Technical Specification 5.6.8

A subsidiary of Pinnacle West Capital Corporation

Palo Verde Nuclear Generating Station

Cliff Eubanks
Vice President
Nuclear Operations

Tel (623) 393-6116
Fax (623) 393-6077

Mail Station 7602
PO Box 52034
Phoenix, Arizona 85072-2034

102-05366-CE/DGM/DFH
October 24, 2005

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Sirs:

Reference: Unit 2 Special Report 2-SR-2005-001, Dated: April 27, 2005
Letter Number 102-05255 DMS/DGM/DFH

Subject: Palo Verde Nuclear Generating Station (PVNGS) Unit 2
Docket No. STN 50-529,
License No. NPF-51,
Special Report 2-SR-2005-001-01

Pursuant to PVNGS Technical Specification 5.6.8, enclosed is Supplement 1 to Special Report 2-SR-2005-001. This supplement provides the complete results of the steam generator tube inservice inspection that was performed during the Unit 2 twelfth refueling outage.

By copy of this letter and the enclosure, this Special Report is being provided to the NRC Region IV Administrator and the PVNGS Resident Inspector.

No commitments are being made to the NRC by this letter. Please contact Daniel G. Marks at (623) 393-6492 if you have any questions or require additional information.

Sincerely,

CE/DGM/DFH/ca
Attachment

cc: (with attachment)
B. S. Mallett NRC Region IV Regional Administrator
M. B. Fields NRC NRR Project Manager
G. G. Warnick NRC Senior Resident Inspector for Palo Verde

A047

Attachment 01

Special Report No. 2-SR-2005-001-01

COMPANY CORRESPONDENCE

DATE: August 4, 12005

TO: D. G. Marks
Sta. # 7636
Ext. # 6492

FROM: D. B. Hansen
Sta. # 7545
Ext. # 6373

Digitally signed by: Hansen, Douglas B (Z41530)
Date: 08/04/2005 06:12:06
Reason: I am the author of this document
Location: PVNGS

FILE:

SUBJECT: UNIT 2 S/G EDDY CURRENT EXAMINATION – U2R12 REFUELING OUTAGE

In accordance with Technical Specification 5.6.8, the complete results of the steam generator tube inservice inspection shall be submitted to the NRC in a special report within 12 months following completion of the inspection. The eddy current examinations and plugging was completed on April 17, 2005. The attached subject report is therefore due to the NRC by April 17, 2006.

If you have any questions or comments, please contact me at ext 7606.

DBH/dbh

wo attachment

cc: M. S. Coppock 7565
S. M. Sweeney 7696
M. A. Melton 7545
R. G. Hogstrom 7545

Palo Verde Nuclear Generating Station

UNIT 2
U2R12

ARIZONA PUBLIC SERVICE
P. O. BOX 52034
PHOENIX, AZ 85072

Prepared by: _____ Date: 4-21-05

Reviewed by: _____ Date: 6-16-05

Approved by: _____ Report Date: 7/12/05

Commercial Service Date: 9-19-86

INDEX

UNIT 2

STEAM GENERATOR EDDY CURRENT

U2 R12 Refueling Outage

1.0 Summary

The steam generator eddy current examination for the 12th refueling outage in Unit 2 was conducted during April 2005. The initial examination plan for both steam generators are listed in Table 1. This table summarizes the examinations performed for each of the various categories, examination types, extents, and the number of tubes or tube locations completed.

The examinations resulted in a total of 8 tubes being plugged in SG 21, and 7 tubes being plugged in SG 22. A description of the plugging history for these replacement steam generators is contained in Appendix F along with tube plug maps illustrating the plug locations for this outage.

2.0 Original Examination Plan

The original examination plan was developed based on the "PVNGS Steam Generator Degradation Assessment" developed per 81DP-9RC01 as required by NEI 97-06. In addition, possible damage mechanisms were reviewed along with the specific requirements set forth in 73TI-9RC01 and PVNGS Technical Specifications. The plan is summarized in Table 1 of this report. Appendix B contains the associated tube sheet maps for the various scopes.

Bobbin coil examinations were performed on essentially 100% of the tubing for general screening purposes, overall detection, and to satisfy Technical Specifications requirements.

3.0 Condition Monitoring and Operational Assessment

Per NEI 97-06, and PVNGS Procedure 81DP-9RC01, a condition monitoring evaluation was conducted by PVNGS Engineering. The results indicate that the steam generator tube integrity performance criteria were satisfied for Cycle 12. All defects exceeding the Technical Specification repair limits or the PVNGS Administrative Plugging criteria were removed from service. Based on a comparison of projected versus actual results for cycle 12,

there are no expected cycle length limitations for U2 cycle 13. As such there are no mode 4 entry restraints. An operational assessment as required by NEI 97-06 will document steam generator tube integrity will be satisfied for Unit 2 cycle 13.

4.0 Examination Results

The examination results for each of the steam generators, per the PVNGS Technical Specifications, were classified as C-2. The classification criteria is based on Technical Specification examinations (full length bobbin) and classified per the following:

- C-1; Less than 5% of the total tubes inspected are degraded tubes and none of the inspected tubes are defective.
- C-2; One or more tubes, but not more than 1% of the total tubes inspected are defective, or between 5% and 10% of the total tubes inspected are degraded tubes.
- C-3; More than 10% of the total tubes inspected are degraded tubes or more than 1% of the inspected tubes are defective.

Steam Generator 21

The bobbin coil eddy current examinations revealed 1 defective tube ($\geq$ 40%) and 4 degraded ($\geq$20%) tubes. RC examinations of dents detected 3 tubes containing abnormal dent indications. RC examinations performed on the periphery from the cold leg tube sheet to the 01C eggcrate, did not reveal any tubes with loose parts containing associated wear.

Steam Generator 22

The bobbin coil eddy current examinations revealed 0 defective tubes and 5 degraded tubes. RC examinations detected 1 tube containing an abnormal dent and 1 tube containing a small volumetric indication. RC examinations performed on the periphery from the cold leg tube sheet to the 01C eggcrate, did not reveal any tubes with loose parts containing associated wear.

A summary of the bobbin and RC examination results is located in Table 2 of this report. In addition, Appendix A contains a reference drawing of steam generator support locations. The summary data sheets of Appendix C and D list all tubes in each steam generator with indications expressed as a percent wall thickness reduction, or as an analysis code. Appendix E contains summary data sheets for tubes classified as possible loose parts.

5.0 Examination Techniques and Equipment

The eddy current examinations were performed by Westinghouse Electric Company using Zetec MIZ-70 digital data acquisition instrumentation, Westinghouse Anser acquisition software, and consisted of both Anser and Eddynet analysis systems. The following frequencies were used for the tube examinations:

Bobbin Coil	RC
500 KHz	800 KHz
300 KHz	300 KHz
100 KHz	100 KHz
35 KHz	35 KHz

Notes: For bobbin coil examinations these frequencies were utilized in both differential and absolute modes. Also note that the 800 KHz frequency was utilized during low radius U-Bend examinations only.

All tubing was examined with Zetec manufactured bobbin coil probes and Zetec RC style probes. Probe diameters were 0.540" to 0.610". Plus Point RC probes were used for the detection and characterization of the volumetric indications. Data acquisition in both steam generators was facilitated by using Westinghouse Genesis fixtures configured with either a quad or dual guide tube in each of the hot and cold legs. In addition, the "rail" system was installed and utilized in both steam generators. This facilitates moving the fixtures in the channel heads remotely. Two of the newly designed Westinghouse Pegasys robots were also utilized initially in each cold leg and later moved to the hot legs.

Fiber optic cable was used from containment to the data acquisition room located at the PVNGS North Annex. Primary analysis was all performed on site, whereas secondary analysis was performed both remotely and on site. The remote site received the data and returned results utilizing T-1 line technology. The remote Secondary Analysts were located in the Anatec International Inc. facility at the SONGS site in San Clemente, California. The Primary and Secondary Resolution Analysts, Independent Review Analysts, and data management were located at PVNGS in the North Annex. Westinghouse provided the data acquisition and primary data analysis. Anatec International, Inc. provided the secondary data analysis.

Each individual from Westinghouse and Anatec International, Inc. who performed data analysis was required to complete and pass a PVNGS site specific Eddy Current Data Analysis Course as well as an associated performance examination with at least a 80% proficiency. The only exceptions were the APS and Westinghouse Level III's due to their preparation of the site-specific test. All individuals performing data analysis were also required to have Qualified Data Analyst (QDA) certification.

6.0 Repair Techniques and Equipment

All repairs were performed utilizing the Westinghouse mechanical rolled plug. The plugs were installed in accordance with the PVNGS work control process utilizing the Genesis fixtures and associated remote plugging equipment.

TABLE 1

EXAMINATION SUMMARY

SCOPE DESCRIPTION		SG 21	SG 22
Exam Description	Extents	Scope	Scope
FULL LENGTH BOBBIN	TEC-TEH	12363 *	12361 *
HOT STRAIGHT SECTION BOBBIN	TEH-08H	206 *	206 *
COLD STRAIGHT and UBEND BOBBIN	TEC-08H	206 *	206 *
HOT STRAIGHT RC	VARIOUS	267*	230*
HOT U & SQUARE BEND RC	VARIOUS	561*	365*
COLD STRAIGHT RC	VARIOUS	851* / **	833* / **
COLD U & SQUARE BEND RC	VARIOUS	95*	73*

Notes:

1. The "*" above indicates that a map is provided in Appendix B.
2. ** This category includes 526 examinations from TSC to 01C on the periphery for the detection of possible loose parts.

TABLE 2

INDICATION SUMMARY

DAMAGE MECHANISM	STEAM GENERATOR 21	STEAM GENERATOR 22
WEAR 0% - 100% PLUGGED	26 (5)	22 (5)
Possible Loose Parts PLI PLP PLUGGED	0 16 (0)	0 8 (0)
Volumetric Indications SVI/MVI PLUGGED	3 (0)	4 (1)
BOBBIN DENTs $\geq$ 0.5 volts PLUGGED	894 (3)	696 (1)
PREVENTATIVE	(0)	(0)
TOTAL PLUGGED	(8)	(7)

NOTES

1. Numbers in (X) are tubes numbers plugged in each category
2. The above represent the numbers of tubes; not indications

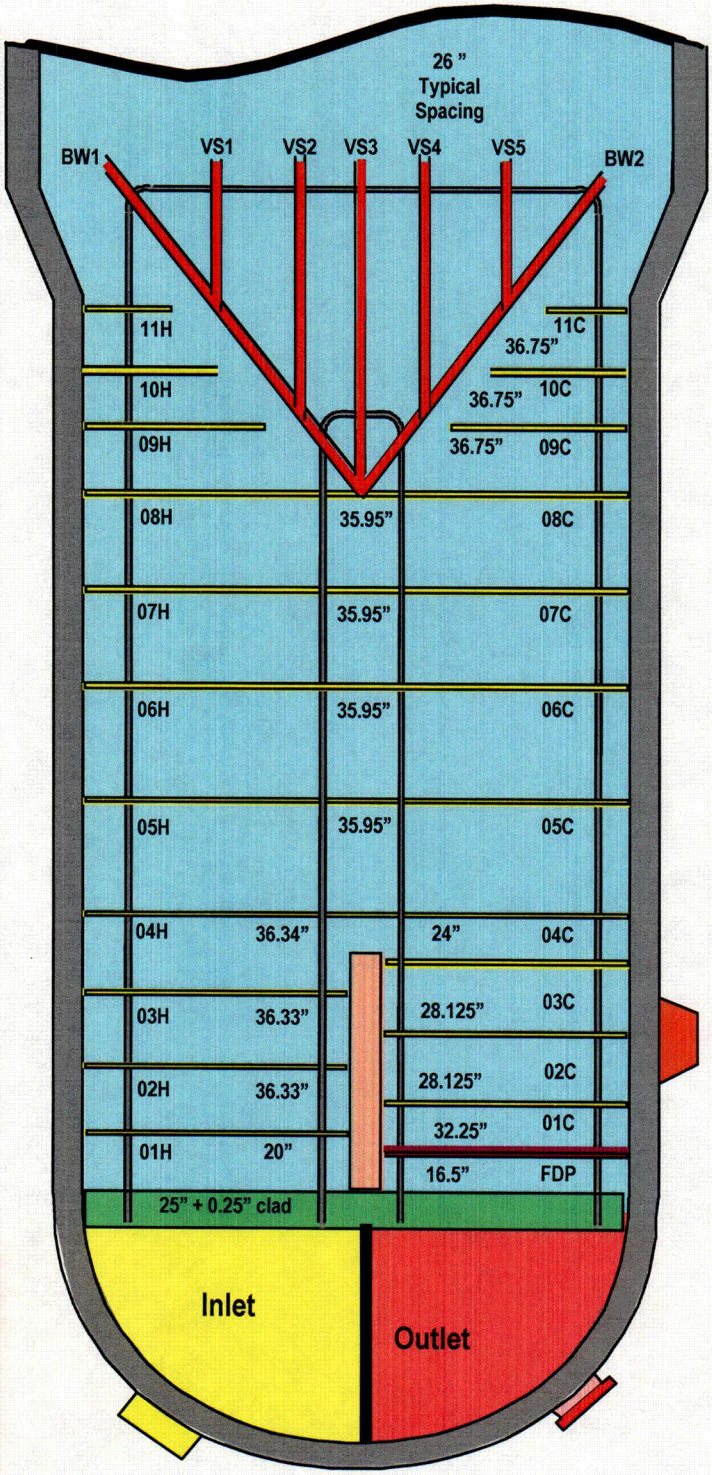
APPENDIX A

TUBE SUPPORT DIAGRAM,

LEGEND, and ANALYSIS CODES

PVNGS Steam Generator

REPLACEMENTS



Center of 08H to 08C
Row 1 - 17.415
Row 2 - 19.736
Row 3 - 22.056
Row 4 - 24.377
Row 5 - 26.698
Row 6 - 29.019

C01

LEGEND

ROW:	Indicates the row number of a given tube.
COL:	Indicates the column number of a given tube.
VOLTS:	Indicates the peak-to-peak voltage of a given indication response.
DEG:	The measured phase angle of a given indication response.
IND:	Indicates the analysis code or PCT for percent
PCT:	The percent through the tube wall of a given indication
CHN:	Indicates the channel used to measure and evaluate the referenced indication
LOCN:	Gives indication location at INCH1 to INCH2 relative to known landmarks such as supports, vertical straps, and batwings. Typical location codes are as follows:

#1 Vertical Strap VS1
#1 Batwing BW1
#1 Support Plate in Hot Leg.....01H
#7 Support Plate in Cold Leg.....07C
Top Tube Sheet Cold Leg .....TSC
Tube End Hot Leg.....TEH
Tube End Cold Leg.....TEC

CRLEN:	Indicates the flaw length
BEGT and ENDT:	Indicates the beginning and end of the test; together they document the examination extent
PDIA:	Documents the probe diameter
PTYPE:	The last two characters indicates the probe type used for examination

MF-bobbin coil mid-frequency (Zetec)
WR-bobbin coil mid-frequency (Westinghouse Replaceable)
SF-bobbin coil spring flex
HP or HZ-RC +point solid body
FP or FZ-RC +point, .115 flexible
MZ- +point flexible modular
MB-RC mag bias +point
PH-RC +point HF and MF flexible for UBends

CAL:	Indicates calibration number
L:	Indicates the leg the examination was conducted from
COM:	This comment field is utilized to document the UTIL1 and UTIL2 sizing measurements and APS Level III comments

Analysis CODES:

Absolute Drift	ADI
Apex Anomaly	APA
After Pressure Test	APT
Bad Data	BDA
Baseline Indication	BID
Bulge	BLG
Deposit	DEP
Dent	DNT
Distorted Support Signal With Indication	DSI
Distorted Top of Tubesheet With Indication	DTI
Expansion Anomaly	EXA
Fixture	FIX
Geometric Indication	GEO
ID Chatter	IDC
Indication Not Found	INF
Indication Not Reportable	INR
Multiple Axial Indication	MAI
Mixed Mode Indication	MMI
Multiple Circumferential Indication	MCI
Multiple Volumetric Indication	MVI
No Detectable Defect	NDD
No Discontunity Found	NDF
Non-Quantifiable Indication	NQI
No Tube Sheet Expansion	NTE
Obstructed	OBS
Previous Bobbin Call	PBC
Possible Deposit	PDP
Positive Identification	PID
Positive Identification Verified	PIV
Possible Loose Part with Indication	PLI
Possible Loose Part	PLP
Plus Point Indication	PPI
Previous RC Call	PRC
Possible Support Anomaly	PSA
Possible Support Indication	PSI
Positive Identification using Tubesheet	PTS
Retest With 3 coil Probe	R3C
Retest Identification Check	RIC
Retest with Magnetic Bias RC Probe	RMB
Single Axial Indication	SAI
Single Circumferential Indication	SCI
Single Volumetric Indication	SVI
Sludge	SLG
To Be Plugged	TBP

Util2 CODES:

Batwing Wrapper Bar Wear	BWW
Change	CH
Data Quality Acceptable	DQA
History Review	HR
Inside Diameter	ID
NEW	NEW
No Change	NC
No Loose Part Present	NLP
Manufacturing Induced Groove	MIG
Manufacturing Abnormality	LAP
Outside Diameter	OD
Pit like indication	PIT
Stake	SK
Senior Level III Review	SR
Tube to Tube Wear	TTW
Volumetric Inside Diameter	VID

APPENDIX B

ORIGINAL

EXAMINATION PLAN

SG - 21 Bobbin Program

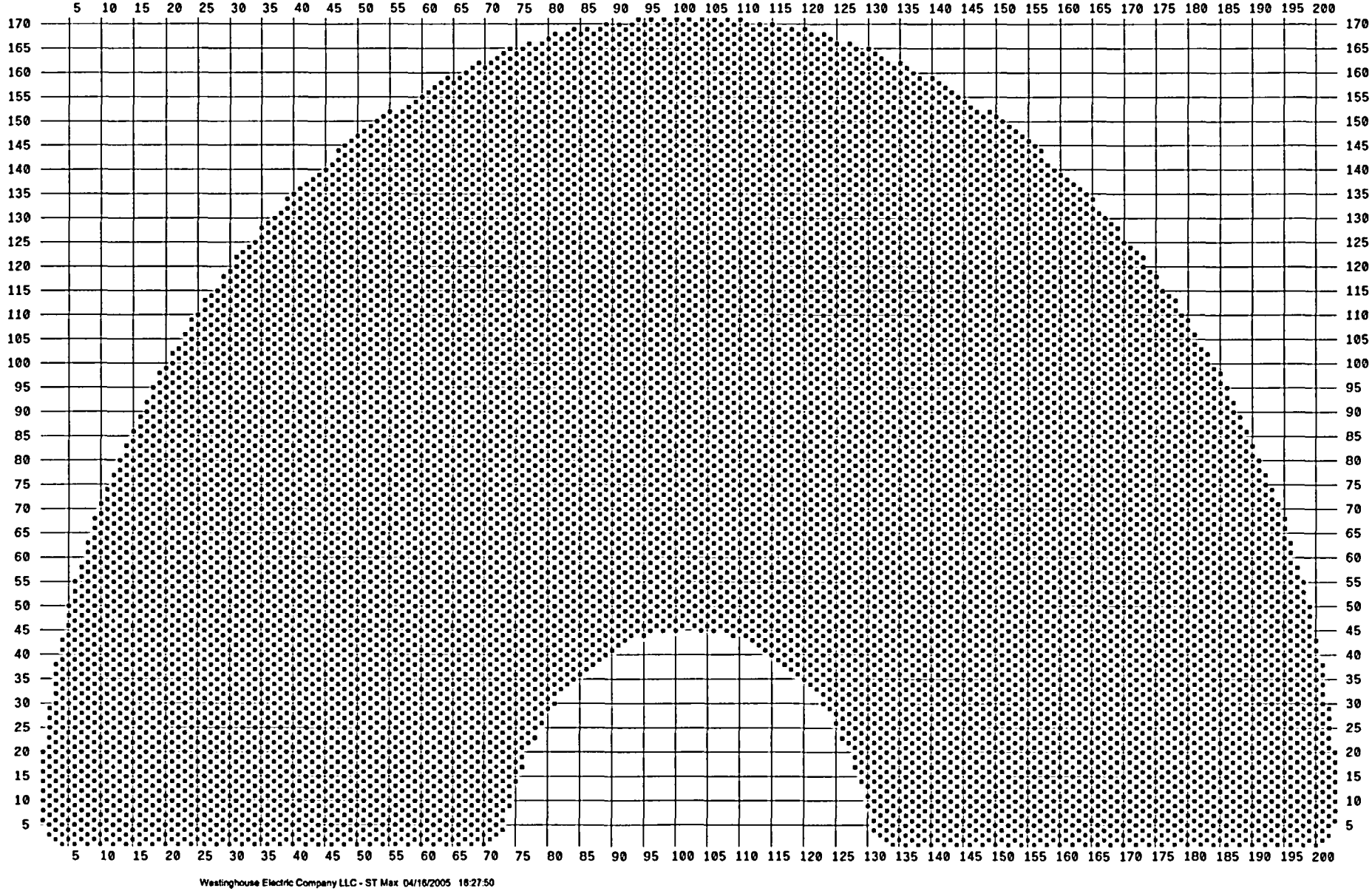
Palo Verde U2R12 PVNGS2 2RSG

■ 9595 Test TEH-TEC .610 at 80 IPS ▫ 11 Plugged Tube

■ 1740 Test TEH-TEC .610 at 50 IPS * 53 Stay Rod

■ 1028 Test TEH-TEC .610 at 24 IPS

■ 206 Test 08H-TEC .580 at 24 IPS from Cold Leg and 08H-TEH .610 at 24 IPS from Hot Leg



Westinghouse Electric Company LLC - ST Max 04/16/2005 16:27:50

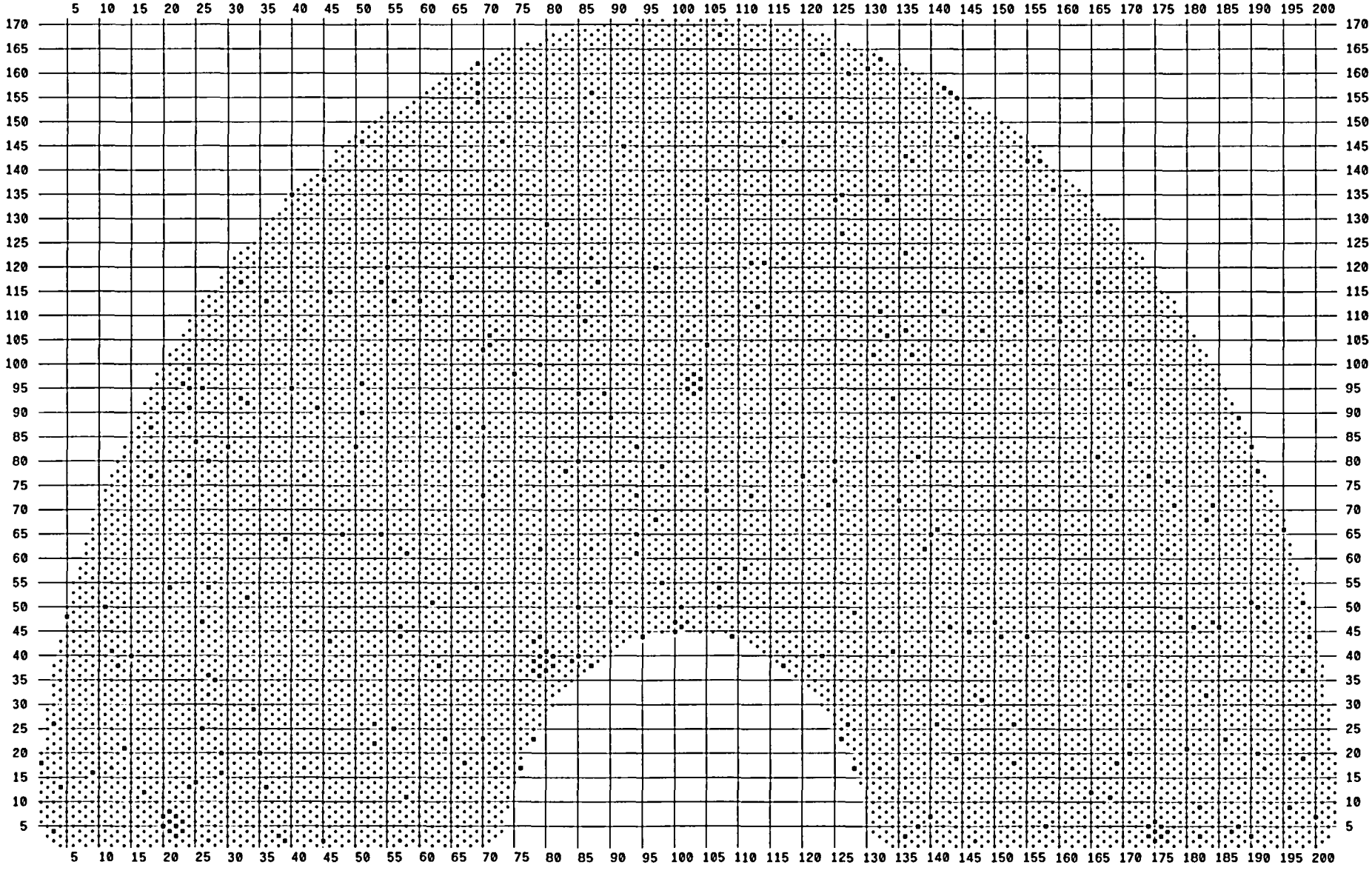
SG - 21 Hot Leg Straight Section +PT Tests

Palo Verde U2R12 PVNGS2 2RSG

■ 267 Tube with Straight Section +PT Test

• 53 Stay Rod

▫ 11 Plugged Tube



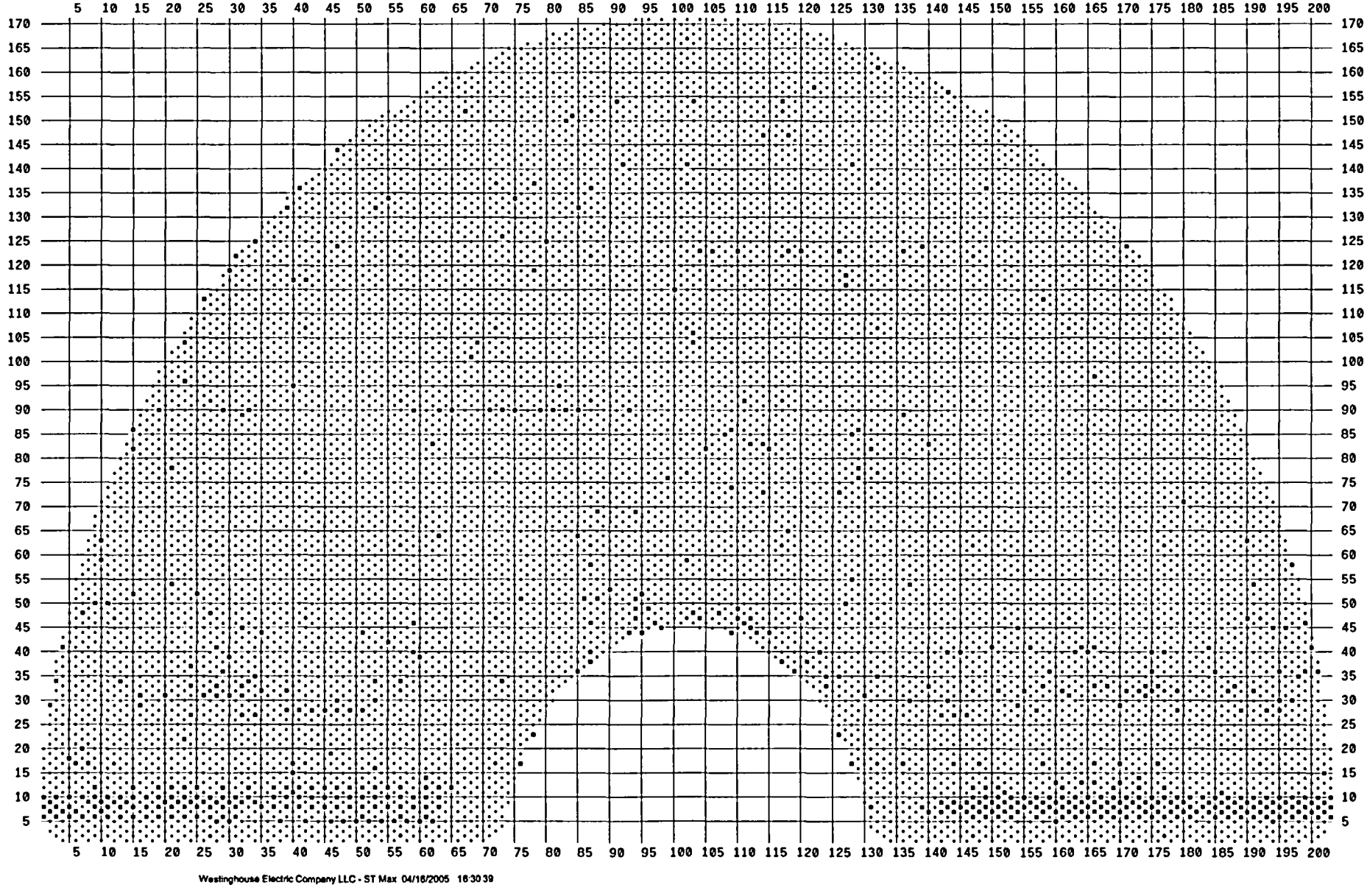
SG - 21 Hot Leg U-Bend +PT Tests

Palo Verde U2R12 PVNGS2 2RSG

■ 561 Tube with U-Bend +PT Test

• 53 Stay Rod

▫ 11 Plugged Tube



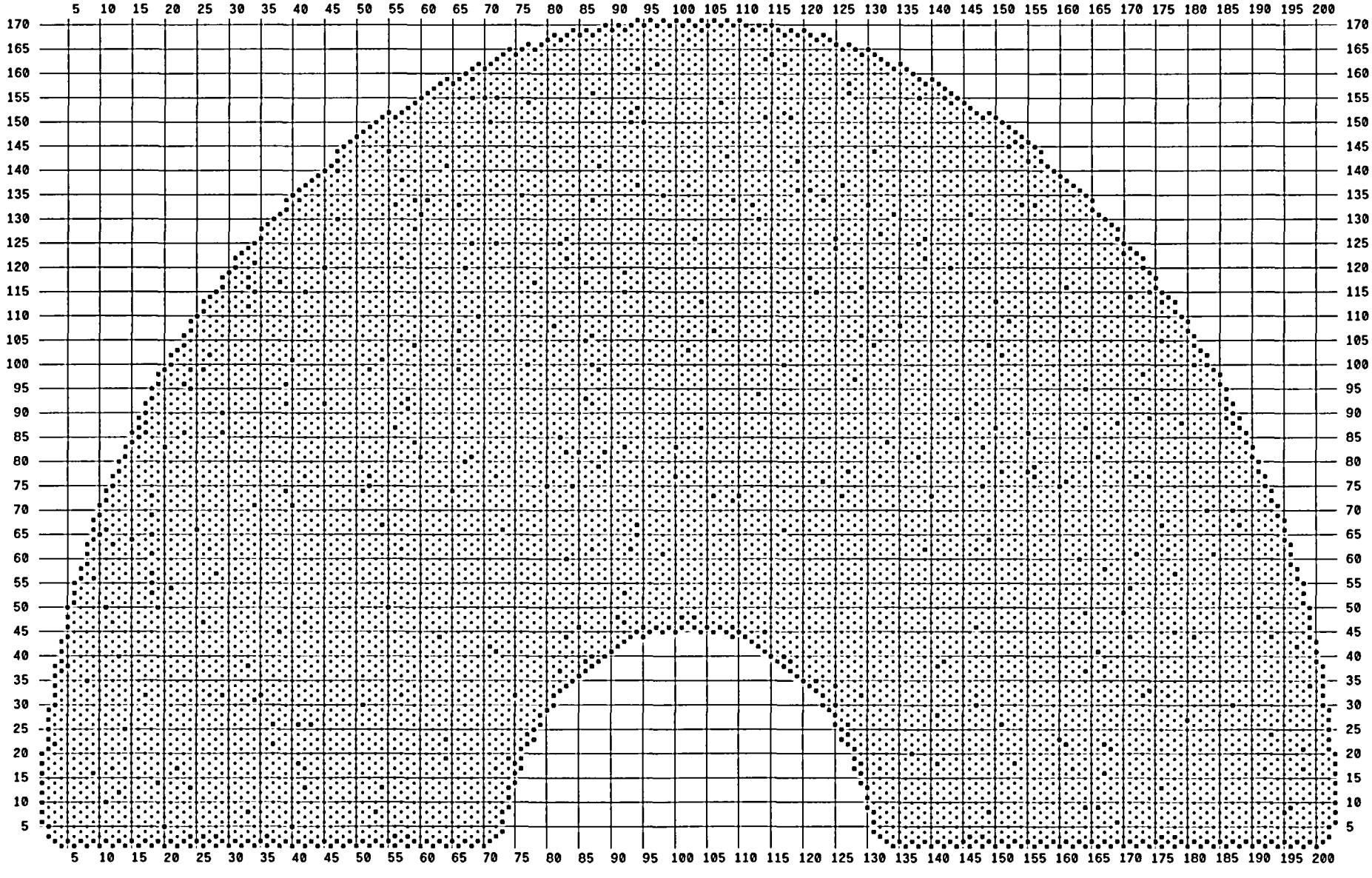
SG - 21 Cold Leg Straight Section +PT Tests

Palo Verde U2R12 PVNGS2 2RSG

■ 851 Tube with Straight Section +PT Test

* 53 Stay Rod

▫ 11 Plugged Tube



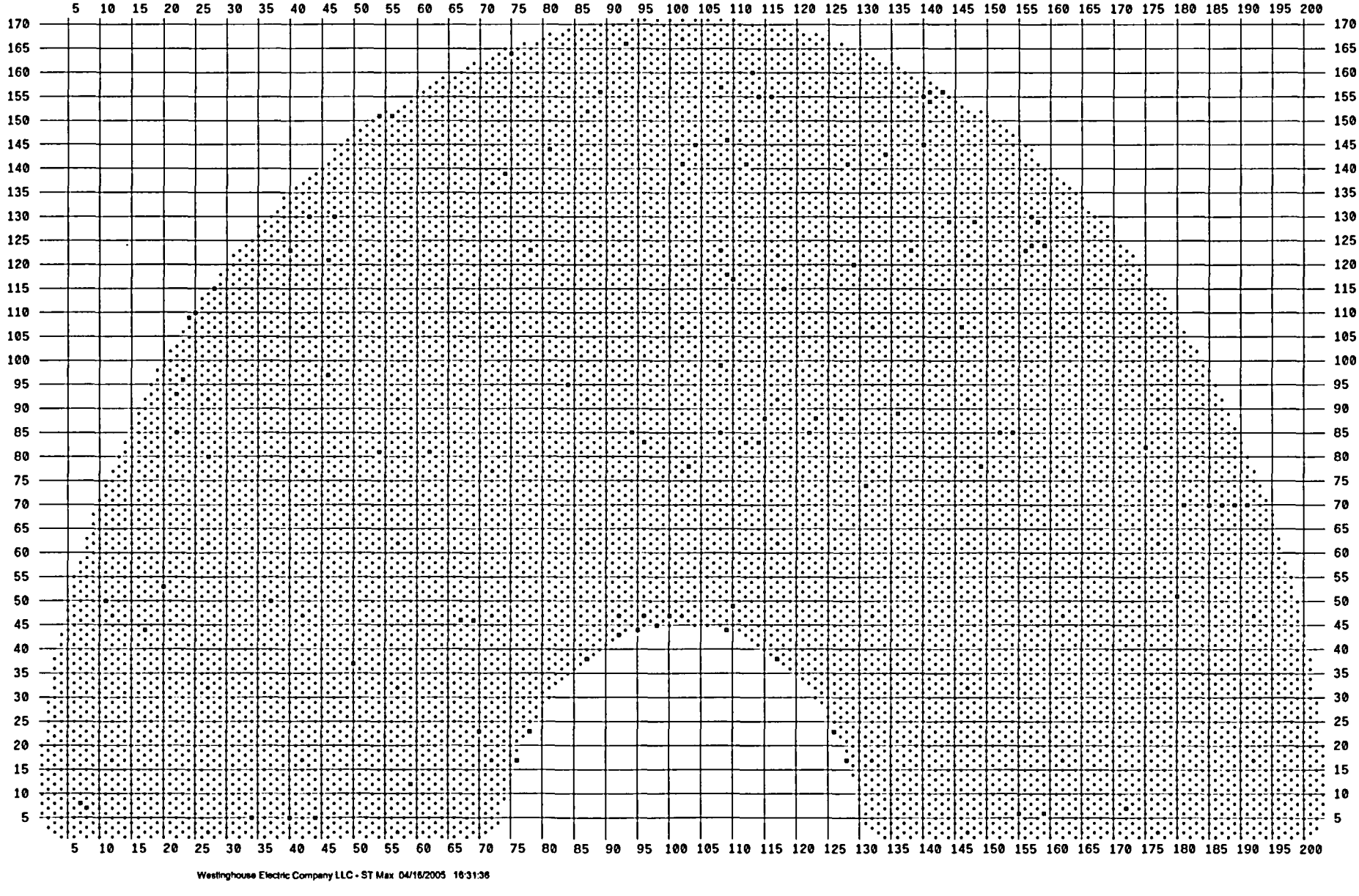
SG - 21 Cold Leg U-Bend +PT Tests

Palo Verde U2R12 PVNGS2 2RSG

■ 95 Tube with U-Bend +PT Test

* 53 Stay Rod

▫ 11 Plugged Tube



SG - 22 Bobbin Program

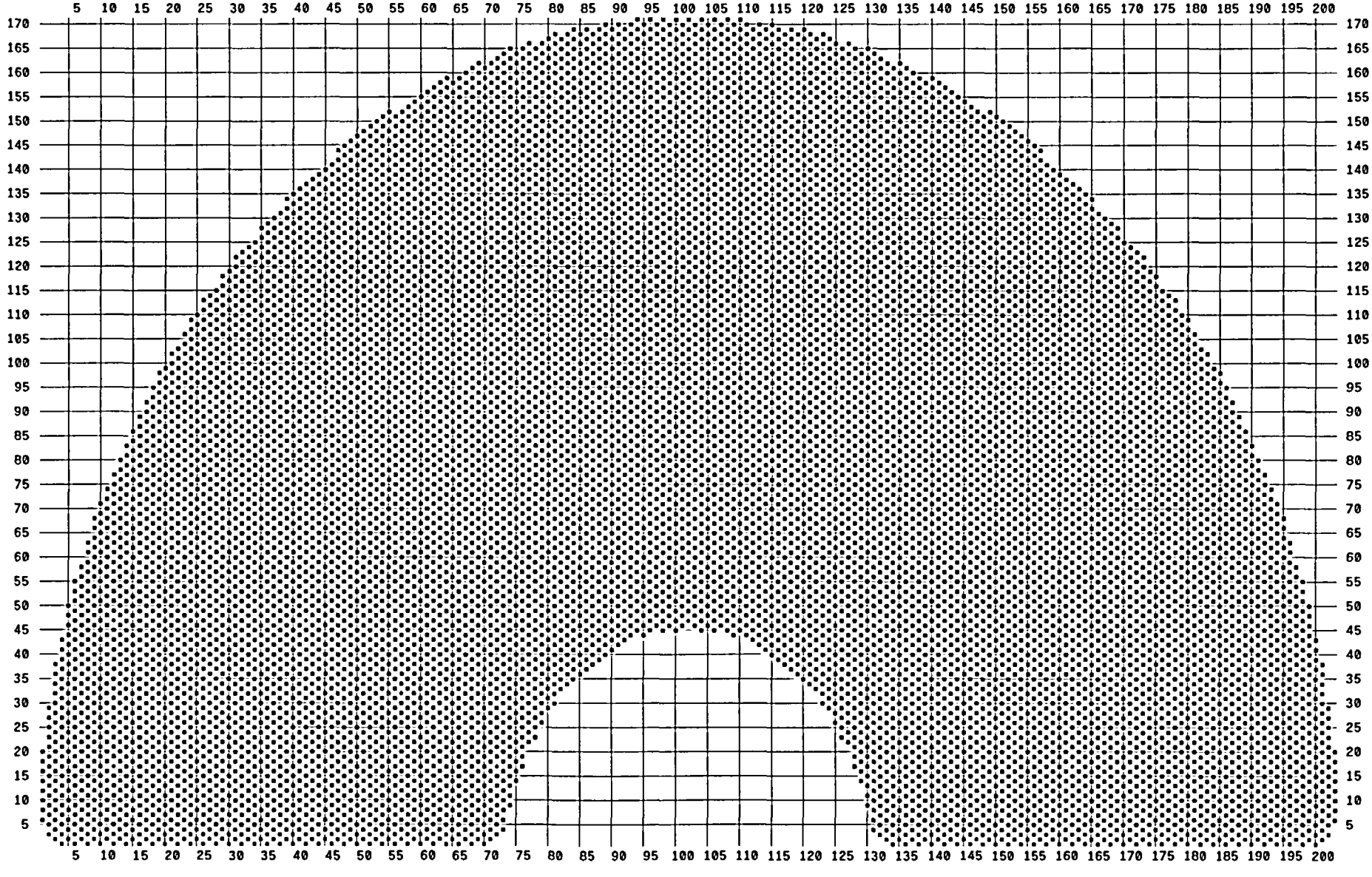
Palo Verde U2R12 PVNGS2 2RSG

■ 9595 Test TEH-TEC .610 at 80 IPS ▫ 13 Plugged Tube

■ 1738 Test TEH-TEC .610 at 50 IPS • 53 Stay Rod

■ 1028 Test TEH-TEC .610 at 24 IPS

■ 206 Test 08H-TEC .580 at 24 IPS from Cold Leg and 08H-TEH .610 at 24 IPS from Hot Leg



Westinghouse Electric Company LLC - ST Max 04/16/2005 16:32:59

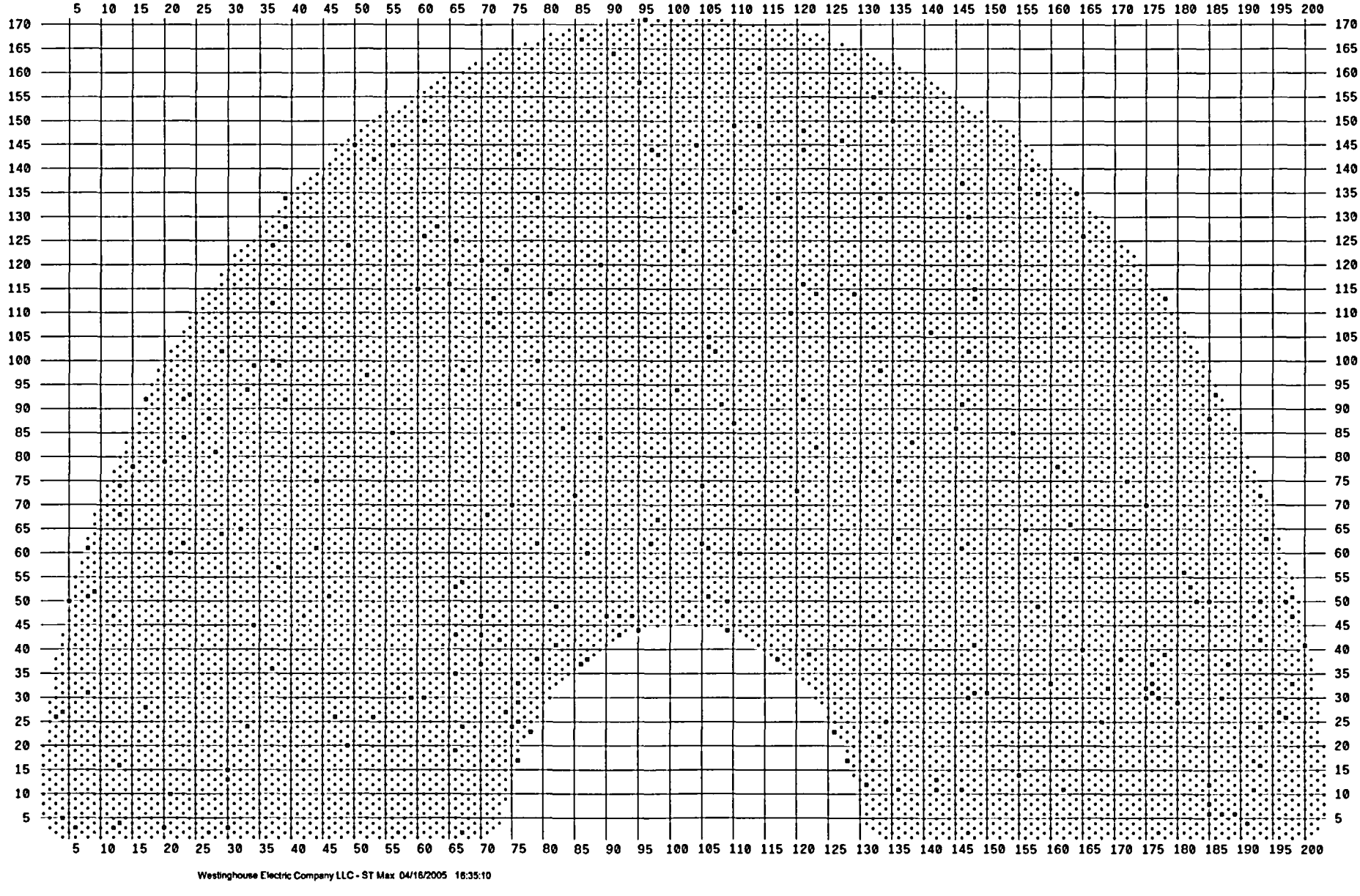
SG - 22 Hot Leg Straight Section +PT Tests

Palo Verde U2R12 PVNGS2 2RSG

■ 230 Tube with Straight Section +PT Test

• 53 Stay Rod

▫ 13 Plugged Tube



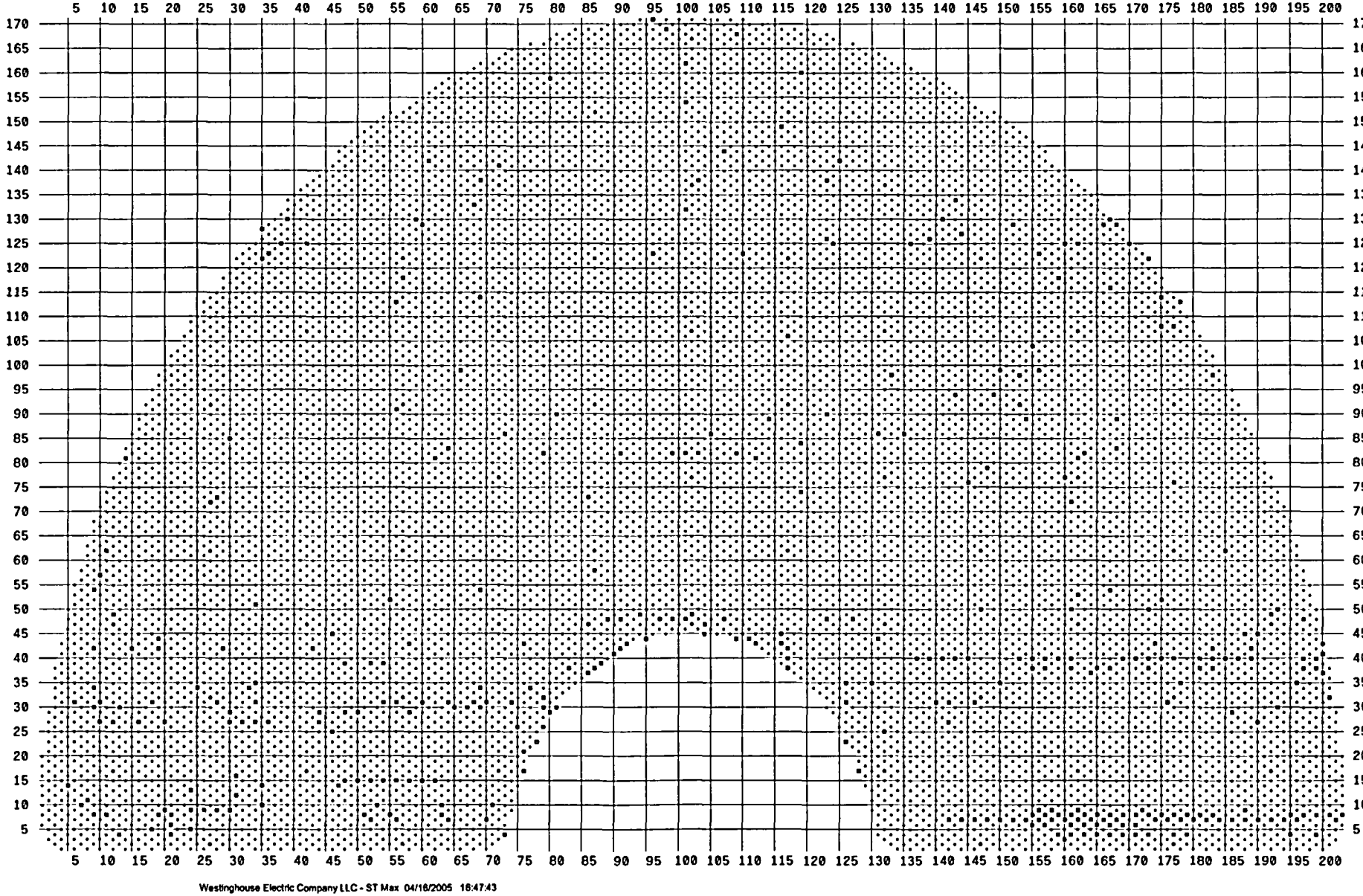
SG - 22 Hot Leg U-Bend +PT Tests

Palo Verde U2R12 PVNGS2 2RSG

■ 365 Tube with U-Bend +PT Test

• 53 Stay Rod

▫ 13 Plugged Tube



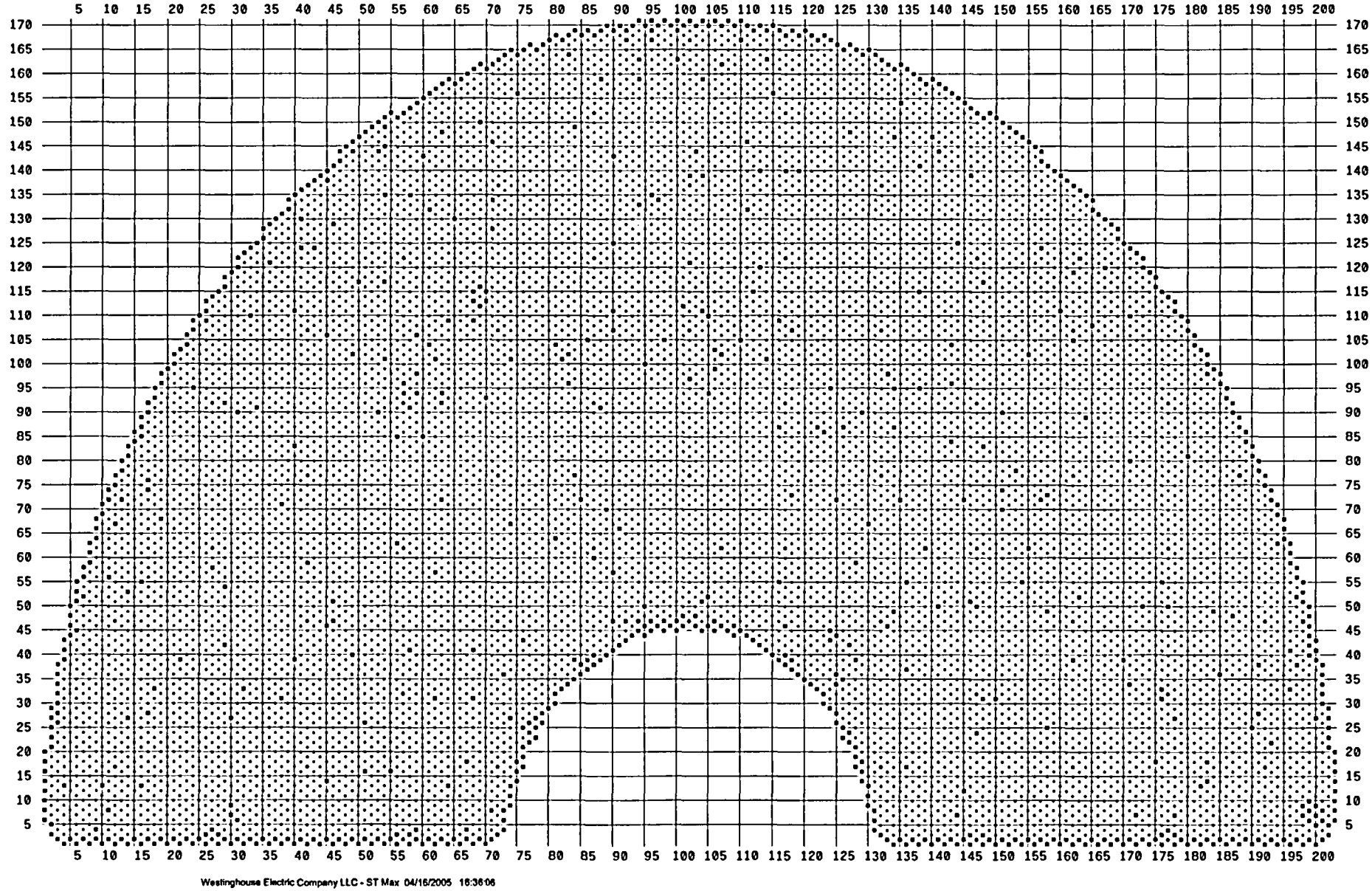
SG - 22 Cold Leg Straight Section +PT Tests

Palo Verde U2R12 PVNGS2 2RSG

■ 833 Tube with Straight Section +PT Test

• 53 Stay Rod

▫ 13 Plugged Tube



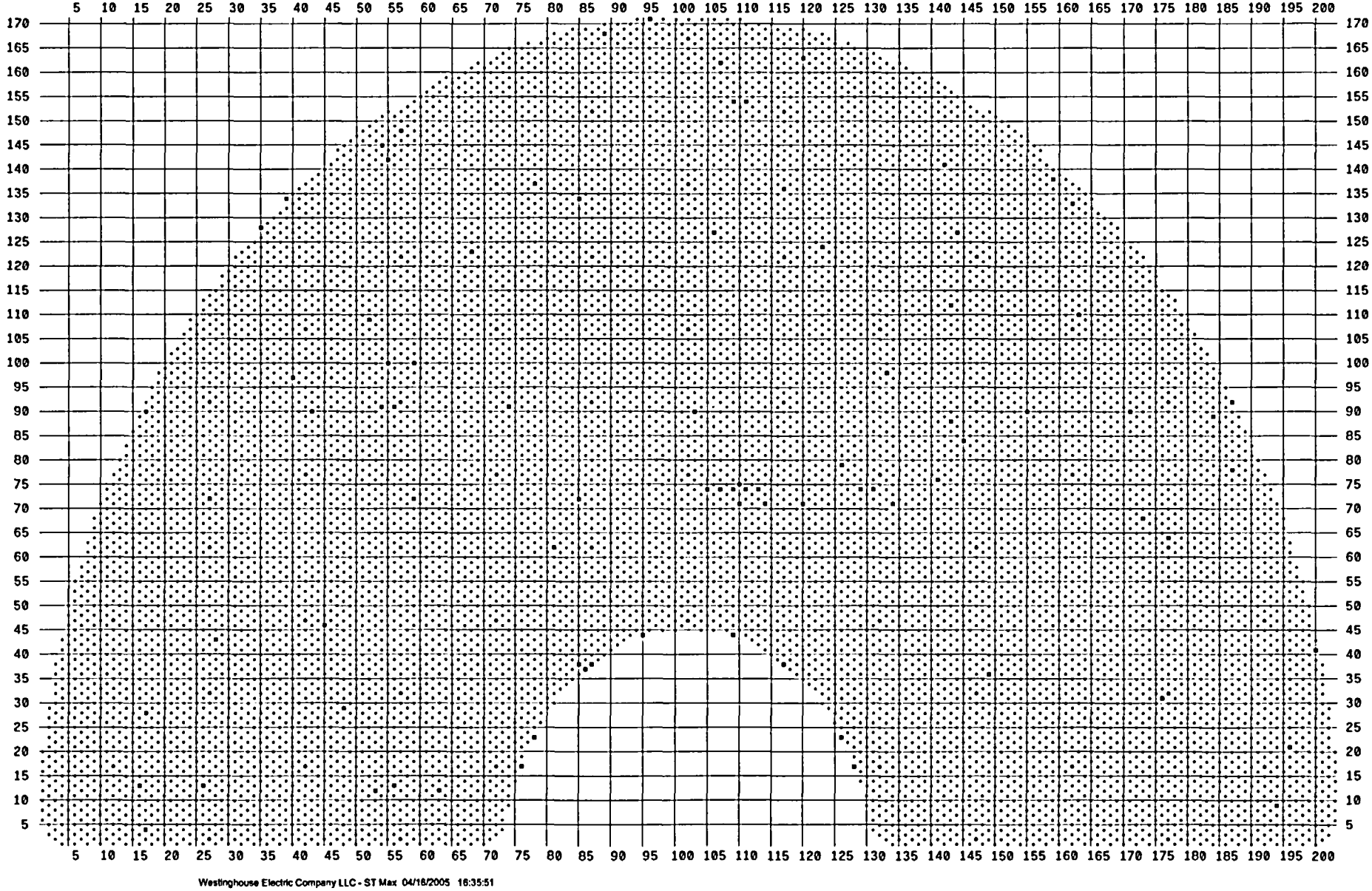
SG - 22 Cold Leg U-Bend +PT Tests

Palo Verde U2R12 PVNGS2 2RSG

■ 73 Tube with U-Bend +PT Test

• 53 Stay Rod

▫ 13 Plugged Tube



APPENDIX C

STEAM GENERATOR 21

SUMMARY DATA SHEETS

SG - 21 Percent Indications and SVI's

Palo Verde 2 U2R12 PVNGS2 20050401 04/18/2005 07:50:44

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	COM
20	1	.21	97	SVI		2	TSC	-1.35		.24	TSC	01C	.600	ZPSHZ	25	C	NC
20	1																PIT
48	7	.20	22	DSI	7	P1	VS3	.62			TEH	TEC	.610	RBAL2	85	C	
59	10	.30	139	DSI	9	P1	VS3	.84			TEH	TEC	.610	RBAL2	84	C	
52	15	.22	134	DSI	12	P1	VS3	-.71			TEH	TEC	.610	RBAL2	85	C	
93	22	.16	96	DSI	6	P1	BW2	.78			TEH	TEC	.610	RBAL2	80	C	
48	27	.26	50	DSI	11	P1	VS3	-.78			TEH	TEC	.610	RBAL2	82	C	
31	34	.10	59	SVI		2	05C	10.03		.24	05C	06C	.600	ZPSHZ	25	C	LAP
31	34																NC
42	55	.17	107	DSI	9	P1	VS3	-.73			TEC	TEH	.610	RBAL2	46	H	
40	59	.17	126	DSI	8	P1	VS3	-.81			TEC	TEH	.610	RBAL2	46	H	
23	70	.21	134	DSI	7	P1	BW2	-.75			TEH	TEC	.610	ZBAU2	57	C	
36	85	.57	134	DSI	16	P1	BW1	-.72			TEH	TEC	.610	ZBAU2	19	C	
36	85	.83	90	PCT	16	P3	BW1	-.72			08H	VS3	.580	ZPUFZ	83	H	
64	85	.45	161	DSI	9	P1	VS3	1.03			TEC	TEH	.610	ZBAU2	12	H	
40	87	.49	103	DSI	21	P1	VS3	-.81			TEH	TEC	.610	RBAL2	73	C	
40	87	.61	84	PCT	12	P3	VS3	-.78			VS3	VS3	.580	ZPUFZ	83	H	
46	87	.27	136	DSI	10	P1	VS3	.83			TEH	TEC	.610	RBAL2	73	C	
46	87	.41	92	PCT	8	P3	VS3	1.06			VS3	VS3	.580	ZPUFZ	83	H	
58	87	.14	108	DSI	7	P1	VS3	-.86			TEH	TEC	.610	RBAL2	73	C	
51	88	.91	166	DSI	13	P1	VS3	.79			TEH	TEC	.610	RBAL2	74	C	
43	92	.28	123	DSI	12	P1	BW2	.88			TEH	TEC	.610	RBAL2	73	C	
47	92	.49	125	DSI	16	P1	BW2	-.86			TEH	TEC	.610	RBAL2	74	C	
47	92	.67	70	PCT	12	P3	BW2	-.90			08C	VS3	.580	ZPUFZ	88	C	
44	93	.61	154	DSI	14	P1	BW1	-.88			TEH	TEC	.610	RBAL2	73	C	
44	93	.87	98	PCT	16	P3	BW1	-.88			08H	VS3	.580	ZPUFZ	83	H	
47	94	.28	131	DSI	9	P1	VS3	-.85			TEH	TEC	.610	RBAL2	74	C	
47	94	.48	87	PCT	10	P3	VS3	-.85			VS3	VS3	.580	ZPUFZ	83	H	
49	94	.46	110	DSI	17	P1	VS3	.78			TEH	TEC	.610	RBAL2	74	C	
49	94	.76	84	PCT	15	P3	VS3	.78			VS3	VS3	.580	ZPUFZ	83	H	
51	94	.33	160	DSI	9	P1	VS3	.81			TEH	TEC	.610	RBAL2	74	C	
52	95	.28	37	DSI	13	P1	VS3	-.77			TEH	TEC	.610	RBAL2	75	C	
47	96	.19	122	DSI	7	P1	BW2	-.91			TEH	TEC	.610	RBAL2	74	C	
49	96	.29	135	DSI	9	P1	BW1	-.77			TEH	TEC	.610	RBAL2	74	C	
49	96	.43	92	PCT	9	P3	BW1	-.77			09H	VS3	.580	ZPUFZ	83	H	
46	97	.33	142	DSI	10	P1	BW1	-.83			TEH	TEC	.610	RBAL2	73	C	
46	97	.24	140	DSI	10	P1	VS3	.89			TEH	TEC	.610	RBAL2	73	C	
46	97	.49	74	PCT	10	P3	BW1	-.83			08H	VS3	.580	ZPUFZ	83	H	
46	97	.64	74	PCT	12	P3	VS3	.89			08H	VS3	.580	ZPUFZ	83	H	
45	98	.34	86	DSI	13	P1	BW1	-.90			TEH	TEC	.610	RBAL2	72	C	
45	98	.44	134	DSI	13	P1	BW2	-.93			TEH	TEC	.610	RBAL2	72	C	
45	98	.50	98	PCT	10	P3	BW1	-.90			08H	VS3	.580	ZPUFZ	83	H	
45	98	.76	77	PCT	14	P3	VS3	-1.03			08C	VS3	.580	ZPUFZ	88	C	
45	98	.83	79	PCT	15	P3	VS3	-.29			08C	VS3	.580	ZPUFZ	88	C	
45	98	.58	94	PCT	11	P3	BW2	-.85			08C	VS3	.580	ZPUFZ	88	C	

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | COM |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	COM
59	102	.41	149	DSI	10	P1	VS3	.89			TEH	TEC	.610	RBAL2	74	C	
59	102	.63	96	PCT	12	P3	VS3	.89			VS3	VS3	.580	ZPUFZ	83	H	
48	103	.58	84	DSI	24	P1	VS3	.84			TEH	TEC	.610	RBAL2	73	C	
48	103	.97	84	PCT	18	P3	VS3	.84			VS3	VS3	.580	ZPUFZ	83	H	
47	104	.53	87	DSI	22	P1	BW1	.81			TEH	TEC	.610	RBAL2	73	C	
47	104	.58	107	DSI	23	P1	VS3	-.88			TEH	TEC	.610	RBAL2	73	C	
47	104	.89	96	PCT	17	P3	BW1	.81			08H	VS3	.580	ZPUFZ	83	H	
47	104	.74	81	PCT	14	P3	VS3	-.83			08H	VS3	.580	ZPUFZ	83	H	
48	107	.34	145	DSI	12	P1	VS3	-1.05			TEH	TEC	.610	RBAL2	75	C	
48	107	.70	75	PCT	14	P3	VS3	-1.05			VS3	VS3	.580	ZPUFZ	83	H	
85	108	.99	156	DSI	16	P1	VS2	1.03			TEC	TEH	.610	ZBAU2	13	H	
85	108	.52	152	DSI	10	P1	VS4	-.85			TEC	TEH	.610	ZBAU2	13	H	
47	110	.55	139	DSI	16	P1	BW1	-.85			TEH	TEC	.610	RBAL2	74	C	
47	110	.99	94	PCT	18	P3	BW1	-.85			08H	VS3	.580	ZPUFZ	83	H	
49	110	1.41	116	DSI	34	P1	BW1	-.79			TEH	TEC	.610	RBAL2	74	C	
49	110	.31	139	DSI	9	P1	BW2	-.93			TEH	TEC	.610	RBAL2	74	C	
49	110	2.41	78	PCT	34	P3	BW1	-.79			09H	VS3	.580	ZPUFZ	83	H	
46	111	.67	111	DSI	25	P1	BW1	-.81			TEH	TEC	.610	RBAL2	73	C	
46	111	.91	81	PCT	17	P3	BW1	-.81			08H	VS3	.580	ZPUFZ	83	H	
45	112	.20	71	DSI	10	P1	VS3	-.78			TEH	TEC	.610	RBAL2	73	C	
45	112	.46	74	PCT	9	P3	VS3	-.78			VS3	VS3	.580	ZPUFZ	83	H	
47	112	.43	133	DSI	13	P1	VS3	-.79			TEH	TEC	.610	RBAL2	74	C	
47	112	.33	151	DSI	7	P1	VS3	.81			TEH	TEC	.610	RBAL2	74	C	
47	112	.89	83	PCT	17	P3	VS3	-.79			VS3	VS3	.580	ZPUFZ	83	H	
44	113	.51	129	DSI	18	P1	VS3	-.73			TEH	TEC	.610	RBAL2	73	C	
44	113	1.03	84	PCT	19	P3	VS3	-.73			VS3	VS3	.580	ZPUFZ	83	H	
44	115	.24	129	DSI	10	P1	VS3	.79			TEH	TEC	.610	RBAL2	75	C	
44	115	.52	81	PCT	10	P3	VS3	.79			VS3	VS3	.580	ZPUFZ	83	H	
65	118	.38	150	DSI	9	P1	BW1	.81			TEC	TEH	.610	RBAL2	22	H	
65	118	.51	71	PCT	11	P3	BW1	.87			09H	VS2	.580	ZPUFZ	75	H	
36	119	.32	133	DSI	14	P1	VS3	-.81			TEH	TEC	.610	ZBAU2	42	C	DQA
36	119	.59	81	PCT	12	P3	VS3	-.81			VS3	VS3	.580	ZPUFZ	83	H	
47	120	.52	143	DSI	17	P1	VS3	-.85			TEC	TEH	.610	RBAL2	61	H	
47	120	1.03	82	PCT	19	P3	VS3	-.85			VS3	VS3	.580	ZPUFZ	83	H	
38	121	.25	104	DSI	11	P1	VS3	-.73			TEH	TEC	.610	RBAL2	60	C	
38	121	.73	86	PCT	14	P3	VS3	-.73			VS3	VS3	.580	ZPUFZ	83	H	
40	123	.40	145	DSI	11	P1	VS3	-.82			TEC	TEH	.610	RBAL2	60	H	
55	128	.18	134	DSI	7	P1	VS3	-.73			TEC	TEH	.610	RBAL2	61	H	
161	132	.37	131	DSI	12	P1	VS1	.88			TEC	TEH	.610	RBAL2	52	H	
161	132	.74	79	PCT	14	P3	VS1	.88			VS1	VS1	.580	ZPUFZ	83	H	
111	142	.21	116	SVI		2	TSH	-1.06		.30	TSH	TSH	.600	ZPSHZ	74	H	NC
111	142																PIT
32	151	.46	26	DSI	10	P1	VS3	-.72			TEH	TEC	.610	RBAL2	60	C	
71	180	.51	157	DSI	10	P1	VS2	.76			TEH	TEC	.610	RBAL2	77	C	
28	189	.50	163	DSI	12	P1	VS3	-.74			TEH	TEC	.610	RBAL2	49	C	
47	190	.51	155	DSI	12	P1	VS3	.79			TEH	TEC	.610	RBAL2	75	C	
54	191	.30	145	DSI	11	P1	VS3	-.99			TEH	TEC	.610	RBAL2	75	C	

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | COM |

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	COM
45	194	.49	155	DSI	10	P1	VS3	.85			TEH	TEC	.610	RBAL2	74	C	
45	196	.33	146	DSI	9	P1	VS3	.75			TEH	TEC	.610	RBAL2	74	C	
58	197	.22	49	DSI	11	P1	VS3	-.81			TEH	TEC	.610	RBAL2	75	C	
46	199	.15	112	DSI	8	P1	VS3	-.81			TEH	TEC	.610	RBAL2	75	C	
41	200	1.36	169	DSI	13	P1	VS3	.55			TEH	TEC	.610	RBAL2	74	C	
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	COM

Tubes: 57 Records: 94

APPENDIX D

STEAM GENERATOR 22

SUMMARY DATA SHEETS

SG - 22 Percent Indications and SVI's

Palo Verde 2 U2R12 PVNGS2 20050401 04/18/2005 07:50:44

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	COM
79	20	.19	109	SVI		2	TSH	-1.07		.30	TSH	TSH	.600	ZPSHZ	72	H	NC
79	20																PIT
51	34	.27	123	DSI	12	P1	VS3	.84			TEH	TEC	.610	RBAL2	73	C	
122	35	.32	139	DSI	11	P1	VS3	.80			TEH	TEC	.610	RBAL2	69	C	
128	35	.30	143	DSI	10	P1	BW1	-.73			TEH	TEC	.610	RBAL2	69	C	
128	35	.42	152	DSI	10	P1	VS4	.81			TEH	TEC	.610	RBAL2	69	C	
123	36	.29	135	DSI	13	P1	VS1	1.01			TEH	TEC	.610	RBAL2	70	C	
125	38	.18	83	DSI	9	P1	BW1	.78			TEH	TEC	.610	RBAL2	69	C	
130	39	.65	158	DSI	12	P1	VS1	-.76			TEH	TEC	.610	RBAL2	69	C	
130	39	.54	158	DSI	10	P1	VS2	.80			TEH	TEC	.610	RBAL2	69	C	
125	42	.31	141	DSI	10	P1	VS3	.79			TEH	TEC	.610	RBAL2	69	C	
45	46	.23	135	DSI	9	P1	VS3	.90			TEH	TEC	.610	RBAL2	67	C	
52	55	.72	168	DSI	15	P1	VS3	-.78			TEH	TEC	.610	RBAL2	70	C	
113	56	.21	122	DSI	13	P1	VS3	-.88			TEC	TEH	.610	RBAL2	25	H	
113	56	.52	96	PCT	9	P3	VS3	-.84			VS3	VS3	.580	ZPUFZ	71	H	
118	57	.36	129	DSI	9	P1	VS2	.94			TEC	TEH	.610	RBAL2	24	H	
43	58	.33	142	DSI	10	P1	VS3	.79			TEH	TEC	.610	RBAL2	67	C	
129	60	.16	120	DSI	10	P1	VS3	.61			TEC	TEH	.610	RBAL2	25	H	
129	60	.53	67	PCT	9	P3	VS3	.71			VS3	VS3	.580	ZPUFZ	71	H	
81	62	.13	58	DSI	8	P1	BW1	.71			TEC	TEH	.610	RBAL2	12	H	
83	64	.10	77	DSI	7	P1	BW1	.62			TEC	TEH	.610	RBAL2	12	H	
114	69	.59	115	SVI		2	VS1	17.37		.40	BW1	VS2	.580	ZPUFZ	88	H	MIG
114	69																PID
138	69	.13	85	DSI	9	P1	VS1	-.80			TEC	TEH	.610	RBAL2	29	H	
21	76	.89	90	PCT	14	P3	BW1	-1.06			08H	VS3	.580	ZPUFZ	78	H	
21	76	.57	142	DSI	20	P1	BW1	-1.06			TEH	TEC	.610	RBAL2	78	C	
30	79	.43	148	DSI	14	P1	VS3	-.66			TEH	TEC	.610	RBAL2	78	C	
29	80	1.24	106	DSI	34	P1	BW1	-.99			TEH	TEC	.610	RBAL2	77	C	
29	80	2.45	75	PCT	32	P3	BW1	-.99			08H	VS3	.580	ZPUFZ	78	H	
29	80	.82	72	PCT	13	P3	BW1	.76			08H	VS3	.580	ZPUFZ	78	H	
90	81	.28	137	DSI	8	P1	VS3	-.79			TEC	TEH	.610	RBAL2	15	H	
90	81	.58	79	PCT	9	P3	VS3	-.79			VS3	VS3	.580	ZPUFZ	69	H	DQA
38	85	.44	141	DSI	17	P1	VS3	.80			TEH	TEC	.610	RBAL2	78	C	
38	85	.82	64	PCT	14	P3	VS3	.67			08C	VS3	.580	ZPUFZ	90	C	
47	86	.15	72	DSI	9	P1	VS3	-1.01			TEC	TEH	.610	RBAL2	18	H	
47	86	.71	84	PCT	11	P3	VS3	-1.22			VS3	VS3	.580	ZPUFZ	69	H	
48	89	.47	145	DSI	14	P1	BW1	.51			TEC	TEH	.610	RBAL2	39	H	
48	89	.50	109	PCT	8	P3	BW1	.74			BW1	VS3	.580	ZPUFZ	69	H	
41	90	.33	130	DSI	8	P1	BW1	-.84			TEC	TEH	.610	RBAL2	38	H	
41	90	.73	156	DSI	13	P1	BW1	.81			TEC	TEH	.610	RBAL2	38	H	
41	90	.63	57	PCT	10	P3	BW1	-.89			08H	VS3	.580	ZPUFZ	69	H	
41	90	1.02	82	PCT	15	P3	BW1	.79			08H	VS3	.580	ZPUFZ	69	H	
42	91	.54	32	DSI	9	P1	BW1	-.92			TEC	TEH	.610	RBAL2	38	H	
42	91	.69	105	PCT	11	P3	BW1	-.85			08H	VS3	.580	ZPUFZ	69	H	
48	91	1.22	88	DSI	38	P1	BW1	.68			TEC	TEH	.610	RBAL2	39	H	

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | COM |

SG - 22 Percent Indications and SVI's

Palo Verde 2 U2R12 PVNGS2 20050401 04/18/2005 07:50:44

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	COM
48	91	2.91	79	PCT	35	P3	BW1	.75			BW1	VS3	.580	ZPUFZ	69	H	
43	92	1.14	121	DSI	24	P1	BW1	-.84			TEC	TEH	.610	RBAL2	38	H	
43	92	1.50	86	PCT	21	P3	BW1	-.84			08H	VS3	.580	ZPUFZ	69	H	
49	94	.31	117	DSI	9	P1	BW1	.73			TEC	TEH	.610	RBAL2	38	H	
49	94	.60	111	PCT	9	P3	BW1	.88			BW1	VS3	.580	ZPUFZ	69	H	
48	97	.27	57	DSI	14	P1	VS3	.96			TEC	TEH	.610	RBAL2	39	H	
48	97	.78	77	PCT	12	P3	VS3	.94			VS3	VS3	.580	ZPUFZ	69	H	
48	101	.26	92	DSI	15	P1	VS3	.89			TEC	TEH	.610	RBAL2	39	H	
48	101	.83	91	PCT	14	P3	VS3	.79			VS3	VS3	.580	ZPUFZ	67	H	
49	102	.41	152	DSI	7	P1	BW1	-.74			TEC	TEH	.610	RBAL2	38	H	
90	103	.97	154	DSI	17	P1	BW2	.82			TEC	TEH	.610	ZBAU2	7	H	
47	104	.33	99	DSI	10	P1	BW1	-.86			TEC	TEH	.610	RBAL2	38	H	
47	104	.54	124	DSI	13	P1	BW1	.79			TEC	TEH	.610	RBAL2	38	H	
47	104	.52	56	PCT	9	P3	BW1	-.82			08H	VS3	.580	ZPUFZ	67	H	
47	104	.85	94	PCT	14	P3	BW1	.78			08H	VS3	.580	ZPUFZ	67	H	
48	107	.33	140	DSI	13	P1	VS3	.85			TEC	TEH	.610	RBAL2	39	H	
48	107	.71	102	PCT	12	P3	VS3	.85			VS3	VS3	.580	ZPUFZ	67	H	
71	110	.72	109	DSI	20	P1	BW2	.97			TEC	TEH	.610	ZBAU2	7	H	
75	110	.71	136	DSI	17	P1	BW2	.72			TEC	TEH	.610	ZBAU2	7	H	
44	111	1.52	103	DSI	40	P1	BW1	-.96			TEC	TEH	.610	RBAL2	18	H	
44	111	.40	155	DSI	13	P1	BW1	-.71			TEC	TEH	.610	RBAL2	18	H	
44	111	3.01	75	PCT	37	P3	BW1	-.89			08H	VS3	.580	ZPUFZ	67	H	
43	112	.51	136	DSI	18	P1	BW1	-.86			TEC	TEH	.610	RBAL2	18	H	
43	112	.81	91	PCT	13	P3	BW1	-.62			08H	VS3	.580	ZPUFZ	67	H	
45	116	.30	117	DSI	10	P1	BW1	-.88			TEC	TEH	.610	RBAL2	15	H	
45	116	.78	67	PCT	13	P3	BW1	-1.24			08H	VS3	.580	ZPUFZ	63	H	DQA
40	117	.42	146	DSI	9	P1	VS3	.85			TEC	TEH	.610	RBAL2	15	H	
40	117	.65	65	PCT	11	P3	VS3	1.17			VS3	VS3	.580	ZPUFZ	63	H	DQA
42	117	.48	135	DSI	18	P1	VS3	.81			TEC	TEH	.610	RBAL2	16	H	
42	117	.93	59	PCT	15	P3	VS3	.81			VS3	VS3	.580	ZPUFZ	63	H	DQA
84	119	.13	122	DSI	6	P1	VS2	.70			TEC	TEH	.610	RBAL2	20	H	
44	131	.24	131	DSI	9	P1	VS3	-.75			TEH	TEC	.610	RBAL2	57	C	
130	141	.86	164	DSI	13	P1	VS1	.87			TEH	TEC	.610	RBAL2	67	C	
88	143	.36	139	DSI	11	P1	VS4	.83			TEH	TEC	.610	RBAL2	57	C	
94	143	.41	156	DSI	9	P1	VS2	.84			TEH	TEC	.610	RBAL2	57	C	
134	143	.55	157	DSI	12	P1	VS1	-.87			TEH	TEC	.610	RBAL2	67	C	
127	144	.25	132	DSI	9	P1	VS1	-.75			TEH	TEC	.610	RBAL2	67	C	
127	144	.32	144	DSI	10	P1	VS4	.83			TEH	TEC	.610	RBAL2	67	C	
127	144	.40	148	DSI	10	P1	VS5	.66			TEH	TEC	.610	RBAL2	67	C	
79	148	.65	155	DSI	12	P1	VS2	.88			TEH	TEC	.610	RBAL2	57	C	
74	151	.08	46	SVI		2	05C	24.87		.15	05C	06C	.600	ZPSHZ	4	C	LAP
74	151																NC
81	162	.54	155	DSI	11	P1	VS2	.81			TEH	TEC	.610	RBAL2	57	C	
113	178	.13	83	SVI		2	BW1	15.74		.20	10H	VS2	.580	ZPUFZ	82	H	DQA
113	178																LAP
113	178																NC

| ROW | COL | VOLTS | DEG | IND | PER | CHN | LOCN | INCH1 | INCH2 | CRLEN | BEGT | ENDT | PDIA | PTYPE | CAL | L | COM |

Tubes: 54 Records: 86

APPENDIX E

PLI & PLP

DATA SHEETS

Palo Verde 2 U2R12 PVNGS2 20050401 04/19/2005 12:26:51

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	COM
86	15	1.28	83	PLP		6	01C	1.40			TSC	01C	.600	ZPSHZ	20	C	SR
87	16	1.48	85	PLP		6	01C	1.30			TSC	01C	.600	ZPSHZ	20	C	SR
6	21	1.58	80	PLP		6	TSH	2.03			TSH	TSH	.600	ZPSHZ	88	H	SR
5	22	.93	77	PLP		6	TSH	2.12			TSH	TSH	.600	ZPSHZ	88	H	SR
38	79	1.86	84	PLP		6	TSH	5.76			TSH	01H	.600	ZPSHZ	76	H	SR
39	80	1.35	79	PLP		6	TSH	5.82			TSH	01H	.600	ZPSHZ	76	H	SR
96	103	1.24	84	PLP		6	TSH	.13			TSH	01H	.600	ZPSHZ	72	H	SR
98	103	.88	91	PLP		6	TSH	.10			TSH	TSH	.600	ZPAHZ	92	H	SR
157	142	.84	67	PLP		6	07H	27.26			07H	08H	.600	ZPSHZ	72	H	SR
145	152	.99	76	PLP		6	02C	18.43			02C	03C	.600	ZPSHZ	1	C	SR
146	153	.45	82	PLP		6	02C	18.91			02C	03C	.600	ZPSHZ	1	C	SR
145	154	.61	71	PLP		6	02C	18.29			02C	03C	.600	ZPSHZ	1	C	SR
4	175	.79	80	PLP		6	TSH	1.04			TSH	TSH	.600	ZPSHZ	81	H	SR
3	176	1.78	84	PLP		6	TSH	.32			TSH	TSH	.600	ZPAHZ	92	H	SR
90	187	.96	96	PLP		6	TSC	.06			TSC	01C	.600	ZPSHZ	1	C	SR
89	188	1.74	99	PLP		6	TSC	.16			TSC	01C	.600	ZPSHZ	1	C	DQA
89	188																SR
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	COM

Tubes: 16 Records: 16

Palo Verde 2 U2R12 PVNGS2 20050401 04/19/2005 12:28:21

ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	COM
51	104	1.85	89	PLP		6	FDP	.80			FDP	01C	.600	ZPSHZ	1	C	SR
52	105	1.80	81	PLP		6	FDP	.80			FDP	01C	.600	ZPSHZ	1	C	SR
34	125	1.14	92	PLP		6	FDP	.89			FDP	01C	.600	ZPSHZ	11	C	SR
36	125	1.58	89	PLP		6	FDP	.60			FDP	01C	.600	ZPSHZ	11	C	SR
35	126	1.63	89	PLP		6	FDP	10.01			FDP	01C	.600	ZPSHZ	11	C	SR
1	176	1.50	95	PLP		6	TSC	.11			TSC	01C	.600	ZPSHZ	4	C	SR
8	199	1.92	82	PLP		6	02C	.84			02C	02C	.600	ZPSHZ	5	C	SR
7	200	1.82	86	PLP		6	02C	.21			02C	02C	.600	ZPSHZ	5	C	SR
ROW	COL	VOLTS	DEG	IND	PER	CHN	LOCN	INCH1	INCH2	CRLEN	BEGT	ENDT	PDIA	PTYPE	CAL	L	COM

Tubes: 8 Records: 8

APPENDIX F

PLUG HISTORY

and

TUBE PLUG MAPS

PLUG HISTORY

	STEAM GENERATOR 21		STEAM GENERATOR 22	
OUTAGE/YEAR	**NUMBER OF PLUGS**	**% BOBBIN EXAMINED**	**NUMBER OF PLUGS**	**% BOBBIN EXAMINED**
FACTORY 2002	0	NA	1	NA
BASELINE 2-03	10	100	12	100
U2M12	1	<1%	0	0
U2R12	8	100	7	100
TOTAL	**19**		**20**	

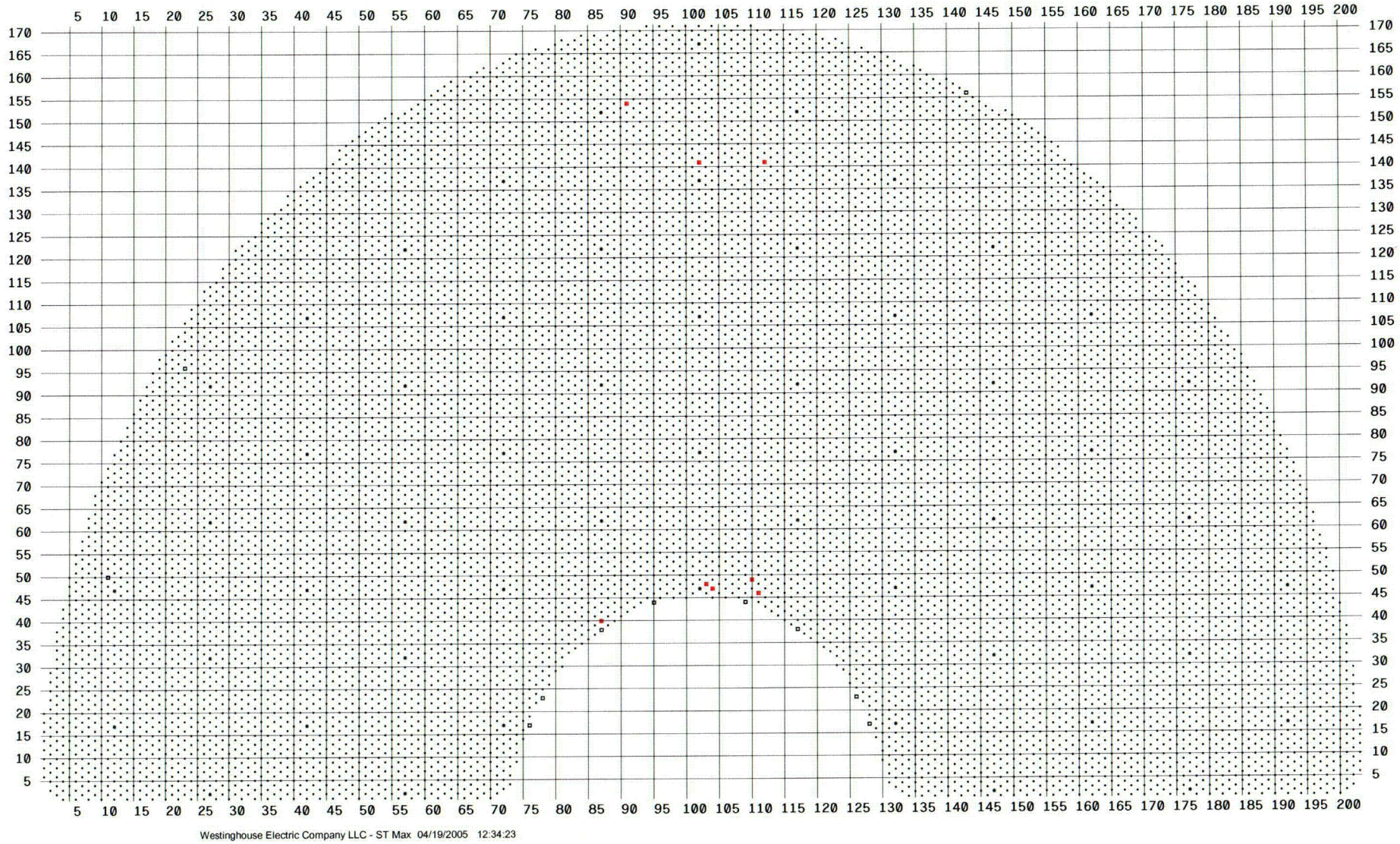
SG - 21 Tubes to be Plugged Based on U2R12 Eddy Current Results

Palo Verde U2R12 PVNGS2 2RSG

■ 8 Tube to be Plugged

□ 11 Plugged Tube

* 53 Stay Rod



Westinghouse Electric Company LLC - ST Max 04/19/2005 12:34:23

C02

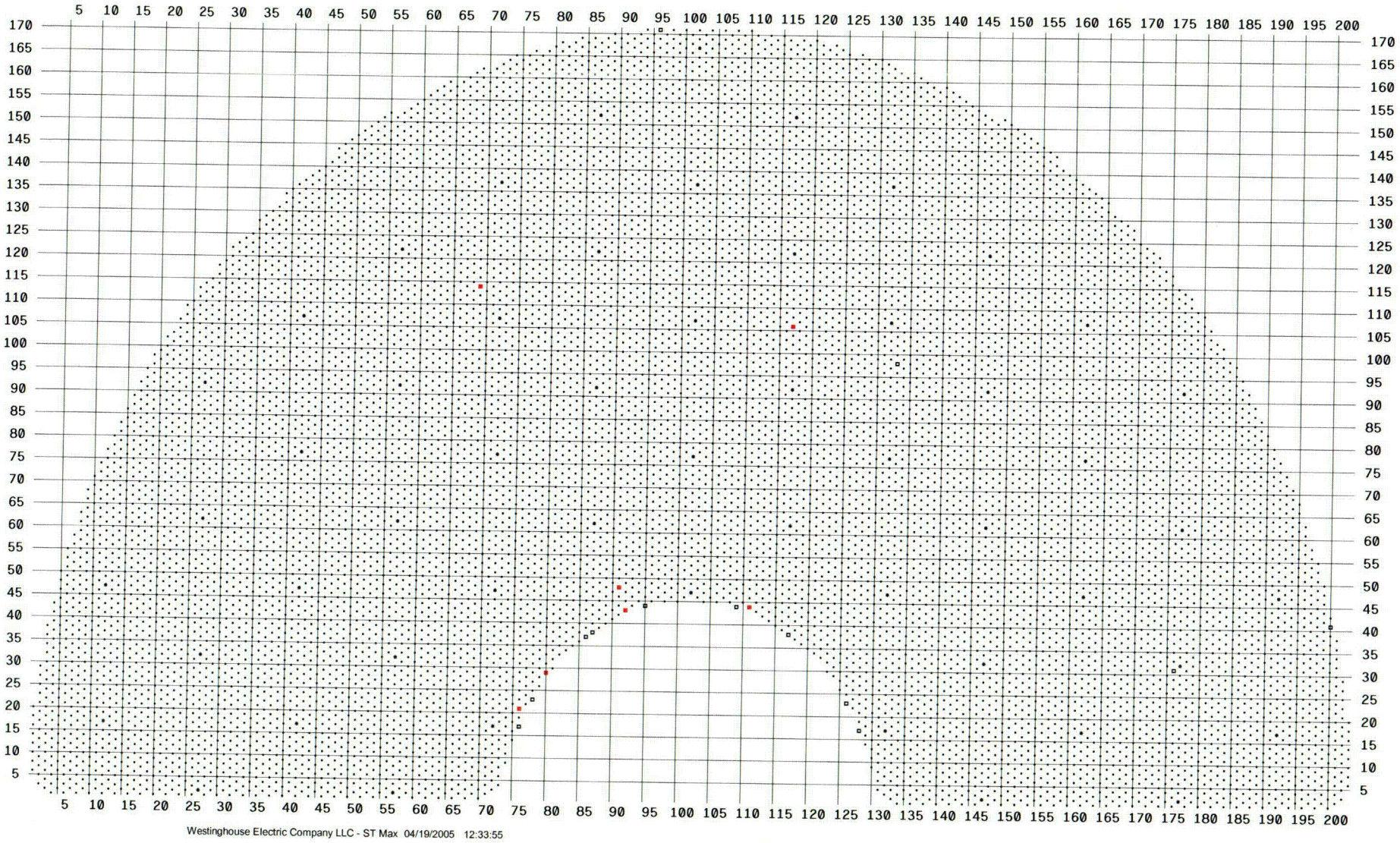
SG - 22 Tubes to be Plugged Based on U2R12 Eddy Current Results

Palo Verde U2R12 PVNGS2 2RSG

■ 7 Tube to be Plugged

* 53 Stay Rod

▫ 13 Plugged Tube



C03

APPENDIX G

FORM NIS-1

APS	NIS – 1 FORM OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS
1. OWNER	ARIZONA PUBLIC SERVICE COMPANY, et al
1a. ADDRESS	P. O. BOX 52034; PHOENIX, ARIZONA 85072
2. PLANT	PALO VERDE NUCLEAR GENERATING STATION
2a. ADDRESS	5801 SOUTH WINTERSBURG ROAD, TONOPAH, ARIZONA 85354
3. UNIT NUMBER	2
4. OWNERS CERTIFICATE OF AUTHORIZATION	NONE
5. COMMERCIAL SERVICE DATE	9-19-86
6. COMPONENTS INSPECTED:	

COMPONENT OR APPURTENANCE	MANUFACTURER OR INSTALLER	SERIAL NUMBER	STATE OR PROVINCE	NATIONAL BOARD NO
2MRCEE01A STEAM GENERATOR 21	Ansaldo	212	NA	161
2MRCEE01B STEAM GENERATOR 22	Ansaldo	211	NA	160

APS	NIS – 1 BACK OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

7. EXAM DATES	April 2005
8. INSPECTION INTERVAL	April 2005

9. ABSTRACT OF EXAMINATIONS. INCLUDE A LIST OF EXAMINATIONS AND A STATEMENT CONCERNING STATUS OF WORK REQUIRED FOR CURRENT INTERVAL.

Table 1 in the report summary section documents the number and type of each examination performed.

Several degraded/defective tubes were observed during these examinations. A summary of the tubes with indications of degradation is listed in Appendix C and D of this report for SG 21 and 22 respectively. The tubes identified on the following pages were plugged as a result of this examination.

The number of tubes plugged are as follows: SG 21 = 8 tubes

SG 22 = 7 tubes

WE CERTIFY THAT THE STATEMENTS MADE IN THIS REPORT ARE CORRECT AND THE EXAMINATIONS AND CORRECTIVE MEASURES TAKEN CONFORM TO THE RULES OF THE ASME CODE, SECTION XI.

DATE 4-21-05 SIGNED: ARIZONA PUBLIC SERVICE COMPANY BY _____

CERTIFICATE OF INSERVICE INSPECTION

I, THE UNDERSIGNED, HOLDING A VALID COMMISSION ISSUED BY THE NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS AND THE STATE OF PROVINCE OF ARIZONA EMPLOYED BY HSB CT OF HARTFORD, CONNECTICUT HAVE INSPECTED THE COMPONENTS DESCRIBED IN THIS OWNERS REPORT DURING THE PERIOD April 1, 2005 TO June 14, 2005, AND STATE THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE OWNER HAS PERFORMED EXAMINATIONS AND TAKEN CORRECTIVE MEASURES DESCRIBED IN THIS OWNERS REPORT IN ACCORDANCE WITH THE REQUIREMENTS OF THE ASME CODE, SECTION XI. BY SIGNING THIS CERTIFICATE NEITHER THE INSPECTOR NOR HIS EMPLOYER MAKES ANY WARRANTY, EXPRESSED OR IMPLIED, CONCERNING THE EXAMINATIONS AND CORRECTIVE MEASURES DESCRIBED IN THIS OWNERS REPORT. FURTHERMORE, NEITHER THE INSPECTOR NOR HIS EMPLOYER SHALL BE LIABLE IN ANY MANNER FOR ANY PERSONAL INJURY OR PROPERTY DAMAGE OR A LOSS OF ANY KIND ARISING FROM OR CONNECTED WITH THIS INSPECTION.

INSPECTOR _____ COMMISSIONS NB 9685 "A,N,I,C" Az 264
NATL' BOARD, STATE, PROVINCE

DATE June 14, 2005

APS	NIS – 1 FORM OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS
1. OWNER	ARIZONA PUBLIC SERVICE COMPANY, et al
1a. ADDRESS	P. O. BOX 52034; PHOENIX, ARIZONA 85072
2. PLANT	PALO VERDE NUCLEAR GENERATING STATION
2a. ADDRESS	5801 SOUTH WINTERSBURG ROAD, TONOPAH, ARIZONA 85354
3. UNIT NUMBER	2
4. OWNERS CERTIFICATE OF AUTHORIZATION	NONE
5. COMMERCIAL SERVICE DATE	9-19-86

SG 21 Tubes Plugged	SG 22 Tubes Plugged
R40 C87	R114 C69
R46 C111	R21 C76
R47 C104	R29 C80
R48 C103	R48 C91
R49 C110	R43 C92
R141 C102	R44 C111
R141 C112	R106 C117
R154 C91	