23	P2	AV3	.00		TEH	TEC	.610	MBALL	34|
38	72	1.21	0	PCT	21	P2	AV3	.00		TEH	TEC	.610	MBALL	34|
41	72	2.47	0	PCT	31	P2	AV2	.00		TEH	TEC	.610	MBALL	34|
41	72	4.18	0	PCT	38	P2	AV3	.00		TEH	TEC	.610	MBALL	34|
41	72	.82	0	PCT	16	P2	AV4	.00		TEH	TEC	.610	MBALL	34|
40	73	1.47	0	PCT	20	P2	AV3	.00		TEC	TEH	.610	MBALL	40|
36	78	1.33	0	PCT	21	P2	AV2	.00		TEH	TEC	.610	MBALL	40|
43	78	.93	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	MBALL	40|
40	79	2.00	0	PCT	28	P2	AV1	.00		TEH	TEC	.610	MBALL	38|
40	79	3.76	0	PCT	37	P2	AV2	.00		TEH	TEC	.610	MBALL	38|
40	79	6.99	0	PCT	44	P2	AV3	.00		TEH	TEC	.610	MBALL	38|
40	79	1.45	0	PCT	23	P2	AV4	.00		TEH	TEC	.610	MBALL	38|
42	80	1.70	0	PCT	25	P2	AV3	.00		TEH	TEC	.610	MBALL	38|
43	80	.90	0	PCT	17	P2	AV2	.00		TEH	TEC	.610	MBALL	38|
49	80	1.07	0	PCT	19	P2	AV4	.00		TEH	TEC	.610	MBALL	38|
40	81	1.01	0	PCT	17	P2	AV1	.00		TEH	TEC	.610	MBALL	40|
40	81	2.99	0	PCT	32	P2	AV2	.00		TEH	TEC	.610	MBALL	40|
40	81	.86	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	MBALL	40|
42	81	1.15	0	PCT	19	P2	AV1	.00		TEH	TEC	.610	MBALL	40|
42	81	2.90	0	PCT	32	P2	AV2	.00		TEH	TEC	.610	MBALL	40|
42	81	2.20	0	PCT	28	P2	AV3	.00		TEH	TEC	.610	MBALL	40|
42	81	1.04	0	PCT	17	P2	AV4	.00		TEH	TEC	.610	MBALL	40|
41	82	1.27	0	PCT	20	P2	AV2	.00		TEH	TEC	.610	MBALL	40|
42	82	2.07	0	PCT	27	P2	AV2	.00		TEH	TEC	.610	MBALL	40|
42	82	1.18	0	PCT	19	P2	AV3	.00		TEH	TEC	.610	MBALL	40|
40	83	1.13	0	PCT	20	P2	AV1	.00		TEH	TEC	.610	MBALL	38|
40	83	3.49	0	PCT	36	P2	AV2	.00		TEH	TEC	.610	MBALL	38|
40	83	3.31	0	PCT	35	P2	AV3	.00		TEH	TEC	.610	MBALL	38|
41	83	1.05	0	PCT	19	P2	AV1	.00		TEH	TEC	.610	MBALL	38|
41	83	1.02	0	PCT	18	P2	AV2	.00		TEH	TEC	.610	MBALL	38|
42	83	1.39	0	PCT	23	P2	AV3	.00		TEH	TEC	.610	MBALL	38|
43	83	1.07	0	PCT	19	P2	AV1	.00		TEH	TEC	.610	MBALL	38|
43	83	7.05	0	PCT	44	P2	AV2	.00		TEH	TEC	.610	MBALL	38|
43	83	2.21	0	PCT	29	P2	AV3	.00		TEH	TEC	.610	MBALL	38|
43	83	1.03	0	PCT	19	P2	AV4	.00		TEH	TEC	.610	MBALL	38|
38	84	.80	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	MBALL	38|
40	84	.90	0	PCT	17	P2	AV3	.00		TEH	TEC	.610	MBALL	38|
43	84	.78	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	MBALL	38|
43	84	2.03	0	PCT	28	P2	AV3	.00		TEH	TEC	.610	MBALL	38|
40	85	1.15	0	PCT	18	P2	AV2	.00		TEH	TEC	.610	MBALL	40|
40	85	1.19	0	PCT	19	P2	AV3	.00		TEH	TEC	.610	MBALL	40|
45	85	1.60	0	PCT	23	P2	AV3	.00		TEH	TEC	.610	MBALL	40|
36	86	1.21	0	PCT	19	P2	AV2	.00		TEH	TEC	.610	MBALL	40|
36	86	1.65	0	PCT	24	P2	AV3	.00		TEH	TEC	.610	MBALL	40|
36	86	1.48	0	PCT	22	P2	AV4	.00		TEH	TEC	.610	MBALL	40|
37	87	.78	0	PCT	15	P2	AV1	.00		TEH	TEC	.610	MBALL	42|
37	87	1.46	0	PCT	22	P2	AV2	.00		TEH	TEC	.610	MBALL	42|
37	87	.97	0	PCT	17	P2	AV3	.00		TEH	TEC	.610	MBALL	42|
40	88	1.44	0	PCT	22	P2	AV2	.00		TEH	TEC	.610	MBALL	50|
40	88	1.77	0	PCT	25	P2	AV3	.00		TEH	TEC	.610	MBALL	50|
36	89	1.23	0	PCT	19	P2	AV3	.00		TEH	TEC	.610	MBALL	44|
36	90	1.92	0	PCT	25	P2	AV2	.00		TEH	TEC	.610	MBALL	52|
36	90	2.76	0	PCT	31	P2	AV3	.00		TEH	TEC	.610	MBALL	52|
36	90	1.08	0	PCT	17	P2	AV4	.00		TEH	TEC	.610	MBALL	52|
42	90	2.67	0	PCT	31	P2	AV2	.00		TEH	TEC	.610	MBALL	44|
42	90	2.10	0	PCT	27	P2	AV3	.00		TEH	TEC	.610	MBALL	44|

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL COMMENTS
42	90	1.86	0	PCT	25	P2	AV4	.00		TEM	TEC	.610	MBALL	44
40	91	1.41	0	PCT	22	P2	AV3	.00		TEM	TEC	.610	MBALL	50
33	92	1.62	0	PCT	24	P2	AV3	.00		TEM	TEC	.610	MBALL	50
40	92	1.77	0	PCT	25	P2	AV2	.00		TEM	TEC	.610	MBALL	50
40	92	2.99	0	PCT	33	P2	AV3	.00		TEM	TEC	.610	MBALL	50
40	92	1.49	0	PCT	22	P2	AV4	.00		TEM	TEC	.610	MBALL	50
41	92	1.85	0	PCT	18	P2	AV2	.00		TEM	TEC	.610	MBALL	50
41	92	2.63	0	PCT	27	P2	AV3	.00		TEM	TEC	.610	MBALL	50
41	92	1.77	0	PCT	25	P2	AV4	.00		TEM	TEC	.610	MBALL	50
36	93	.91	0	PCT	15	P2	AV2	.00		TEM	TEC	.610	MBALL	52
40	94	1.30	0	PCT	22	P2	AV3	.00		TEM	TEC	.610	MBALL	50
40	94	1.48	0	PCT	21	P2	AV3	.00		TEM	TEC	.610	MBALL	52
41	94	1.28	0	PCT	19	P2	AV3	.00		TEM	TEC	.610	MBALL	52
42	94	.84	0	PCT	15	P2	AV1	.00		TEM	TEC	.610	MBALL	50
42	94	1.19	0	PCT	19	P2	AV4	.00		TEM	TEC	.610	MBALL	50
38	95	1.42	0	PCT	23	P2	AV2	.00		TEM	TEC	.610	MBALL	50
38	95	1.74	0	PCT	26	P2	AV3	.00		TEM	TEC	.610	MBALL	50
40	95	1.45	0	PCT	23	P2	AV2	.00		TEM	TEC	.610	MBALL	50
40	95	1.22	0	PCT	21	P2	AV3	.00		TEM	TEC	.610	MBALL	50
36	96	.87	0	PCT	16	P2	AV2	.00		TEM	TEC	.610	MBALL	54
36	96	.99	0	PCT	17	P2	AV3	.00		TEM	TEC	.610	MBALL	54
40	97	1.09	0	PCT	17	P2	AV3	.00		TEM	TEC	.610	MBALL	52
40	97	1.58	0	PCT	22	P2	AV4	.00		TEM	TEC	.610	MBALL	52
32	99	1.16	0	PCT	19	P2	AV3	.00		TEM	TEC	.610	MBALL	54
36	99	1.32	0	PCT	20	P2	AV1	.00		TEM	TEC	.610	MBALL	56
36	99	1.27	0	PCT	19	P2	AV2	.00		TEM	TEC	.610	MBALL	56
36	99	3.58	0	PCT	35	P2	AV3	.00		TEM	TEC	.610	MBALL	56
36	99	1.87	0	PCT	25	P2	AV4	.00		TEM	TEC	.610	MBALL	56
31	100	.87	0	PCT	15	P2	AV3	.00		TEM	TEC	.610	MBALL	54
34	100	1.21	0	PCT	20	P2	AV3	.00		TEM	TEC	.610	MBALL	54
31	101	.87	0	PCT	15	P2	AV3	.00		TEM	TEC	.610	MBALL	56
34	101	2.46	0	PCT	29	P2	AV3	.00		TEM	TEC	.610	MBALL	56
31	102	.98	0	PCT	16	P2	AV3	.00		TEM	TEC	.610	MBALL	56
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL COMMENTS

CDE-D AVB WEAR INDICATIONS

Braidwood A2R07 CDE D5

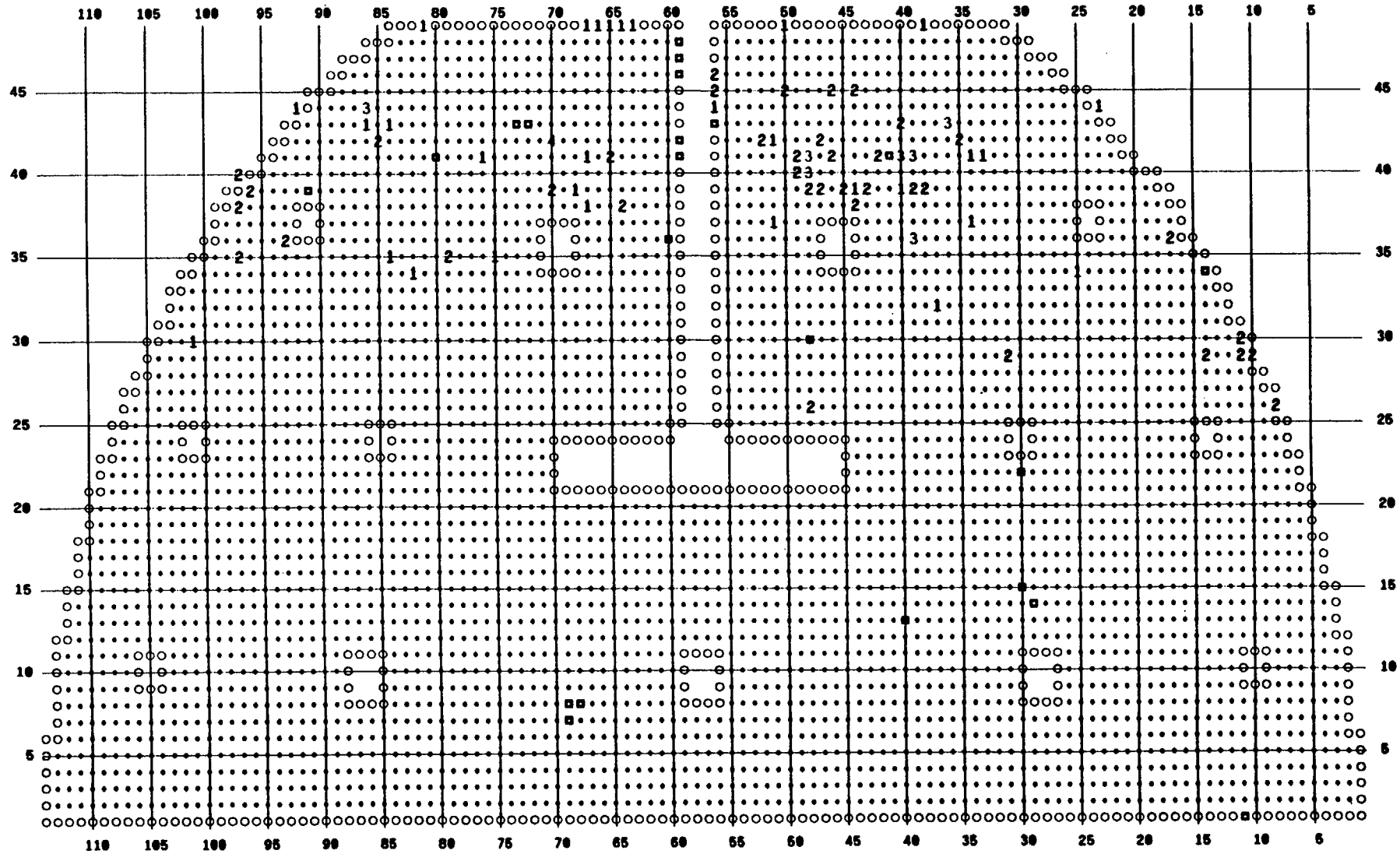
4 1 INDICATION 40% AND GREATER

3 7 INDICATION 30% TO 39%

2 38 INDICATION 20% TO 29%

1 30 INDICATION 15% TO 19%

▫ 22 PLUGGED TUBE



Westinghouse Electric Co - NSD BT98 05/05/1999 14 47 36

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	COMMENTS
26	8	1.13	0	PCT	20	P2	AV1	.00		TEH	TEC	.610	NBALL	2	
26	8	.82	0	PCT	17	P2	AV4	.00		TEH	TEC	.610	NBALL	2	
29	10	1.56	0	PCT	23	P2	AV2	.00		TEH	TEC	.610	NBALL	2	
29	10	1.80	0	PCT	25	P2	AV3	.00		TEH	TEC	.610	NBALL	2	
29	11	2.46	0	PCT	28	P2	AV2	.00		TEH	TEC	.610	NBALL	4	
29	11	1.73	0	PCT	22	P2	AV3	.00		TEH	TEC	.610	NBALL	4	
30	11	1.73	0	PCT	24	P2	AV2	.00		TEH	TEC	.610	NBALL	2	
30	11	1.02	0	PCT	17	P2	AV4	.00		TEH	TEC	.610	NBALL	2	
29	14	1.36	0	PCT	21	P2	AV2	.00		TEH	TEC	.610	NBALL	4	
29	14	1.43	0	PCT	22	P2	AV3	.00		TEH	TEC	.610	NBALL	4	
36	17	1.42	0	PCT	21	P2	AV2	.00		TEH	TEC	.610	NBALL	6	
44	23	.72	0	PCT	18	P2	AV3	.00		TEC	TEH	.610	NBALL	43	
34	25	.97	0	PCT	19	P2	AV2	.00		TEH	TEC	.610	NBALL	6	
34	25	.86	0	PCT	17	P2	AV3	.00		TEH	TEC	.610	NBALL	6	
29	31	1.35	0	PCT	21	P2	AV3	.00		TEH	TEC	.610	NBALL	18	
29	31	1.80	0	PCT	26	P2	AV4	.00		TEH	TEC	.610	NBALL	18	
41	33	.74	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	NBALL	20	
37	34	1.05	0	PCT	18	P2	AV2	.00		TEH	TEC	.610	NBALL	18	
37	34	.84	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	NBALL	18	
41	34	1.00	0	PCT	18	P2	AV3	.00		TEH	TEC	.610	NBALL	18	
42	35	1.65	0	PCT	24	P2	AV2	.00		TEH	TEC	.610	NBALL	18	
42	35	.77	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	NBALL	18	
42	35	.81	0	PCT	15	P2	AV4	.00		TEH	TEC	.610	NBALL	18	
43	36	1.12	0	PCT	20	P2	AV1	.00		TEH	TEC	.610	NBALL	20	
43	36	2.82	0	PCT	33	P2	AV3	.00		TEH	TEC	.610	NBALL	20	
32	37	.76	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	NBALL	20	
39	38	1.27	0	PCT	21	P2	AV3	.00		TEH	TEC	.610	NBALL	18	
49	38	.87	0	PCT	16	P2	AV4	.00		TEH	TEC	.610	NBALL	18	
36	39	2.50	0	PCT	30	P2	AV2	.00		TEH	TEC	.610	NBALL	18	
36	39	1.11	0	PCT	19	P2	AV3	.00		TEH	TEC	.610	NBALL	18	
39	39	1.61	0	PCT	24	P2	AV2	.00		TEH	TEC	.610	NBALL	18	
41	39	3.93	0	PCT	37	P2	AV2	.00		TEH	TEC	.610	NBALL	18	
41	39	2.84	0	PCT	32	P2	AV3	.00		TEH	TEC	.610	NBALL	18	
41	39	.80	0	PCT	15	P2	AV4	.00		TEH	TEC	.610	NBALL	18	
39	40	.81	0	PCT	16	P2	AV3	.00		TEH	TEC	.610	NBALL	20	
41	40	1.43	0	PCT	23	P2	AV2	.00		TEH	TEC	.610	NBALL	20	
41	40	3.78	0	PCT	37	P2	AV3	.00		TEH	TEC	.610	NBALL	20	
41	40	1.42	0	PCT	23	P2	AV4	.00		TEH	TEC	.610	NBALL	20	
43	40	.73	0	PCT	15	P2	AV1	.00		TEH	TEC	.610	NBALL	20	
43	40	.95	0	PCT	18	P2	AV2	.00		TEH	TEC	.610	NBALL	20	
43	40	1.25	0	PCT	22	P2	AV3	.00		TEH	TEC	.610	NBALL	20	
43	40	.90	0	PCT	17	P2	AV4	.00		TEH	TEC	.610	NBALL	20	
41	42	.81	0	PCT	25	P2	AV2	.00		TEH	TEC	.610	NBALL	24	
41	42	.87	0	PCT	16	P2	AV3	.00		TEH	TEC	.610	NBALL	24	
39	43	1.67	0	PCT	22	P2	AV3	.00		TEH	TEC	.610	NBALL	28	
38	44	1.41	0	PCT	22	P2	AV2	.00		TEH	TEC	.610	NBALL	22	
38	44	1.43	0	PCT	23	P2	AV3	.00		TEH	TEC	.610	NBALL	22	
39	44	.83	0	PCT	15	P2	AV3	.00		TEH	TEC	.610	NBALL	22	
45	44	.83	0	PCT	15	P2	AV2	.00		TEH	TEC	.610	NBALL	22	
45	44	1.17	0	PCT	20	P2	AV3	.00		TEH	TEC	.610	NBALL	22	
45	44	.86	0	PCT	16	P2	AV4	.00		TEH	TEC	.610	NBALL	22	
39	45	.86	0	PCT	16	P2	AV2	.00		TEH	TEC	.610	NBALL	26	
39	45	1.28	0	PCT	21	P2	AV3	.00		TEH	TEC	.610	NBALL	26	
41	46	1.53	0	PCT	23	P2	AV3	.00		TEH	TEC	.610	NBALL	28	
45	46	1.37	0	PCT	21	P2	AV3	.00		TEH	TEC	.610	NBALL	28	
39	47	1.38	0	PCT	20	P2	AV2	.00		TEH	TEC	.610	NBALL	28	
39	47	1.89	0	PCT	26	P2	AV3	.00		TEH	TEC	.610	NBALL	28	
42	47	1.52	0	PCT	22	P2	AV3	.00		TEH	TEC	.610	NBALL	28	
26	48	1.36	0	PCT	23	P2	AV2	.00		TEH	TEC	.610	NBALL	26	
39	48	1.18	0	PCT	21	P2	AV3	.00		TEH	TEC	.610	NBALL	26	
40	48	1.14	0	PCT	20	P2	AV2	.00		TEH	TEC	.610	NBALL	26	
40	48	2.85	0	PCT	33	P2	AV3	.00		TEH	TEC	.610	NBALL	26	
41	48	3.85	0	PCT	33	P2	AV2	.00		TEH	TEC	.610	NBALL	26	
41	48	1.16	0	PCT	19	P2	AV3	.00		TEH	TEC	.610	NBALL	26	
40	49	1.42	0	PCT	22	P2	AV2	.00		TEH	TEC	.610	NBALL	26	
41	49	1.75	0	PCT	26	P2	AV2	.00		TEH	TEC	.610	NBALL	26	
45	50	1.21	0	PCT	20	P2	AV1	.00		TEH	TEC	.610	NBALL	28	
45	50	2.85	0	PCT	27	P2	AV2	.00		TEH	TEC	.610	NBALL	28	
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	COMMENTS

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL COMMENTS
45	50	.94	0	PCT	16	P2	AV3	.00		TEM	TEC	.610	MBALL	28
49	50	1.15	0	PCT	19	P2	AV1	.00		TEM	TEC	.610	MBALL	28
37	51	1.07	0	PCT	17	P2	AV2	.00		TEM	TEC	.610	MBALL	28
42	51	1.06	0	PCT	18	P2	AV1	.00		TEM	TEC	.610	MBALL	26
42	51	1.16	0	PCT	19	P2	AV2	.00		TEM	TEC	.610	MBALL	26
42	52	1.29	0	PCT	21	P2	AV2	.00		TEM	TEC	.610	MBALL	26
42	52	.99	0	PCT	17	P2	AV3	.00		TEM	TEC	.610	MBALL	26
44	56	1.11	0	PCT	19	P2	AV2	.00		TEM	TEC	.610	MBALL	26
44	56	.80	0	PCT	16	P2	AV3	.00		TEM	TEC	.610	MBALL	26
45	56	1.22	0	PCT	20	P2	AV2	.00		TEM	TEC	.610	MBALL	26
45	56	2.22	0	PCT	29	P2	AV3	.00		TEM	TEC	.610	MBALL	26
46	56	.70	0	PCT	17	P2	AV2	.00		TEM	TEC	.610	MBALL	26
46	56	1.71	0	PCT	25	P2	AV3	.00		TEM	TEC	.610	MBALL	26
49	63	.78	0	PCT	15	P2	AV1	.00		TEM	TEC	.610	MBALL	36
49	63	.84	0	PCT	16	P2	AV4	.00		TEM	TEC	.610	MBALL	36
38	64	1.33	0	PCT	22	P2	AV2	.00		TEM	TEC	.610	MBALL	36
38	64	1.99	0	PCT	27	P2	AV3	.00		TEM	TEC	.610	MBALL	36
49	64	.89	0	PCT	17	P2	AV1	.00		TEM	TEC	.610	MBALL	36
41	65	1.86	0	PCT	25	P2	AV3	.00		TEM	TEC	.610	MBALL	34
49	65	.98	0	PCT	16	P2	AV1	.00		TEM	TEC	.610	MBALL	34
49	66	.87	0	PCT	15	P2	AV1	.00		TEM	TEC	.610	MBALL	34
38	67	1.00	0	PCT	18	P2	AV3	.00		TEM	TEC	.610	MBALL	36
41	67	.79	0	PCT	17	P2	AV2	.00		TEM	TEC	.610	MBALL	36
41	67	.78	0	PCT	15	P2	AV3	.00		TEM	TEC	.610	MBALL	36
49	67	.74	0	PCT	15	P2	AV4	.00		TEM	TEC	.610	MBALL	36
39	68	.98	96	PCT	16	P2	AV2	.00		TEM	TEC	.610	MBALL	38
39	70	.86	0	PCT	15	P2	AV2	.00		TEM	TEC	.610	MBALL	40
39	70	1.30	0	PCT	20	P2	AV3	.00		TEM	TEC	.610	MBALL	40
42	70	1.82	0	PCT	25	P2	AV1	.00		TEM	TEC	.610	MBALL	40
42	70	5.13	0	PCT	40	P2	AV2	.00		TEM	TEC	.610	MBALL	40
42	70	1.09	0	PCT	18	P2	AV3	.00		TEM	TEC	.610	MBALL	40
35	75	.92	0	PCT	16	P2	AV1	.00		TEM	TEC	.610	MBALL	42
35	75	1.19	0	PCT	19	P2	AV3	.00		TEM	TEC	.610	MBALL	42
41	76	.96	0	PCT	16	P2	AV2	.00		TEM	TEC	.610	MBALL	42
35	79	1.58	0	PCT	22	P2	AV2	.00		TEM	TEC	.610	MBALL	42
35	79	1.61	0	PCT	23	P2	AV3	.00		TEM	TEC	.610	MBALL	42
35	79	1.06	0	PCT	18	P2	AV4	.00		TEM	TEC	.610	MBALL	42
49	81	.82	0	PCT	15	P2	AV1	.00		TEM	TEC	.610	MBALL	44
34	82	1.08	0	PCT	17	P2	AV2	.00		TEM	TEC	.610	MBALL	46
35	84	.92	42	PCT	16	P2	AV4	.00		TEM	TEC	.610	MBALL	48
43	84	1.06	0	PCT	17	P2	AV3	.00		TEM	TEC	.610	MBALL	48
42	85	1.06	0	PCT	18	P2	AV2	.00		TEM	TEC	.610	MBALL	50
42	85	1.57	0	PCT	23	P2	AV3	.00		TEM	TEC	.610	MBALL	50
43	86	1.06	0	PCT	18	P2	AV2	.00		TEM	TEC	.610	MBALL	50
44	86	2.40	0	PCT	30	P2	AV2	.00		TEM	TEC	.610	MBALL	50
44	92	.80	0	PCT	15	P2	AV4	.00		TEM	TEC	.610	MBALL	54
38	93	.84	0	PCT	15	P2	AV1	.00		TEM	TEC	.610	MBALL	54
38	93	1.22	0	PCT	20	P2	AV3	.00		TEM	TEC	.610	MBALL	54
39	96	1.30	0	PCT	22	P2	AV2	.00		TEM	TEC	.610	MBALL	52
39	96	.77	0	PCT	15	P2	AV3	.00		TEM	TEC	.610	MBALL	52
35	97	1.21	0	PCT	20	P2	AV2	.00		TEM	TEC	.610	MBALL	54
38	97	1.48	0	PCT	21	P2	AV1	.00		TEM	TEC	.610	MBALL	54
38	97	1.22	0	PCT	19	P2	AV2	.00		TEM	TEC	.610	MBALL	54
38	97	1.25	0	PCT	20	P2	AV3	.00		TEM	TEC	.610	MBALL	54
40	97	.82	0	PCT	15	P2	AV2	.00		TEM	TEC	.610	MBALL	54
40	97	1.41	0	PCT	21	P2	AV3	.00		TEM	TEC	.610	MBALL	54
30	101	1.11	0	PCT	18	P2	AV2	.00		TEM	TEC	.610	MBALL	58
30	101	.85	0	PCT	15	P2	AV3	.00		TEM	TEC	.610	MBALL	58
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL COMMENTS

ATTACHMENT D

TABLE D.1:
SG TUBES REPAIRED DURING A2R07

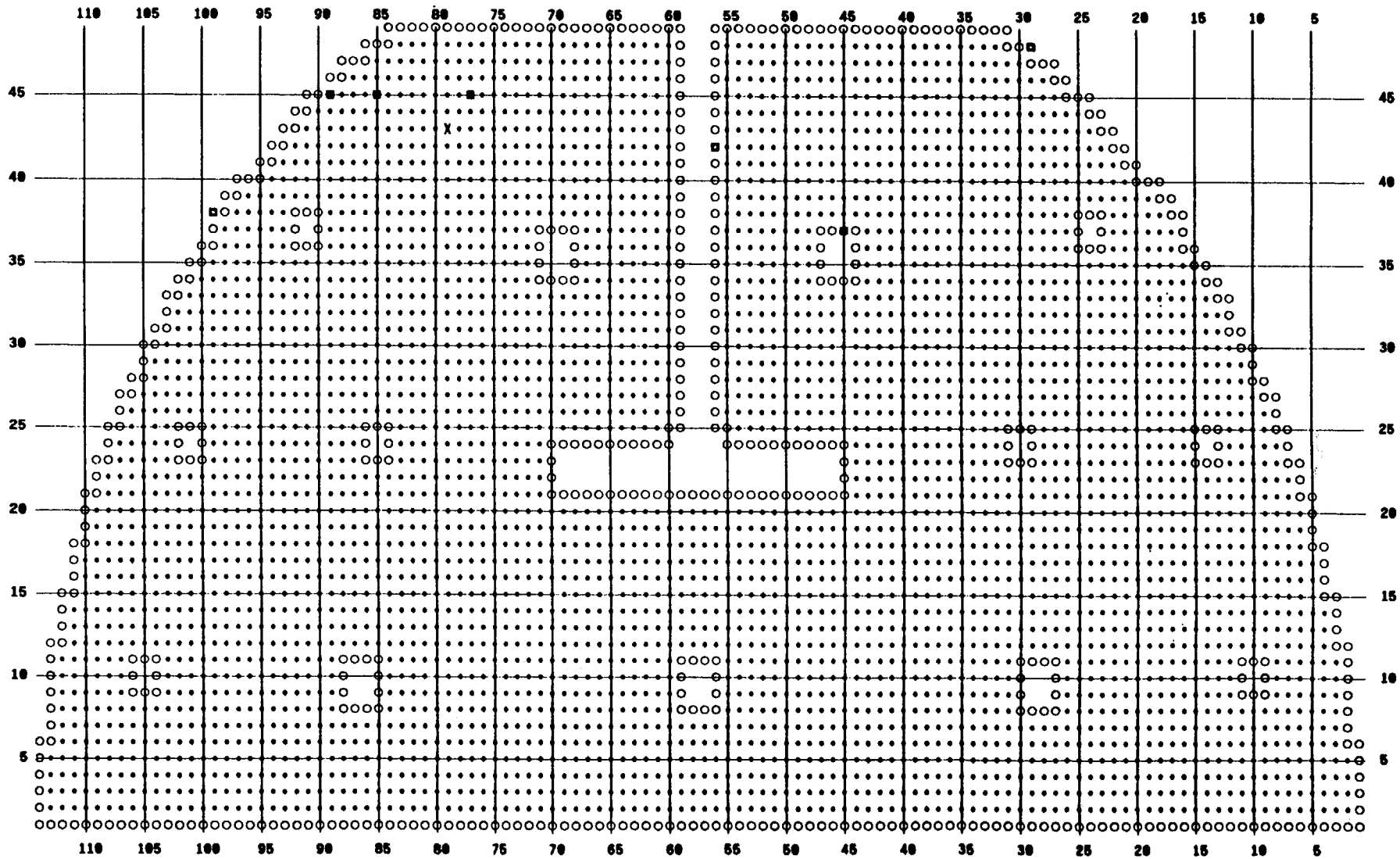
No.	SG	Row	Col.	Indication	Volts	Channel	Phase	Location
1	A	3	94	SCI	0.29	2	122	TSH-0.08
2	A	19	40	SCI	0.39	2	19	TSH-0.33
3	A	24	38	SCI	0.13	2	92	TSH-0.09
4	A	24	78	SCI	0.22	2	106	TSH-0.10
5	A	31	38	SCI	0.14	2	105	TSH-0.05
6	A	44	67	SVI	0.70	1	74	02C+0.98
7	A	36	16	43%	6.37	P2	85	AV2+0.00
8	B	2	57	TBP	1.30	1	21	11H+8.00
9	B	6	12	SCI	0.56	2	19	TSH-0.03
10	B	15	25	SCI	0.35	2	30	TSH-0.05
11	B	17	36	SCI	0.16	2	84	TSH-0.09
12	B	18	11	SCI	0.27	2	39	TSH-0.07
13	B	20	6	SCI	0.33	2	50	TSH-0.03
14	B	20	7	SCI	0.35	2	50	TSH-0.04
15	B	21	55	SVI	1.12	1	50	02C+0.34
16	B	27	32	SCI	0.23	2	53	TSH-0.09
17	B	28	25	SVI	0.92	1	72	01H+0.45
18	B	28	41	SCI	0.15	2	134	TSH-0.05
19	B	33	20	SCI	0.24	2	160	TSH-0.06
20	B	34	96	SCI	0.19	2	74	TSH-0.02
21	B	35	33	SCI	1.29	2	11	TSH-0.00
22	B	37	78	SCI	0.10	2	92	TSH-0.08
23	B	37	89	SCI	0.26	2	50	TSH-0.07
24	B	38	88	SCI	0.17	2	101	TSH-0.05
25	B	40	88	SCI	0.39	2	32	TSH-0.04
26	B	41	89	SCI	1.38	2	17	TSH-0.03
27	B	42	31	SCI	0.19	2	23	TSH-0.04
28	B	43	28	SCI	0.31	2	37	TSH-0.00
29	B	43	55	SCI	0.13	2	111	TSH-0.02
30	B	46	28	SCI	0.17	2	131	TSH-0.09
31	B	46	45	SCI	0.18	2	63	TSH-0.08
32	B	47	31	SCI	0.29	2	38	TSH-0.06
33	B	48	80	SCI	0.43	2	10	TSH-0.10
34	C	18	25	SVI	0.75	1	66	01H+0.51
35	C	19	27	SVI	0.35	1	102	01H+0.47
36	C	34	66	SVI	1.52	1	77	08H+0.70
37	C	35	59	MCI	0.24	2	86	TSH+0.03
38	C	49	53	SVI	1.93	1	121	08H+0.64

CDE-B TUBES PLUGGED DURING A2R07

Braidwood A2R07 CDE D5

X 1 TUBE PLUGGED DURING A2R07

▫ 7 EXISTING PLUGGED TUBE



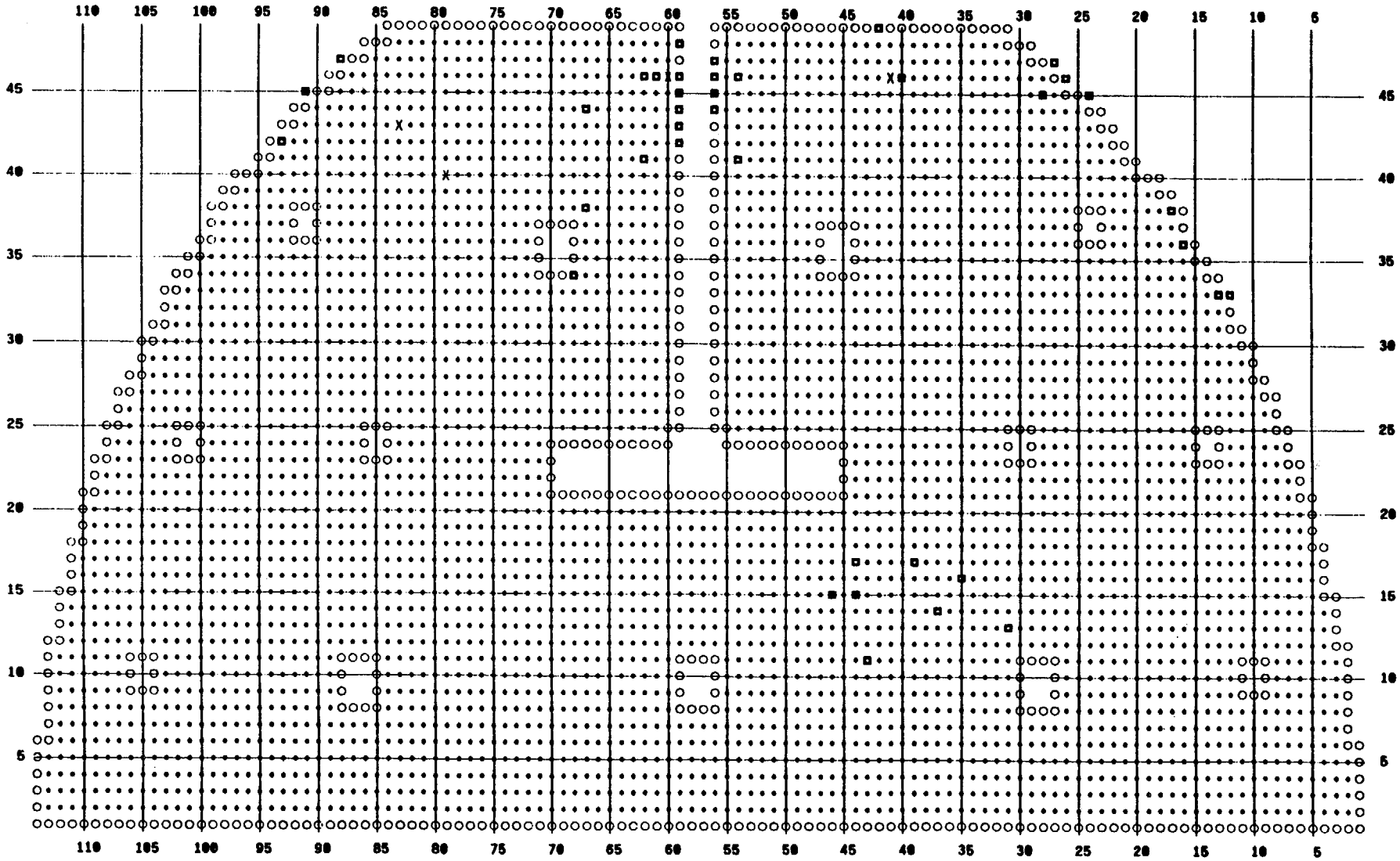
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	COMMENTS
				MDD						TBH	TBH	.610	ZPAHF	15	
43	79	2.51	180	DNG		P1	08H	11.45		TEH	TEC	.610	NBALL	46	
43	79	2.70	180	DNG		P1	08H	30.40		TEH	TEC	.610	NBALL	46	
43	79	2.56	180	DNG		P1	09H	5.21		TEH	TEC	.610	NBALL	46	
43	79	2.63	179	DNG		P1	09H	23.78		TEH	TEC	.610	NBALL	46	
43	79	2.56	182	DNG		P1	09H	29.80		TEH	TEC	.610	NBALL	46	
43	79	2.56	181	DNG		P1	09H	35.93		TEH	TEC	.610	NBALL	46	
43	79	2.67	180	DNG		P1	10H	-.73		TEH	TEC	.610	NBALL	46	
43	79	2.71	181	DNG		P1	10H	11.58		TEH	TEC	.610	NBALL	46	
43	79	2.80	180	DNG		P1	10H	17.72		TEH	TEC	.610	NBALL	46	
43	79	2.62	180	DNG		P1	10H	35.86		TEH	TEC	.610	NBALL	46	
43	79	4.46	186	DNG		P1	11H	5.07		TEH	TEC	.610	NBALL	46	
43	79	3.29	186	DNG		P1	11H	22.95		TEH	TEC	.610	NBALL	46	
43	79	2.68	183	DNG		P1	AV1	10.35		TEH	TEC	.610	NBALL	46	
43	79	5.20	0	PCT	41	P2	AV2	.00		TEH	TEC	.610	NBALL	46	
43	79	3.56	0	PCT	35	P2	AV3	.00		TEH	TEC	.610	NBALL	46	
43	79	1.99	0	PCT	26	P2	AV4	.00		TEH	TEC	.610	NBALL	46	
43	79	4.67	0	PID		P2	AV2	.00		TEH	TEC	.610	NBALL	106	

CDE-C TUBES PLUGGED DURING A2R07

Braidwood A2R07 CDE D5

X 4 TUBE PLUGGED DURING A2R07

▫ 39 EXISTING PLUGGED TUBE



Westinghouse Electric Co - NSD ST96 05/05/1999 10:29 49

CDE - C Tubes Plugged During AZR07

Braidwood 2 AZR07 CDE 19000501 06/06/1900 10:31:00

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	COMMENTS
46	41	3.43	0	PCT	35	P2	AV1	.00		TEH	TEC	.610	NBALL	18	
46	41	4.40	0	PCT	39	P2	AV2	.00		TEH	TEC	.610	NBALL	18	
46	41	6.01	0	PCT	44	P2	AV3	.00		TEH	TEC	.610	NBALL	18	
46	41	2.00	0	PCT	31	P2	AV4	.00		TEH	TEC	.610	NBALL	18	
46	41	5.90	0	PID		P2	AV3	.00		11H	TEC	.610	NBALL	66	
46	60	2.03	0	PCT	32	P2	AV2	.00		TEH	TEC	.610	NBALL	26	
46	60	7.03	0	PCT	44	P2	AV3	.00		TEH	TEC	.610	NBALL	26	
46	60	2.59	0	PCT	32	P2	AV4	.00		TEH	TEC	.610	NBALL	26	
46	60	6.34	0	PID		P2	AV3	.00		10H	TEC	.610	NBALL	66	
46	60			NOD						03C	03C	.610	ZPANF	70	
46	00			NOD						02C	02C	.610	ZPANF	70	
48	79	2.00	0	PCT	28	P2	AV1	.00		TEH	TEC	.610	NBALL	38	
48	79	3.70	0	PCT	37	P2	AV2	.00		TEH	TEC	.610	NBALL	38	
48	79	6.90	0	PCT	44	P2	AV3	.00		TEH	TEC	.610	NBALL	38	
48	79	1.45	0	PCT	23	P2	AV4	.00		TEH	TEC	.610	NBALL	38	
48	79	6.45	0	PID		P2	AV3	.00		11H	TEC	.610	NBALL	66	
43	83	3.00	173	DNT		P1	11H	.43		TEH	TEC	.610	NBALL	38	
43	83	1.07	0	PCT	19	P2	AV1	.00		TEH	TEC	.610	NBALL	38	
43	83	7.05	0	PCT	44	P2	AV2	.00		TEH	TEC	.610	NBALL	38	
43	83	2.21	0	PCT	29	P2	AV3	.00		TEH	TEC	.610	NBALL	38	
43	83	1.03	0	PCT	19	P2	AV4	.00		TEH	TEC	.610	NBALL	38	
43	83	7.04	0	PID		P2	AV2	.00		10H	TEC	.610	NBALL	66	
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL	COMMENTS

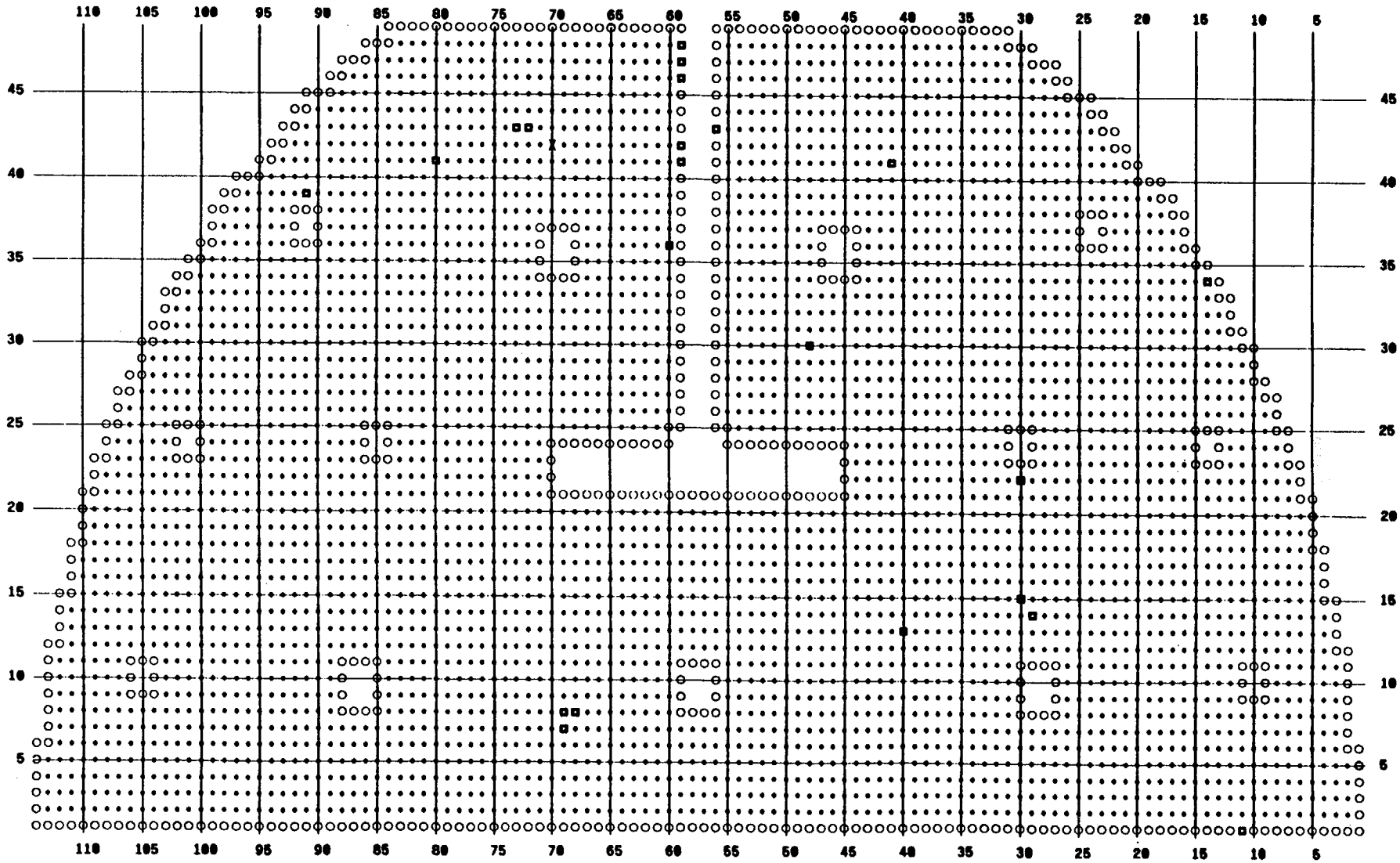
Tubes: 4 Records: 22

CDE-D TUBES PLUGGED DURING A2R07

Braidwood A2R07 CDE D5

X 1 TUBE PLUGGED DURING A2R07

▫ 22 EXISTING PLUGGED TUBE



Westinghouse Electric Co. - NSD 8798 05/05/1999 15 48 55

CDE - D Tubes Plugged During AER07

Braidwood 2 AER07 CDE 19000001 05/05/1990 15:51:21

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL COMMENTS
42	70			NBD						TEN	TEN	.610	ZPANF	13
42	70	1.82	0	PCT	25	P2	AV1	.00		TEN	TEC	.610	NBALL	40
42	70	5.13	0	PCT	40	P2	AV2	.00		TEN	TEC	.610	NBALL	40
42	70	1.00	0	PCT	18	P2	AV3	.00		TEN	TEC	.610	NBALL	40
42	70	.40	0	INR		P2	AV4	.00		TEN	TEC	.610	NBALL	40
42	70	5.53	0	PID		P2	AV2	.00		TEC	TEN	.610	NBALL	47

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	BEGT	ENDT	PDIA	PTYPE	CAL COMMENTS

Tubes: 1 Records: 6