



Crystal River Nuclear Plant
Docket No. 50-302
Operating License No. DPR-72

Ref: 10 CFR 50.36

January 27, 2004
3F0104-03

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

Subject: Crystal River Unit 3 - Special Report 04-01: Results of the Once-Through Steam Generator Tube Inservice Inspection Conducted During Refueling Outage 13

References: 1. PEF to NRC letter, 3F1003-07, dated October 31, 2003, Crystal River Unit 3 – Special Report 03-01: Once Through Steam Generator (OTSG) Notifications Required Prior to MODE 4

2. FPC to NRC letter, 3F0601-07, dated June 28, 2001, Crystal River Unit 3 – Contingency Letter of Commitment Regarding License Amendment Request #252, Revision 0, Once Through Steam Generator Tube Surveillance Program, Tube Repair Roll (Re-Roll) Process (TAC No. MB1519)

Dear Sir:

Florida Power Corporation, doing business as Progress Energy Florida, Inc. (PEF), hereby submits Special Report 04-01: Results of the Once-Through Steam Generator Tube Inservice Inspection Conducted During Refueling Outage 13. This submittal fulfills the requirements of Improved Technical Specification (ITS) 5.7.2.e, which requires submittal of the report to the NRC within 90 days following output breaker closure. Breaker closure for Crystal River Unit 3 (CR-3) was achieved on November 5, 2003.

As required by ITS 5.7.2.e, Special Report 04-01 (Attachment) contains the following information:

1. Number and extent of tubes inspected,
2. Location and percent of wall-thickness penetration for each indication of an imperfection,
3. Location, bobbin coil amplitude, and axial and circumferential extent (if determined) for each first span IGA (Intergranular Attack) indication, and
4. Identification of tubes plugged or repaired and specification of the repair methodology implemented for each tube.

Special Report 04-01 also provides information to fulfill a commitment made in Reference 2 to provide a summary of the evaluation performed to calculate a best-estimate of the leakage expected due to a Large Break Loss-of-Coolant Accident (LBLOCA).

This letter establishes no new regulatory commitments.

If you have any questions regarding this submittal, please contact Mr. Sid Powell, Supervisor, Licensing and Regulatory Programs at (352) 563-4883.

Sincerely,



Michael J. Annacone
Engineering Manager

MJA/lvc

Attachment:

Special Report 04-01: Results of the Once-Through Steam Generator Tube Inservice
Inspection Conducted During Refueling Outage 13

xc: NRR Project Manager
Regional Administrator, Region II
Senior Resident Inspector

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50-302/LICENSE NUMBER DPR-72

ATTACHMENT

SPECIAL REPORT 04-01:

**RESULTS OF THE
ONCE-THROUGH STEAM GENERATOR
TUBE INSERVICE INSPECTION CONDUCTED
DURING REFUELING OUTAGE 13**

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SPECIAL REPORT 04-01

RESULTS OF THE ONCE-THROUGH STEAM GENERATOR TUBE INSERVICE INSPECTION CONDUCTED DURING REFUELING OUTAGE 13

Introduction

Inservice inspection (ISI) of the Crystal River Unit 3 (CR-3) Once-Through Steam Generator (OTSG) tubes was performed during Refueling Outage 13 (13R), October 4 through November 5, 2003. In accordance with Improved Technical Specifications (ITS) Section 5.7, Reporting Requirements, Progress Energy is submitting Special Report 04-01. A diagram of an OTSG is attached in Figure 1.

ITS Section 5.7.2.e states:

The complete results of the OTSG tube inservice inspection shall be submitted to the NRC within 90 days after breaker closure following restart. The report shall include:

- 1. Number and extent of tubes inspected,*
- 2. Location and percent of wall-thickness penetration for each indication of an imperfection,*
- 3. Location, bobbin coil amplitude, and axial and circumferential extent (if determined) for each first span IGA indication, and*
- 4. Identification of tubes plugged or repaired and specification of the repair methodology implemented for each tube.*

The following information is presented to satisfy ITS Section 5.7.2.e requirements:

1. Number and extent of tubes inspected

The eddy current testing (ECT) inspection plan and selection of techniques for the OTSG tubes were designed to detect specific degradation mechanisms for each area of the OTSG. The ISI of the OTSG tubes during 13R satisfies the requirements of ITS Section 5.6.2.10. The EPRI PWR Steam Generator Examination Guidelines, Revision 6, Appendix H, describe the performance demonstration requirements for ECT techniques used for the examination of steam generator tubing and repairs. These criteria were used as the basis for determination of technique qualification.

A review of the qualified technique's essential variables was performed to ensure the application of any qualified technique was applicable to the site-specific conditions and is in compliance with 10 CFR 50, Appendix B, Criteria IX, Control of Special Processes, for qualified nondestructive examination (NDE) techniques. The ECT techniques used at CR-3 during the 13R inspection were adequate for the detection and sizing (where applicable) of the damage mechanisms that are both active and a potential for the OTSGs.

A technique is a category within an NDE method that describes the examination system, inspection requirements and detection capabilities for specific flaw types in sufficient detail to ensure consistent implementation with adequate confidence. Two ECT

techniques were used to inspect the OTSG tubes as detailed below. ECT techniques are based on the type of probe used for the inspection; bobbin or motorized rotating pancake coil (MRPC).

The bobbin coil was used to examine 100% of the tubes in-service over the entire length of the tube, to the extent practical, in both OTSGs (15,314 tubes in OTSG-A, 14,801 in OTSG-B). Indications identified using bobbin were further characterized using MRPC (containing 0.115 inch pancake coil and a +Point coil). MRPC is qualified to detect primary water stress corrosion cracking (PWSCC) in the tubesheet regions, intergranular attack (IGA), and outside diameter stress corrosion cracking (ODSCC) in the lower tubesheet (LTS) crevice region and sleeved tubes.

MRPC was used to examine the following specific areas in both steam generators:

- 100% upper and lower tube roll transition area
- 34% LTS Crevice in the kidney region
- 34% Tubes in the Lane and Wedge region [upper tubesheet (UTS) and 15th Support Plate]
- 34% Sleeved Tubes
- 34% Dents identified as of the last inspection
- 100% of Inconel 600 Plugs
- Further characterization of indications identified by the bobbin coil exam
- 100% of the tubes in B OTSG identified with 1st Span IGA

Inspection Summary

The bobbin coil inspection resulted in the A and B OTSG being classified with Category C-2 inspection results in accordance with ITS 5.6.2.10. Specific areas inspected with MRPC were calculated independently for categorization to identify if further actions were necessary to determine the extent of degradation. The only expansion sample required was in the lower tubesheet roll transition area based on the discovery of lower tube end indications.

The upper tubesheet (UTS) roll area was identified as a Specific Limited Area (SLA), as defined in the ITS, Section 5.6.2.10.2.d, during the 1997 inspection.

The portion of tube within the clad region in both UTS and LTS were identified as a Specific Limited Area for 13R, as defined in ITS, Section 5.6.2.10.2.d, based on the physical construction of the tube end adjacent to the seal weld heat affected zone. The degradation mechanism is PWSCC since the indications appear to be inside diameter initiated and is unique to that area and not random in nature. Absolute determination of the degradation mechanism can only be determined by destructive examination (tube pulls). However, since the indications are near the tube ends, the method of destructive examination would likely corrupt the tube sample.

Therefore, 100% of the tubes in service in the upper and lower tubesheets must be inspected with RPC each ISI from the tube end as follows: Upper Tube End (UTE) to UTE minus 3 inches and Lower Tube End (LTE) to LTE plus 3 inches. The calculation

for the overall categorization of the OTSG inspection results did not include the Specific Limited Areas, as specified in ITS Section 5.6.2.10.2.d.

Table 1

OTSG-A Examination	Tubes Examined	Number Degraded	Number Defective
Bobbin Examination (Special Interest, Through-Wall Degradation (TWD) $\geq 20\%$ - $\leq 39\%$, TWD $\geq 40\%$)	15,314	31	6
New Upper Tube End Anomalies [Single Axial Tube End Anomaly (SAA), Multiple Axial Tube End Anomaly (MAA)]	15,151	0	297*
Upper Tubesheet Roll Area Specific Limited Area Indications [Single Axial Indication (SAI), Multiple Axial Indication (MAI), Single Circumferential Indication (SCI), Multiple Circumferential Indication (MCI), Single Volumetric Indication (SVI), Multiple Volumetric Indication (MVI)]	15,151	0	37*
Lower Tubesheet Crevice Region	2,054	0	0
Lower Tube End Anomalies (SAA, MAA)	15,314	0	4*
Lower Tube End Specific Limited Area Indications (SAI, MAI, SCI, MCI, SVI, MVI)	15,314	0	180*
Total	15,314	31	6
Inspection Results Category		C-2	

* Consistent with ITS Section 5.6.2.10.2.d, this total was not included for overall categorization of the OTSG for Specific Limited Area.

Table 2

OTSG-B Examination	Tubes Examined	Number Degraded	Number Defective
Bobbin Examination (Special Interest, TWD $\geq 20\%$ - $\leq 39\%$, TWD $\geq 40\%$)	14,801	24	6
New Upper Tube End Anomalies (SAA, MAA)	14,642	0	237*
Upper Tube Sheet Roll Area Specific Limited Area Indications (SAI, MAI, SCI, MCI, SVI, MVI)	14,642	0	87*
Lower Tube Sheet Crevice Region	1,387	0	0
Lower Tube End Anomalies (SAA, MAA)	14,801	0	108*
Lower Tube End Specific Limited Area Indications (SAI, MAI, SCI, MCI, SVI, MVI)	14,801	0	11*
First Span IGA (LTS to 1 st Support Plate)	178	175**	8
Total	14,801	24	14
Inspection Results Category		C-2	

* Consistent with ITS Section 5.6.2.10.2.d, this total was not included for overall categorization of the OTSG for Specific Limited area.

** Consistent with ITS 5.6.2.10.2.e, this total was not included for overall categorization of the OTSG

2. Location and percent of wall-thickness penetration for each indication of an imperfection

Percent TWD is only assigned to tube support plate wear indications and OTSG-B first span IGA indications. A complete list of inspection results for in-service tubes with indications 1% to 39% through-wall in OTSG-A and OTSG-B is provided in Appendix 1

of this Attachment. A complete listing of tubes with first span IGA indications in OTSG-B is provided in Appendix 2.

3. *Location, bobbin coil amplitude, and axial and circumferential extent (if determined for each first span IGA indication)*

First span IGA is a degradation mechanism specific to OTSG-B. Prior to the 2003 inspection, there were 175 known tubes with first span IGA in service. As a result of this inspection, eight (8) tubes from this population were plugged. Of these eight tubes, five (5) tubes were plugged based on growth greater than 10% through-wall dimension, two (2) were plugged for indications equal to or greater than 40% through-wall dimension, and one (1) was plugged because it did not meet the regression criteria. There are a total of 167 tubes in OTSG-B remaining in-service with first span IGA. Appendix 2 contains the list of tubes in OTSG-B with first span IGA.

CR-3 is also providing additional information regarding first span IGA in OTSG-B in Appendix 6. The additional information includes the axial distribution, percent through-wall (TW) distribution, and percent TW growth distribution of first span IGA in OTSG-B.

4. *Identification of tubes plugged or repaired and specification of the repair methodology implemented for each tube*

Tubes identified with unacceptable indications were plugged by using an Alloy 690 plug rolled into both ends of the tube. A complete list of plugged tubes in OTSG-A and OTSG-B is provided in Appendix 3.

Tubes with unacceptable indications in the UTS and LTS were repaired using a repair roll (re-roll) as described in ITS Section 5.6.2.10.11.b. A complete list of tubes repaired (in-service) by the re-roll method in OTSG-A and OTSG-B is provided in Appendix 4.

No tubes were sleeved during the 2003 OTSG inspection.

Tubes with axially oriented tube end cracks (TEC) within the Inconel clad region of the primary face of the UTS and LTS were left in-service using the method described in Topical Report BAW-2346P, Revision 0, as approved in License Amendment No. 188 issued October 1, 1999. The through-wall extent is conservatively assumed to be 100%. Therefore, a leakage value based on tube sheet radial position has been assigned to each TEC to calculate the potential primary-to-secondary leakage in the event of a design basis accident. Other indications of wall loss or cracking are plugged or repaired on detection and are not assigned a percent wall penetration. A complete list of the tubes remaining in service with TEC is provided in Appendix 5.

Secondary Side Pressure Test

The primary-to-secondary leakage in the OTSGs was less than five (5) gallons-per-day (gpd) prior to shutdown for 13R. Therefore, a secondary-to-primary leakage pressure test was not performed in the OTSGs. The LTS was monitored for tube leakage during ECT with the OTSGs

full (up to the secondary face of the upper tube sheet). No leakage was identified. Primary-to-secondary leakage after 13R is less than two (2) gpd.

In-Situ Pressure Test

During 13R, tubes with indications were evaluated for in-situ pressure and leak testing in accordance with EPRI Report TR-107620-R1, "Steam Generator In-Situ Pressure Test Guidelines," Revision 1. These guidelines utilize sequential screening criteria, i.e., indications that exceed the threshold value for the first screening parameters, are evaluated against the threshold value for the second screening parameter. The screening thresholds (length, depth, and voltage) are reduced to account for uncertainties in the material properties, burst pressure regression parameters, burst pressures relative to the regression, and NDE sizing.

No indications exceeded the screening criteria for in-situ pressure testing. Therefore, no in-situ pressure testing was performed during 13R.

Summary of Best-Estimate Leakage Evaluation Following a Large Break Loss-of-Coolant Accident (LBLOCA)

Following the 13R inspection of the Upper and Lower Tubesheet roll region, the best-estimate leakage following a LBLOCA that could occur from as-found circumferential cracking near the tubesheet rolls has been determined to be 7.41 gpm in OTSG-A and 3.00 gpm in OTSG-B. This estimated leakage has been evaluated and would not exceed the offsite dose limits of 10 CFR 100 and 10 CFR 50.67 when compared to existing assumptions in the FSAR Chapter 14 analysis. The evaluation demonstrates that the primary-to-secondary leakage following a LBLOCA, as described in Appendix A to Topical Report BAW-2374, Revision 1, is acceptable based on the as-found condition of the steam generators.

Condition Monitoring Assessment

The results of the ECT inspection during the 13R OTSG inspection identified the Condition Monitoring (CM) Assessment, relative to leakage integrity, did not meet the performance criteria. The draft CM evaluation concludes that structural requirements were met but the as-found leakage values for Main Steam Line Break exceeded the values projected by the previous inspection (Refueling Outage 12).

The cause for the calculated increased leakage was due to applying a leakage value to the new indications identified in the lower tube ends and to the greater than expected upper tube end cracks.

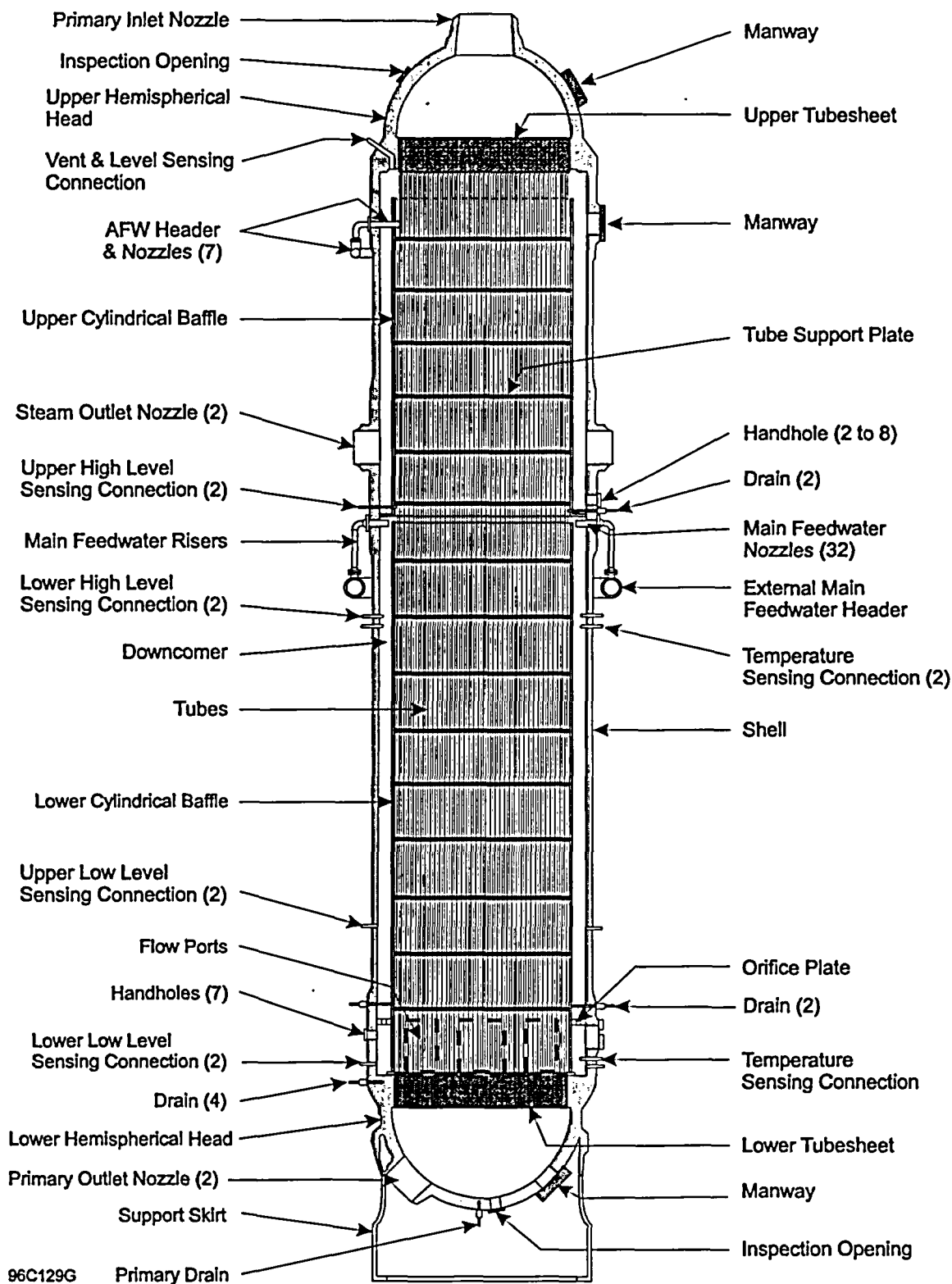
Conclusion

The Operational Assessment (OA) evaluated the degradation mechanisms of the CR-3 OTSG tubes. The evaluation concluded that the tubes would maintain structural integrity with reasonable assurance throughout fuel Cycle 14. This is based on the inspection results and worst-case Monte Carlo type simulations. Additionally, this was the fourth consecutive 100% full length bobbin coil and UTS MRPC inspection of the in-service tubes.

The bobbin coil inspection resulted in Category C-2 as described in ITS 5.6.2.10. The overall classification for the inspection performed was C-2 for both steam generators. The classification of the Specific Limited Areas inspection in both steam generators was C-3. The SLA calculation was not included in the overall categorization of the OTSGs, as previously discussed.

Therefore, based on inspection results and the OA of the structural and leakage integrity of in-service OTSG tubing, the inspection interval between 13R and 14R will be 24 months.

ONCE-THROUGH STEAM GENERATOR



PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50-302/LICENSE NUMBER DPR-72

ATTACHMENT

SPECIAL REPORT 04-01

APPENDIX 1

**TUBES LEFT IN-SERVICE WITH
THROUGH-WALL INDICATIONS
1%-39%**

Appendix Location Acronyms

**LTS – Lower Tubesheet
S – Tube Support Plate**

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
1	11	0.32	0	10	12S	+0.68
		0.36	105	11	12S	+0.68
1	13	0.24	0	8	11S	+0.81
		0.38	138	11	11S	+0.68
2	8	0.8	86	17	12S	+0.66
2	9	0.35	104	10	12S	+0.66
4	28	0.29	0	9	12S	+0.75
		0.33	103	8	12S	+0.66
		0.26	100	7	08S	+0.72
4	34	0.24	72	8	08S	+0.65
5	34	0.52	74	12	12S	+0.68
5	36	0.4	55	13	12S	+0.67
5	41	0.37	87	9	12S	+0.68
5	45	0.41	0	13	08S	+0.66
		0.31	62	8	08S	+0.68
		0.3	91	8	12S	+0.65
6	7	0.33	121	9	12S	+0.69
		0.34	0	10	12S	+0.68
6	10	0.45	93	13	12S	+0.78
6	25	0.48	142	11	09S	+0.62
6	26	0.41	0	10	08S	-0.72
		0.34	0	8	08S	+0.76
		0.59	87	17	09S	+0.52
		0.47	137	15	08S	+0.00
6	39	0.43	0	10	08S	+0.74
		0.21	99	7	08S	+0.72
6	51	0.48	140	15	13S	+0.63
7	21	0.62	110	18	11S	+0.68
7	24	0.64	53	14	07S	-0.75
7	26	0.85	40	18	09S	+0.61
		0.78	66	17	08S	+0.61
		0.81	77	17	08S	-0.68
		0.37	65	9	04S	+0.57
		0.67	14	15	04S	-0.70
7	27	0.49	0	15	09S	-0.57
		0.49	0	11	08S	-0.73
		1.08	0	23	08S	+0.64
		0.45	0	10	09S	+0.62
		0.36	103	11	07S	-0.73
		0.85	88	23	08S	+0.64
		0.32	69	10	08S	-0.71
		0.52	93	16	09S	-0.73
7	44	0.23	120	8	04S	+0.66
7	52	0.41	58	13	10S	+0.65

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
8	21	0.61	96	18	07S	+0.50
8	22	0.31	84	8	07S	+0.57
8	23	0.4	116	12	12S	+0.68
8	25	0.42	0	13	09S	+0.67
		0.45	43	14	09S	+0.59
8	27	0.58	82	17	07S	-0.71
8	28	0.72	0	21	07S	+0.69
		0.96	0	26	09S	+0.58
		0.19	0	6	09S	-0.75
		0.18	0	6	07S	-0.72
		0.85	81	18	09S	+0.68
		0.68	94	15	08S	+0.59
		0.77	69	17	07S	+0.68
		0.34	84	8	07S	-0.72
		0.4	119	10	09S	-0.75
		0.35	94	9	08S	-0.75
8	29	0.54	85	16	07S	-0.71
8	30	0.54	0	12	08S	-0.69
		0.61	0	14	08S	+0.64
		0.38	63	9	07S	+0.63
		0.29	118	7	08S	-0.63
		0.45	63	11	08S	+0.59
		0.56	65	13	07S	-0.57
8	41	0.23	0	7	07S	+0.71
		0.54	30	16	07S	+0.65
8	46	0.28	0	9	07S	+0.73
		0.34	85	9	07S	+0.68
8	51	0.28	0	9	08S	+0.75
		0.36	139	12	12S	+0.65
		0.26	119	9	08S	+0.72
9	24	0.5	0	11	07S	+0.74
		0.32	90	8	07S	+0.70
9	28	0.34	0	8	12S	+0.76
		0.51	35	12	12S	+0.68
9	42	0.24	86	6	08S	+0.68
9	53	0.26	104	7	07S	+0.65
9	55	0.35	0	11	03S	+0.76
		0.29	100	7	03S	+0.76
9	61	0.3	82	8	12S	+0.56
10	6	0.41	90	12	12S	+0.76
10	7	0.18	114	6	07S	-0.70
		0.32	0	9	07S	-0.75
10	8	0.27	91	8	07S	-0.76
		0.5	0	15	07S	-0.70

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
10	51	0.27	0	9	07S	+0.73
		0.19	90	7	07S	+0.67
10	57	0.36	104	12	07S	+0.67
10	58	0.21	0	7	07S	+0.68
		0.27	59	7	07S	+0.68
11	1	0.48	94	14	12S	+0.69
11	2	0.3	0	9	07S	+0.76
		0.18	60	6	08S	+0.78
		0.26	93	8	07S	+0.82
11	7	0.65	86	17	12S	+0.74
11	8	0.26	106	8	07S	-0.67
		0.44	0	13	07S	-0.74
11	11	0.22	107	7	07S	+0.78
11	14	0.3	87	9	08S	+0.80
11	15	0.22	83	7	09S	+0.78
		0.22	91	7	08S	+0.74
		0.24	91	7	07S	+0.78
		0.45	0	13	08S	+0.72
		0.27	0	8	09S	+0.78
		0.39	0	11	07S	+0.73
11	24	0.27	105	8	08S	+0.78
		0.24	0	8	08S	+0.84
11	58	0.42	46	11	12S	+0.67
11	60	0.36	0	12	12S	+0.70
		0.24	93	7	12S	+0.70
12	1	0.38	113	12	09S	-0.65
12	7	0.38	108	12	07S	-0.68
12	9	0.46	0	14	12S	+0.71
		0.23	89	8	12S	+0.77
12	10	0.28	0	9	07S	-0.74
		0.26	111	9	07S	-0.66
12	14	0.18	0	6	07S	+0.73
		0.18	109	6	07S	+0.77
12	18	0.31	109	10	07S	-0.74
		0.15	131	5	07S	+0.77
12	28	0.37	106	11	08S	+0.73
12	70	0.81	51	18	10S	+0.63
13	3	0.24	0	8	09S	-0.74
		0.28	138	9	09S	-0.77
13	6	0.36	116	11	07S	-0.61
13	7	0.44	0	13	07S	-0.70
		0.23	107	8	07S	-0.70
13	9	0.34	63	11	07S	-0.68
13	24	0.24	106	8	07S	+0.83

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
13	59	0.4	0	13	08S	+0.70
		0.21	67	6	08S	+0.70
13	61	0.28	0	9	07S	+0.60
		0.36	37	9	07S	+0.60
13	69	0.23	0	9	07S	+0.65
		0.29	61	8	07S	+0.65
		0.39	53	10	08S	+0.60
13	71	0.22	0	7	08S	+0.71
		0.21	0	9	09S	-0.74
		0.23	59	6	08S	+0.58
		0.41	58	11	09S	-0.74
14	1	0.24	60	9	11S	+0.66
14	8	0.47	104	14	07S	-0.70
14	32	0.47	0	15	12S	+0.79
		0.37	73	9	12S	+0.66
14	70	0.27	0	9	08S	+0.60
		0.23	0	8	07S	+0.65
		0.19	78	5	07S	+0.65
		0.2	98	6	08S	+0.56
		0.31	108	8	10S	+0.71
15	8	0.35	0	11	07S	-0.74
		0.26	119	9	07S	-0.68
15	30	0.71	107	20	06S	+0.68
15	64	0.37	0	12	07S	-0.77
		0.32	114	10	07S	-0.77
15	76	0.52	0	16	10S	+0.65
		0.44	111	12	10S	+0.67
16	5	0.33	82	8	07S	-0.70
16	6	0.2	0	6	08S	-0.75
		0.22	83	7	08S	-0.70
16	7	0.37	0	11	07S	-0.68
		0.25	118	8	07S	-0.61
16	8	0.21	96	7	07S	-0.73
16	9	0.35	27	11	07S	-0.75
16	76	0.26	0	9	08S	+0.65
		0.26	118	7	08S	+0.65
16	77	0.51	90	14	09S	-0.70
17	7	0.3	0	9	07S	-0.70
		0.33	110	10	07S	-0.68
17	8	0.44	113	13	07S	-0.75
17	9	0.26	0	8	08S	-0.74
		0.37	0	11	07S	-0.68
		0.29	125	10	07S	-0.70
		0.21	69	7	08S	-0.74

Tubes Left In-Service with Through-Wall Indications 1% to 39%

OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
17	70	0.19	85	6	07S	+0.65
17	75	0.46	65	12	08S	+0.63
18	7	0.28	0	9	07S	-0.66
		0.38	107	9	07S	-0.68
18	9	0.3	0	9	07S	-0.65
		0.23	0	7	08S	-0.70
		0.33	111	11	07S	-0.66
		0.2	89	7	08S	-0.72
18	25	0.42	85	14	09S	+0.68
		0.52	0	15	09S	+0.71
18	74	0.51	95	14	06S	+0.70
19	3	0.48	79	15	12S	+0.68
19	7	0.22	51	8	12S	+0.73
19	8	0.27	0	8	08S	-0.81
		0.25	52	6	08S	-0.82
19	30	0.18	53	7	03S	+0.76
		0.42	0	13	03S	+0.72
19	33	0.34	123	11	09S	+0.59
		0.13	0	4	09S	+0.58
19	68	0.49	0	15	09S	+0.62
		0.38	136	11	09S	+0.62
19	75	0.51	48	13	07S	+0.60
19	76	0.37	133	11	07S	+0.69
19	84	0.26	0	9	08S	-0.76
		0.43	146	13	08S	-0.72
20	77	0.4	0	14	07S	+0.58
		0.48	0	17	08S	+0.65
		0.63	47	15	07S	+0.58
		0.43	106	11	08S	+0.65
21	1	0.26	0	8	11S	+0.75
		0.23	56	8	11S	+0.68
21	6	0.27	0	8	08S	-0.74
		0.28	66	7	08S	-0.80
22	11	0.3	0	9	08S	-0.76
		0.31	50	7	08S	-0.82
22	59	0.24	81	5	10S	+0.67
23	8	0.27	0	9	08S	-0.75
		0.29	103	7	08S	-0.77
23	86	0.42	0	15	07S	+0.55
		0.42	0	15	08S	+0.60
		0.76	138	16	08S	+0.60
		0.39	95	9	07S	+0.55
24	6	0.22	0	7	08S	-0.74
		0.27	61	7	08S	-0.80

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
24	7	0.23	0	7	08S	-0.75
		0.3	111	11	08S	-0.79
		0.31	95	11	12S	+0.66
24	8	0.24	0	7	08S	-0.80
		0.24	75	6	08S	-0.80
24	51	0.29	68	8	12S	+0.82
24	85	0.28	128	7	07S	+0.69
24	88	0.47	52	9	07S	+0.62
		0.38	98	8	08S	-0.72
		0.31	89	7	08S	+0.55
24	89	0.39	0	14	07S	+0.65
		0.23	0	9	08S	+0.62
		0.42	69	11	07S	+0.65
		0.3	64	8	08S	+0.62
24	92	0.36	54	8	08S	+0.73
25	7	0.34	118	12	08S	-0.82
25	8	0.29	0	8	08S	-0.77
		0.31	52	7	08S	-0.84
25	89	0.45	0	14	08S	+0.62
		0.23	67	5	07S	+0.39
		0.38	93	8	08S	+0.62
25	90	0.37	0	13	07S	+0.55
		0.32	0	12	08S	+0.67
		0.33	104	8	07S	+0.55
		0.46	113	12	08S	+0.67
25	94	0.43	0	14	08S	-0.75
		0.42	126	14	08S	-0.75
26	90	0.46	0	15	07S	+0.66
		0.38	0	12	09S	+0.79
		0.49	99	12	07S	+0.67
		0.78	85	19	08S	+0.46
		0.49	74	12	09S	+0.64
26	92	0.31	73	7	09S	-0.80
26	94	0.43	49	10	08S	-0.78
26	95	0.49	98	15	08S	-0.78
26	96	0.8	0	23	08S	-0.72
		0.48	91	11	08S	-0.78
26	97	0.78	0	23	08S	-0.79
		0.29	106	10	08S	-0.78
27	4	0.38	0	12	08S	-0.74
		0.32	77	9	08S	-0.82
27	93	0.44	113	10	08S	+0.59
27	98	0.4	73	13	08S	-0.78
28	8	0.23	107	7	07S	-0.77

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
28	9	0.3	103	8	07S	-0.77
28	55	0.33	64	8	03S	+0.65
29	98	0.28	116	10	12S	+0.71
29	104	0.58	85	17	11S	+0.73
30	103	0.36	79	8	08S	-0.78
31	11	0.38	104	11	09S	+0.48
31	32	1.06	92	24	10S	+0.82
31	49	0.19	52	5	07S	+0.70
32	101	0.39	91	13	04S	+0.64
33	4	0.36	70	10	08S	-0.73
33	19	0.19	66	5	02S	+0.73
33	104	0.27	72	9	08S	-0.84
34	86	0.35	104	16	15S	+0.58
34	106	0.22	92	8	09S	+0.64
35	7	0.43	0	12	05S	+0.72
		0.23	99	7	05S	+0.68
35	11	0.35	88	10	12S	+0.68
35	86	0.37	65	9	03S	+0.67
36	9	0.29	96	8	07S	+0.68
36	73	0.42	105	11	03S	+0.64
36	113	0.36	79	12	02S	-0.80
37	113	1.03	71	20	11S	+0.71
37	114	0.3	113	10	11S	+0.75
38	3	0.31	134	9	08S	-0.77
38	5	0.25	91	8	08S	-0.77
39	8	0.27	0	8	06S	-0.76
		0.28	79	8	06S	-0.73
39	93	0.2	0	8	04S	-0.75
		0.22	123	9	04S	-0.75
40	7	0.31	98	10	08S	-0.79
40	116	0.3	61	10	08S	+0.70
40	117	0.23	0	9	08S	-0.79
		0.31	0	11	08S	+0.65
		0.33	116	11	08S	-0.71
41	58	0.33	57	8	03S	+0.63
41	116	0.66	83	16	12S	+0.72
		0.61	101	15	11S	-0.71
43	118	0.34	0	11	12S	+0.75
		0.28	112	7	12S	+0.74
45	65	0.2	91	7	04S	+0.70
45	115	0.41	52	12	07S	+0.59
46	24	0.64	106	20	03S	+0.70
46	112	0.35	65	12	08S	+0.56
46	114	0.24	77	9	08S	+0.52

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
47	4	0.27	71	10	11S	+0.64
50	5	0.42	79	13	09S	+0.59
50	117	0.21	0	7	08S	+0.71
		0.27	72	8	08S	+0.64
52	5	0.3	120	11	09S	+0.64
52	6	0.64	92	19	09S	+0.64
52	11	0.38	62	13	03S	+0.70
53	5	0.44	55	14	09S	+0.64
53	119	0.33	107	10	08S	+0.61
54	1	0.39	124	17	08S	-0.79
		0.39	0	13	08S	-0.73
54	4	0.24	115	7	09S	+0.64
54	124	0.41	40	12	08S	-0.87
55	96	0.65	68	15	03S	+0.70
55	119	0.37	62	11	08S	+0.69
57	1	0.3	118	14	10S	+0.70
		0.69	102	25	10S	-0.68
		0.42	146	18	08S	-0.75
		0.43	0	13	08S	-0.73
57	2	0.72	96	18	08S	+0.66
57	127	0.84	102	21	10S	+0.64
58	1	0.37	138	16	09S	-0.79
58	6	0.62	65	23	09S	+0.64
		0.49	0	16	09S	+0.67
58	128	0.39	42	11	10S	+0.67
59	2	0.65	93	16	08S	+0.68
59	5	0.26	117	13	09S	+0.75
		0.25	0	8	09S	+0.65
59	124	0.33	0	11	13S	-0.55
		0.27	87	10	13S	-0.62
60	1	0.39	113	17	10S	+0.70
60	4	0.4	99	17	09S	+0.70
		0.31	0	11	09S	+0.72
		0.44	0	15	09S	-0.75
60	42	0.34	90	8	09S	+0.79
60	84	0.14	108	6	04S	-0.32
60	124	0.27	0	10	08S	+0.60
		0.22	117	8	08S	+0.60
61	5	0.25	104	12	07S	-0.75
		0.2	88	10	05S	+0.70
		0.3	0	9	05S	+0.72
		0.58	0	17	07S	-0.69
61	124	0.29	0	10	11S	+0.78
		1.02	91	26	10S	+0.00

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.26	76	10	11S	+0.66
		0.25	114	9	08S	-0.82
62	2	0.28	89	13	10S	+0.43
62	4	0.21	92	11	07S	-0.72
62	7	0.27	98	8	10S	+0.73
62	62	0.79	42	15	11S	-0.81
62	124	0.51	107	17	08S	+0.69
62	126	0.39	0	14	07S	-0.78
		0.25	75	10	07S	-0.78
62	128	0.42	116	14	08S	-0.80
		0.88	89	24	10S	+0.00
63	116	0.24	66	9	07S	-0.83
63	124	0.43	80	15	07S	-0.71
		0.28	91	10	08S	-0.59
63	128	0.31	123	11	08S	-0.84
		0.47	77	16	10S	+0.59
64	8	0.2	83	6	10S	+0.73
64	9	0.32	119	15	08S	+0.70
		0.17	0	5	08S	+0.74
64	61	0.51	49	9	08S	+0.74
		0.41	0	13	08S	+0.69
64	114	0.34	90	10	04S	+0.00
65	87	0.43	97	10	04S	+0.66
65	122	0.34	98	12	08S	+0.50
65	128	0.33	0	11	11S	+0.65
		0.28	115	10	08S	-0.87
		0.33	63	12	11S	+0.64
65	129	0.23	68	7	08S	-0.80
		0.62	83	17	10S	+0.77
66	14	0.26	97	8	11S	+0.70
66	17	0.47	89	19	11S	+0.70
		0.54	0	16	11S	+0.65
66	126	0.38	79	11	07S	-0.80
66	127	0.4	0	13	15S	-0.95
		0.45	94	15	15S	-0.96
66	128	0.27	0	9	07S	+0.63
		0.18	66	5	07S	+0.64
		0.25	73	7	08S	-0.85
66	130	0.1	96	3	12S	-0.82
67	6	0.22	87	6	10S	+0.75
67	62	0.7	88	13	10S	+0.79
67	118	0.3	0	10	05S	+0.76
		0.23	128	9	05S	+0.66
67	129	0.22	0	8	08S	+0.74

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.42	0	14	08S	-0.65
		0.16	0	6	11S	-0.75
		0.32	67	9	08S	-0.83
		0.53	92	14	10S	+0.60
		0.23	97	7	11S	-0.85
68	3	0.32	102	14	11S	+0.68
68	12	0.42	87	13	11S	+0.61
68	15	0.5	109	19	11S	+0.72
68	16	0.33	80	10	11S	+0.73
68	22	0.4	91	11	12S	+0.70
68	34	0.33	0	10	12S	+0.74
		0.25	83	7	12S	+0.78
68	42	0.23	0	8	09S	+0.75
		0.24	78	7	09S	+0.81
68	60	0.33	0	11	04S	+0.71
		0.48	57	9	04S	+0.74
68	61	0.25	68	4	08S	+0.76
68	73	0.23	0	10	06S	-0.80
		0.29	83	7	06S	-0.82
68	127	0.62	0	19	08S	-0.68
68	129	0.43	0	15	09S	+0.68
		0.33	91	12	09S	+0.64
		0.59	89	19	10S	+0.02
68	130	0.32	0	11	10S	+0.66
		0.36	90	10	08S	-0.80
		0.32	82	9	10S	+0.46
		0.44	90	12	11S	-0.85
69	4	0.86	81	21	11S	+0.73
69	5	0.4	107	16	11S	+0.72
69	14	0.27	74	8	11S	+0.70
69	129	0.27	0	9	08S	-0.39
		0.2	92	8	08S	-0.45
69	131	0.16	0	6	08S	-0.79
		0.2	0	8	11S	-0.79
		0.26	0	9	12S	-0.80
		0.41	115	12	10S	+0.50
		0.18	72	5	11S	-0.82
		0.34	102	10	12S	-0.83
		0.26	80	8	08S	-0.85
70	4	0.58	0	17	11S	+0.67
		0.38	123	15	11S	+0.70
70	5	0.46	93	13	11S	+0.70
70	13	0.2	84	6	11S	+0.75
		0.18	80	5	10S	+0.68

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
70	14	0.36	119	15	11S	+0.72
70	16	0.43	106	17	11S	+0.70
70	30	0.42	83	12	11S	+0.68
70	34	0.19	89	6	07S	+0.76
70	128	0.32	0	11	10S	-0.75
		0.14	0	5	10S	+0.70
		0.35	85	10	10S	-0.80
70	130	0.45	0	15	08S	-0.76
		0.29	94	8	08S	-0.85
		0.21	106	6	11S	-0.85
71	6	0.5	0	15	11S	+0.67
		0.39	118	16	11S	+0.72
71	13	0.39	99	11	11S	+0.63
71	14	0.36	132	15	11S	+0.70
71	17	0.24	85	7	11S	+0.68
71	22	0.42	109	17	11S	+0.66
71	34	0.29	0	9	12S	+0.72
		0.37	113	11	12S	+0.78
71	126	0.37	0	12	08S	+0.19
		0.13	0	5	08S	+0.81
		0.33	76	10	08S	+0.16
71	128	0.46	93	13	10S	-0.64
		0.46	84	13	15S	-0.69
71	129	0.54	87	18	09S	+0.34
		0.76	71	22	10S	+0.00
71	130	0.43	96	12	08S	-0.83
72	2	0.18	0	6	14S	+0.66
		0.24	70	5	14S	+0.61
72	3	0.56	102	14	12S	+0.70
72	12	0.37	86	15	11S	+0.70
72	13	0.42	81	12	11S	+0.68
72	23	0.21	88	6	07S	+0.64
72	31	0.49	93	11	12S	+0.81
72	38	0.37	102	10	11S	+0.76
72	57	0.49	0	16	10S	+0.70
		0.45	94	12	10S	+0.66
72	58	0.74	87	18	11S	+0.75
72	61	0.31	79	9	09S	-0.74
72	91	0.17	88	6	04S	+0.46
72	127	0.3	0	10	07S	+0.75
		0.16	0	6	07S	-0.77
		0.23	110	7	07S	+0.62
		0.69	92	18	10S	-0.67
73	14	0.19	98	5	13S	-0.41

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.23	0	7	13S	-0.49
73	20	0.18	94	5	12S	+0.75
73	22	0.35	81	10	11S	+0.70
73	41	0.42	90	12	12S	+0.78
73	57	0.24	94	7	10S	+0.79
73	61	0.43	78	11	07S	+0.72
73	128	0.35	115	11	08S	-0.89
		0.46	92	14	09S	+0.43
		0.83	89	21	10S	-0.77
74	16	0.19	0	6	11S	+0.65
		0.27	68	5	11S	+0.68
74	34	0.28	0	9	14S	+0.72
		0.23	97	7	14S	+0.78
74	123	0.38	97	12	08S	-0.16
		0.36	130	11	11S	+0.00
74	124	0.68	0	21	08S	-0.62
		0.45	117	12	08S	-0.71
		0.36	93	10	10S	+0.57
75	16	0.33	0	10	14S	+0.73
		0.29	80	6	14S	+0.52
75	29	0.56	99	14	07S	-0.77
75	73	0.46	62	11	07S	-0.80
75	89	0.25	107	7	04S	+0.68
75	123	0.56	88	15	10S	-0.64
		0.44	95	12	11S	-0.48
76	122	0.49	95	13	09S	+0.55
76	123	0.3	114	10	11S	+0.00
		0.29	56	10	10S	-0.78
		0.57	101	18	10S	+0.61
77	6	0.28	62	7	11S	-0.76
		0.44	0	15	11S	-0.79
77	17	0.52	91	12	07S	-0.80
77	65	0.24	73	6	09S	+0.72
		0.17	97	4	09S	-0.70
77	74	0.48	27	15	07S	-0.80
		0.26	0	10	07S	-0.84
77	76	0.51	29	16	07S	-0.72
77	80	0.23	0	8	09S	-0.72
		0.5	37	15	04S	+0.54
		0.37	45	12	05S	+0.63
		0.39	133	13	05S	-0.75
		0.44	62	14	04S	-0.67
		0.31	44	11	07S	+0.66
		0.33	26	11	09S	-0.80

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
77	86	0.4	32	13	04S	+0.60
78	74	0.29	29	10	04S	+0.75
		0.29	0	11	04S	+0.75
78	76	0.22	123	8	07S	-0.83
		0.22	0	8	07S	-0.83
78	123	0.59	76	18	08S	-0.68
78	125	0.43	0	12	10S	-0.61
		0.35	95	11	09S	-0.57
		0.34	94	11	10S	-0.66
		0.43	82	14	09S	+0.35
79	19	0.27	0	10	04S	+0.66
		0.19	80	4	10S	-0.71
		0.21	65	5	06S	+0.67
		0.22	69	5	04S	+0.59
79	29	0.24	45	5	10S	-0.68
79	32	0.33	0	11	10S	-0.73
		0.46	97	15	10S	-0.75
79	35	0.3	66	6	10S	-0.80
79	37	0.36	0	11	09S	-0.75
		0.31	111	11	09S	-0.79
79	38	0.16	96	3	10S	-0.77
79	39	0.41	0	12	10S	-0.75
		0.51	111	16	10S	-0.77
79	41	0.23	0	7	10S	-0.75
		0.4	117	13	10S	-0.79
79	43	0.28	0	8	10S	-0.74
		0.36	102	12	10S	-0.75
79	83	0.37	136	12	06S	+0.62
		0.23	0	9	06S	+0.68
79	95	0.33	66	11	04S	+0.67
79	128	0.66	93	17	10S	+0.61
		0.3	82	9	10S	-0.74
79	129	0.26	0	9	10S	-0.64
		0.54	89	16	11S	-0.85
		0.25	114	8	10S	-0.83
80	2	0.22	85	4	12S	+0.70
80	5	0.26	103	6	10S	-0.71
		0.33	0	11	10S	-0.74
80	17	0.15	76	3	10S	-0.70
80	29	0.36	92	11	10S	-0.75
80	35	0.25	0	9	10S	-0.80
		0.33	0	11	12S	-0.67
		0.43	35	14	12S	-0.63
		0.49	132	16	10S	-0.77

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
80	37	0.26	0	10	10S	-0.80
		0.38	125	13	10S	-0.81
80	43	0.24	153	9	11S	+0.68
80	55	0.36	0	11	08S	-0.75
		0.29	118	10	08S	-0.78
80	66	0.3	96	7	07S	-0.73
80	131	0.43	112	12	11S	-0.80
81	4	0.18	76	5	10S	-0.70
		0.19	0	7	10S	-0.68
81	17	0.19	99	5	10S	-0.70
		0.25	0	9	10S	-0.73
81	18	0.32	110	8	10S	-0.73
		0.29	0	10	10S	-0.76
81	21	0.31	111	9	10S	-0.75
		0.35	0	12	10S	-0.81
81	22	0.3	116	7	10S	-0.79
		0.33	112	9	10S	-0.79
81	25	0.27	125	6	10S	-0.75
		0.42	0	14	10S	-0.75
81	26	0.44	0	15	10S	-0.70
		0.29	97	9	10S	-0.73
81	29	0.22	123	5	10S	-0.77
81	30	0.37	101	11	10S	-0.75
81	34	0.46	103	15	10S	-0.77
81	37	0.2	0	7	10S	-0.79
		0.38	66	13	10S	-0.75
81	46	0.23	123	5	10S	-0.66
81	48	0.26	101	5	10S	-0.68
81	51	0.52	100	17	08S	-0.79
81	52	0.23	78	5	10S	-0.66
81	55	0.42	0	12	08S	-0.75
		0.33	98	11	08S	-0.76
81	73	0.18	70	4	09S	-0.75
81	130	0.23	0	8	08S	-0.75
		0.25	81	8	08S	-0.74
		0.21	75	7	09S	+0.67
		0.6	97	18	10S	-0.78
		0.67	91	20	11S	-0.80
81	131	0.2	0	7	10S	-0.71
		0.29	115	8	10S	-0.83
82	13	0.15	77	4	11S	-0.68
		0.3	0	10	11S	-0.72
82	19	0.16	119	4	08S	-0.79
		0.29	0	10	08S	-0.75

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
82	43	0.5	97	16	08S	-0.79
82	45	0.26	139	9	10S	+0.70
82	50	0.44	0	13	10S	+0.75
		0.29	103	6	10S	+0.66
82	52	0.36	0	11	10S	+0.67
		0.23	66	5	10S	+0.64
82	53	0.29	122	10	10S	+0.74
82	58	0.34	81	8	10S	+0.73
82	60	0.23	81	6	10S	+0.71
82	94	0.24	83	6	04S	+0.66
82	128	0.23	94	7	09S	+0.26
82	129	0.63	91	18	11S	-0.78
83	13	0.42	82	11	11S	-0.72
83	19	0.23	105	6	08S	-0.79
		0.21	0	7	08S	-0.78
83	23	0.2	106	6	08S	-0.79
		0.2	0	7	08S	-0.75
83	26	0.37	85	9	08S	-0.75
83	30	0.33	57	8	10S	-0.75
83	53	0.44	96	9	10S	+0.70
83	54	0.37	81	6	10S	+0.73
83	63	0.24	89	5	09S	+0.79
83	67	0.11	87	3	08S	-0.75
83	73	0.34	59	8	08S	-0.77
83	131	0.25	0	8	11S	-0.70
		0.36	100	12	11S	-0.78
84	7	0.15	106	4	11S	+0.76
		0.26	0	9	11S	+0.66
84	13	0.18	90	5	07S	-0.81
		0.24	0	8	07S	-0.77
84	15	0.13	100	4	08S	-0.79
		0.24	0	8	08S	-0.73
84	29	0.17	75	5	08S	-0.81
		0.24	0	8	08S	-0.74
84	51	0.69	86	20	10S	-0.72
84	54	0.29	110	6	10S	-0.60
84	56	0.31	84	6	10S	-0.62
84	59	0.3	93	5	10S	+0.72
		0.37	95	7	10S	-0.63
84	60	0.35	0	12	10S	+0.64
		0.51	0	17	10S	-0.65
		0.35	114	7	10S	-0.55
		0.19	66	4	10S	+0.75
84	61	0.23	123	4	10S	-0.59

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
84	66	0.45	82	10	07S	-0.73
84	82	0.26	113	8	04S	+0.67
85	9	0.51	104	13	08S	-0.78
85	21	0.23	92	5	10S	-0.75
85	25	0.2	91	5	10S	-0.75
85	27	0.33	114	8	10S	-0.77
85	28	0.31	72	8	10S	-0.77
85	49	0.32	119	11	10S	+0.72
85	50	0.31	77	7	10S	+0.72
85	57	0.26	0	9	10S	+0.64
		0.2	79	3	10S	+0.81
85	62	0.46	0	15	10S	-0.66
		0.26	86	5	10S	-0.64
85	93	0.34	0	11	04S	+0.74
		0.19	85	6	04S	+0.71
86	51	0.49	88	16	10S	-0.72
86	131	0.17	118	5	11S	-0.87
87	26	0.24	0	8	05S	-0.82
		0.25	67	6	05S	-0.79
87	35	0.95	95	18	10S	-0.70
87	39	0.29	0	10	09S	-0.75
		0.29	102	7	10S	-0.75
		0.28	100	7	09S	-0.76
87	122	0.7	81	18	07S	+0.63
87	130	0.17	0	6	11S	-0.18
		0.37	0	12	10S	-0.78
		0.23	104	7	10S	-0.78
		0.26	116	8	11S	-0.09
88	34	0.5	0	17	10S	-0.66
		0.45	71	13	10S	-0.68
88	53	0.83	90	13	09S	+0.80
88	129	0.4	0	13	08S	-0.75
		0.39	126	11	08S	-0.76
89	26	0.27	0	9	10S	-0.75
		0.23	74	6	10S	-0.75
89	73	0.25	74	6	04S	+0.67
89	106	0.29	101	11	05S	-0.80
		0.25	0	8	05S	-0.71
89	128	0.26	0	8	07S	-0.72
		0.41	92	11	07S	-0.82
90	9	0.28	104	7	08S	-0.78
90	82	0.37	93	11	04S	+0.70
91	29	0.29	93	8	01S	-0.79
		0.27	86	7	01S	-0.75

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
92	16	0.36	108	10	06S	+0.70
92	57	0.21	72	4	06S	+0.77
		0.14	69	3	05S	-0.70
92	89	0.22	83	6	04S	+0.68
92	92	0.36	58	11	04S	+0.66
92	127	0.68	93	17	04S	+0.70
93	88	0.28	76	7	04S	+0.66
94	6	0.29	0	10	07S	-0.70
		0.18	91	5	07S	-0.74
94	46	0.21	95	5	07S	-0.76
94	75	0.45	56	10	04S	+0.60
94	128	0.19	0	7	08S	-0.70
		0.31	0	11	04S	+0.75
		0.51	70	14	04S	+0.76
		0.5	34	13	08S	-0.78
94	129	0.59	95	17	08S	-0.76
		0.28	72	9	11S	-0.87
95	2	0.43	0	14	11S	+0.70
		0.31	95	7	11S	+0.72
95	6	0.26	123	6	07S	-0.78
		0.4	0	14	07S	-0.73
95	63	0.21	103	4	09S	-0.72
95	74	0.28	81	6	04S	+0.66
95	87	0.46	76	13	04S	+0.66
95	122	0.32	133	10	09S	-0.81
		0.26	0	10	09S	-0.76
95	123	0.37	121	10	09S	-0.80
95	125	0.81	46	20	04S	+0.69
96	70	0.58	71	13	04S	+0.68
96	123	0.19	144	6	07S	-0.85
96	127	0.35	86	11	10S	-0.76
97	118	0.73	24	18	03S	+0.74
		0.23	0	9	03S	+0.71
97	123	0.34	112	11	09S	-0.81
98	99	0.45	101	12	07S	+0.44
		0.29	107	9	07S	+0.59
98	125	0.28	55	9	09S	-0.85
99	95	0.26	0	9	04S	+0.75
		0.18	96	5	04S	+0.68
101	7	0.18	86	5	07S	-0.79
		0.23	0	8	07S	-0.75
101	79	0.49	56	13	04S	+0.71
101	122	0.24	73	8	09S	-0.87
		0.27	0	9	09S	-0.73

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
102	20	0.23	106	5	07S	-0.79
		0.31	0	9	07S	-0.68
102	121	0.34	0	10	04S	-0.64
		0.34	50	9	04S	-0.73
102	123	0.43	50	11	10S	-0.74
103	4	0.14	85	4	07S	-0.74
		0.19	0	7	07S	-0.81
103	5	0.22	86	6	07S	-0.77
		0.25	0	9	07S	-0.91
103	17	0.19	102	5	07S	-0.81
		0.21	0	7	07S	-0.73
104	121	0.24	101	7	11S	-0.83
105	5	0.27	103	7	07S	-0.79
105	6	0.16	85	4	07S	-0.81
		0.32	0	10	07S	-0.72
105	85	0.42	43	10	15S	+0.80
		0.41	31	10	01S	+0.77
105	119	0.24	0	7	14S	+0.74
		0.2	0	6	12S	+0.75
		0.24	68	7	12S	+0.74
		0.22	90	6	14S	+0.82
106	4	0.21	99	6	07S	-0.72
106	7	0.23	109	6	07S	-0.77
106	18	0.21	0	7	07S	-0.74
		0.23	113	7	07S	-0.78
106	119	0.35	0	11	11S	+0.65
		0.56	86	14	11S	+0.65
		0.73	85	17	15S	+0.70
107	15	0.56	106	14	14S	-0.81
107	31	0.18	86	4	03S	+0.70
		0.27	44	6	09S	+0.70
108	20	0.25	0	8	07S	-0.75
		0.2	96	5	07S	-0.81
108	111	0.26	105	7	04S	-0.77
		0.34	0	10	04S	-0.77
109	98	0.33	121	9	07S	-0.79
109	117	0.32	127	9	10S	-0.78
		0.29	62	8	14S	+0.78
		0.19	72	5	13S	+0.71
111	4	0.21	119	5	08S	+0.79
		0.18	0	6	08S	+0.74
111	48	0.16	119	3	05S	-0.83
111	100	0.2	85	5	09S	-0.84
112	93	0.45	98	11	15S	-0.86

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
112	94	0.36	0	12	03S	+0.75
		0.25	97	7	03S	+0.69
		0.2	107	6	07S	-0.84
113	72	0.26	84	6	04S	+0.68
113	91	0.26	98	7	15S	-0.83
113	99	0.23	72	7	15S	-0.86
113	111	0.42	142	10	07S	-0.80
114	39	0.15	0	5	05S	-0.69
		0.22	110	7	05S	-0.81
114	80	0.28	72	8	10S	-0.90
114	97	0.28	122	12	15S	-0.82
114	109	0.36	129	10	07S	-0.79
114	114	0.21	0	7	09S	+0.68
115	15	0.15	0	5	05S	-0.74
		0.19	105	5	05S	-0.85
115	47	0.2	85	4	05S	-0.78
115	50	0.43	92	10	05S	-0.81
115	63	0.23	122	7	05S	-0.77
115	98	0.33	94	13	09S	-0.80
116	5	0.22	0	7	08S	+0.77
		0.14	87	4	08S	+0.74
116	6	0.29	104	7	07S	-0.68
116	85	0.31	74	10	02S	+0.81
117	1	0.23	88	6	08S	+0.83
117	24	0.25	0	8	05S	-0.77
		0.27	109	8	05S	-0.77
117	34	0.41	105	12	05S	-0.81
117	92	0.27	83	9	15S	-0.80
118	101	0.36	141	10	07S	-0.86
119	2	0.18	94	5	10S	-0.44
119	3	0.18	86	4	08S	+0.77
119	102	0.24	75	7	14S	-0.84
		0.49	71	13	07S	-0.72
119	108	0.2	0	7	10S	-0.78
		0.3	127	8	10S	-0.78
120	1	0.36	98	9	08S	+0.85
120	2	0.22	83	5	13S	-0.81
120	107	0.2	0	7	10S	+0.75
		0.22	113	6	10S	+0.63
121	2	0.21	90	5	08S	+0.68
121	94	0.27	123	8	09S	-0.86
121	105	0.54	30	14	10S	+0.48
122	1	0.21	54	6	11S	-0.79
122	93	0.13	0	5	15S	-0.78

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.36	41	11	15S	-0.78
122	103	0.67	143	17	10S	-0.74
		0.55	0	17	10S	-0.65
122	104	0.49	111	9	09S	+0.61
123	1	0.3	116	8	12S	+0.68
		0.54	102	13	11S	-0.77
		0.26	98	7	08S	+0.72
123	76	0.13	0	5	15S	-0.72
		0.26	88	8	15S	-0.78
123	92	0.11	0	4	15S	-0.78
		0.3	125	9	15S	-0.78
123	102	0.37	110	10	10S	-0.83
		0.51	0	16	10S	-0.63
125	25	0.15	0	5	08S	-0.80
		0.27	99	5	08S	-0.84
125	29	0.26	0	10	08S	-0.76
		0.48	93	9	08S	-0.75
125	63	0.4	89	11	08S	+0.66
125	75	0.26	74	8	15S	-0.90
125	80	0.93	51	23	04S	+0.68
126	92	0.52	126	10	07S	-0.66
127	60	0.47	96	10	09S	+0.66
127	71	0.37	41	10	09S	+0.69
129	3	0.64	71	15	12S	+0.75
129	77	0.31	0	12	04S	+0.74
		0.24	125	5	04S	+0.68
130	87	0.2	0	7	07S	-0.71
		0.25	142	9	07S	-0.77
131	72	0.48	140	15	07S	+0.71
		0.28	78	9	15S	-0.82
131	84	0.25	122	8	07S	-0.85
132	15	0.17	71	4	14S	-0.83
132	32	0.32	108	7	15S	+0.55
132	64	0.14	87	4	15S	-0.85
133	1	0.19	85	5	10S	-0.72
133	2	0.43	103	9	10S	-0.79
133	3	0.35	91	9	10S	-0.77
133	72	0.32	141	9	15S	-0.88
134	3	0.88	93	20	12S	+0.61
135	71	0.65	98	18	09S	-0.80
135	72	0.4	89	12	09S	+0.69
136	80	0.24	93	8	08S	-0.69
		0.23	110	7	08S	-0.69
137	1	0.57	102	14	09S	+0.72

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
137	11	0.23	90	8	08S	-0.70
138	8	0.33	126	6	09S	-0.81
138	26	0.32	0	10	06S	+0.75
		0.3	91	6	06S	+0.70
138	74	0.42	0	13	12S	+0.67
		0.27	74	8	12S	+0.67
139	2	0.68	87	14	10S	-0.75
139	4	0.37	0	11	10S	-0.69
		0.41	128	8	10S	-0.77
139	47	0.32	71	11	09S	+0.69
139	62	0.43	129	12	11S	-0.83
140	2	0.36	94	7	08S	+0.81
		0.66	101	12	10S	-0.73
140	3	0.49	89	15	10S	-0.72
141	2	0.99	81	17	10S	-0.68
141	3	0.39	71	12	10S	-0.61
141	47	0.25	0	9	09S	+0.68
		0.32	49	9	09S	+0.70
141	64	0.94	118	23	15S	-0.80
143	43	0.27	0	10	07S	-0.65
		0.27	110	6	07S	-0.65
143	47	0.31	111	7	07S	-0.81
143	48	0.28	68	7	07S	-0.85
143	50	0.2	0	7	06S	+0.73
		0.28	76	7	06S	+0.63
143	57	0.26	106	6	09S	+0.67
144	25	0.25	0	9	07S	-0.67
		0.27	119	9	07S	-0.75
145	9	0.2	0	6	09S	-0.77
		0.22	101	5	09S	-0.88
145	12	0.21	0	6	07S	-0.72
		0.19	0	6	07S	+0.67
		0.19	86	6	07S	-0.75
145	16	0.29	0	10	07S	-0.63
		0.29	119	8	07S	-0.70
145	25	0.26	0	12	05S	-0.74
		0.23	0	9	05S	+0.75
		0.19	81	7	05S	-0.77
145	31	0.27	0	10	07S	-0.66
		0.23	121	8	07S	-0.79
145	33	0.33	0	12	07S	-0.59
		0.26	113	9	07S	-0.77
145	47	0.25	49	6	05S	-0.74
145	52	0.48	81	13	12S	+0.70

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
145	53	0.45	107	10	10S	-0.65
146	5	0.26	0	8	09S	+0.66
		0.27	104	9	09S	+0.68
146	7	0.25	0	8	07S	-0.74
		0.28	0	9	07S	+0.74
		0.29	133	9	07S	+0.70
		0.31	68	10	08S	-0.72
		0.5	105	15	08S	+0.78
146	11	0.24	0	7	07S	-0.75
		0.25	95	8	07S	-0.77
146	18	0.36	0	13	08S	-0.60
		0.32	104	11	08S	-0.64
146	21	0.39	72	9	07S	-0.66
146	22	0.61	100	18	07S	-0.73
146	25	0.21	96	5	07S	-0.66
146	26	0.42	108	13	07S	-0.81
146	29	0.33	118	7	07S	-0.73
146	34	0.4	96	13	08S	-0.73
146	38	0.25	0	8	07S	-0.74
		0.26	116	6	07S	-0.70
146	50	0.55	100	12	10S	-0.74
147	15	0.34	0	12	07S	-0.69
		0.34	113	11	07S	-0.75
147	16	0.22	98	5	07S	-0.75
147	30	0.6	82	13	12S	+0.66
147	31	0.46	129	15	08S	-0.68
148	1	0.38	0	11	07S	-0.73
		0.43	0	13	08S	-0.71
		0.23	123	7	07S	-0.70
		0.36	134	10	08S	-0.59
148	3	0.22	0	7	07S	+0.77
		0.26	67	6	07S	+0.75
		0.62	95	12	11S	+0.64
148	4	0.32	0	9	10S	-0.76
		0.26	108	8	10S	-0.77
148	10	0.42	0	15	08S	+0.75
		0.19	119	6	08S	+0.72
148	15	0.28	0	10	07S	-0.62
		0.29	114	10	07S	-0.72
148	19	0.23	0	8	08S	-0.58
		0.19	99	7	08S	-0.66
148	23	0.34	127	11	12S	-0.86
148	36	0.67	0	20	10S	-0.71
		0.5	84	11	10S	-0.70

Tubes Left In-Service with Through-Wall Indications 1% to 39%
OTSG A

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
149	3	0.49	0	14	14S	-0.76
		0.39	118	11	14S	-0.83
149	6	0.34	0	10	07S	+0.74
		0.38	77	8	07S	+0.74
149	8	0.18	0	7	07S	+0.74
		0.33	74	7	07S	+0.75
149	10	0.16	0	6	07S	+0.64
		0.17	91	4	07S	+0.77
149	11	0.67	84	19	08S	-0.68
149	12	0.37	90	8	10S	+0.59
149	14	0.35	94	8	10S	-0.68
149	15	0.36	111	12	10S	-0.66
		0.52	0	17	10S	-0.47
149	19	0.39	115	13	12S	-0.77
		0.67	91	19	10S	-0.68
149	20	0.36	110	8	10S	-0.73
149	21	0.52	99	16	10S	-0.73
149	28	0.66	80	14	10S	-0.75
149	34	0.32	91	12	11S	-0.78
		0.16	0	7	11S	-0.78
150	7	0.39	96	9	10S	-0.77
150	10	0.32	102	11	10S	-0.77
150	14	0.42	91	13	10S	-0.71
150	15	0.77	0	24	10S	-0.66
		0.37	102	8	10S	-0.73
150	16	0.7	91	20	10S	-0.77
150	18	0.53	97	16	10S	-0.62

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
1	5	0.15	85	3	10S	-0.07
1	14	0.12	94	2	09S	+0.72
2	7	0.46	96	8	11S	+0.62
2	9	0.3	126	6	09S	-0.71
		0.46	0	7	09S	-0.71
2	10	0.37	90	7	09S	-0.73
2	13	0.29	77	6	09S	-0.78
2	20	0.54	106	10	10S	-0.74
2	21	0.74	104	13	10S	-0.70
2	22	0.45	69	8	10S	-0.74
		0.56	0	9	10S	-0.70
2	23	0.55	128	5	10S	+0.00
		0.39	0	6	10S	-0.02
2	25	0.35	85	6	10S	-0.76
		0.17	105	3	11S	-0.82
		0.31	54	6	08S	-0.66
		0.21	0	4	10S	-0.76
		0.24	0	5	08S	-0.77
2	26	0.24	86	5	08S	-0.69
		0.34	111	7	10S	-0.69
2	27	0.35	44	7	07S	-0.80
		0.26	81	6	09S	+0.67
		0.33	97	7	10S	-0.72
3	1	0.41	90	8	07S	+0.65
3	15	0.24	91	5	09S	+0.69
3	19	0.29	66	5	10S	-0.76
		0.3	0	5	10S	-0.68
3	21	0.35	50	7	10S	-0.79
3	24	0.52	93	10	10S	-0.79
		0.25	77	5	09S	-0.76
3	25	0.72	0	11	10S	-0.63
		0.31	0	5	10S	+0.69
		0.53	101	11	10S	+0.60
		0.34	107	8	10S	-0.76
3	26	0.64	100	12	10S	-0.07
3	30	0.26	133	6	08S	+0.46
4	13	0.47	99	9	08S	-0.64
4	16	0.46	105	7	08S	-0.68
4	17	0.42	109	8	09S	+0.65
4	18	0.36	123	5	09S	+0.69
4	19	0.4	104	8	09S	+0.67
4	24	0.63	106	10	09S	-0.77
4	25	0.28	93	5	09S	-0.87
		0.3	0	4	09S	-0.74

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
4	26	0.26	108	4	09S	-0.77
		0.32	0	5	09S	-0.70
4	32	0.25	87	5	09S	-0.80
4	34	0.15	89	3	09S	-0.80
4	36	0.18	92	3	09S	-0.80
4	40	0.3	96	6	11S	-0.83
		0.26	0	5	11S	-0.71
		0.13	127	29	LTS	+9.70
5	5	0.43	45	10	05S	-0.84
5	9	0.37	0	8	07S	-0.81
		0.25	103	6	07S	-0.77
5	24	0.22	88	4	08S	-0.74
		0.62	0	10	08S	-0.74
5	26	0.27	90	5	07S	+0.67
5	27	0.44	92	10	07S	+0.60
		0.22	85	5	08S	-0.85
5	30	0.23	71	4	09S	-0.82
		0.25	88	5	08S	-0.78
		0.46	0	7	08S	-0.73
		0.37	0	6	08S	+0.66
		0.29	0	4	09S	-0.75
5	34	0.24	104	5	08S	-0.80
		0.37	0	6	08S	-0.76
5	37	0.22	76	4	09S	-0.85
		0.24	54	4	07S	+0.68
		0.33	91	6	06S	-0.80
		0.2	102	4	07S	-0.85
		0.16	0	3	07S	+0.68
		0.16	0	3	06S	-0.78
		0.15	0	3	07S	-0.73
5	38	0.25	72	6	07S	+0.69
		0.87	81	16	09S	-0.85
5	44	0.52	66	11	09S	-0.87
5	46	0.42	38	9	09S	-0.83
		0.24	0	5	09S	-0.73
6	7	0.21	0	4	08S	+0.60
		0.3	92	6	08S	+0.63
6	9	0.28	0	6	10S	-0.70
		0.36	84	7	10S	-0.82
6	17	0.22	94	4	08S	-0.74
		0.23	48	4	07S	-0.81
		0.33	115	6	09S	-0.87
		0.35	0	5	08S	-0.73
		0.35	0	5	07S	-0.66

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.34	0	5	09S	-0.75
6	18	0.21	88	5	08S	-0.75
		0.17	95	4	09S	-0.80
		0.32	0	5	09S	-0.74
		0.54	0	8	08S	-0.71
6	22	0.4	129	9	09S	+0.58
		0.55	0	9	09S	+0.57
6	26	0.32	62	7	12S	-0.84
6	27	0.25	77	5	09S	-0.87
		0.27	116	5	08S	+0.41
		0.49	0	8	08S	+0.44
		0.51	0	8	09S	-0.75
6	28	0.27	69	6	07S	+0.59
		0.46	0	7	07S	+0.71
6	36	0.38	97	7	08S	-0.73
6	39	0.28	87	5	09S	-0.85
		0.26	78	5	08S	+0.62
		0.19	59	3	08S	-0.82
		0.24	0	4	09S	-0.66
6	41	0.25	84	5	09S	-0.82
		0.25	0	5	09S	-0.67
6	43	0.18	122	3	09S	-0.87
		0.33	33	6	07S	-0.83
6	44	0.39	89	8	07S	-0.81
		0.73	86	14	09S	-0.83
		0.36	0	7	07S	-0.71
6	46	0.67	88	13	08S	-0.78
6	47	0.22	91	4	09S	-0.80
6	49	0.16	92	3	12S	-0.83
		0.29	57	5	10S	-0.83
		0.65	95	11	09S	-0.80
6	50	0.37	43	8	07S	-0.71
7	10	0.51	93	10	08S	+0.61
7	11	0.43	0	9	08S	-0.80
		0.3	78	7	08S	-0.79
7	17	0.23	0	5	09S	-0.73
		0.21	94	5	09S	-0.81
7	18	0.22	92	4	08S	-0.78
		0.39	0	6	08S	-0.75
7	19	0.25	95	5	08S	-0.74
		0.19	64	4	03S	-0.80
7	20	0.86	93	17	07S	+0.55
7	22	0.35	125	8	08S	+0.53
		0.4	0	6	08S	+0.54

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
7	25	0.29	119	6	08S	-0.78
		0.26	0	4	08S	-0.60
7	26	0.44	92	10	12S	-0.85
		0.35	124	8	07S	+0.66
		0.2	122	4	09S	-0.76
		0.23	135	5	09S	+0.02
		0.44	0	7	12S	-0.74
		0.32	0	5	09S	+0.02
		0.41	0	6	09S	-0.63
7	28	0.41	78	9	08S	+0.53
7	29	0.19	95	4	09S	+0.67
		0.42	86	8	09S	-0.78
		0.4	102	8	08S	+0.53
		0.44	100	8	07S	+0.67
		0.5	112	10	07S	-0.74
		0.29	103	6	10S	-0.77
		0.34	0	5	10S	+0.74
7	30	1.09	75	21	08S	+0.53
		1.06	82	20	09S	-0.78
		0.49	76	11	08S	-0.76
		0.36	86	8	07S	+0.64
		0.47	93	10	07S	-0.78
		0.44	82	10	04S	-0.83
		0.56	0	9	07S	-0.75
		0.32	0	5	07S	+0.68
		0.36	0	6	07S	+0.67
7	33	0.14	129	3	02S	+0.23
		0.27	0	4	02S	+0.32
7	42	0.25	35	6	07S	+0.67
		0.31	67	7	09S	-0.78
7	43	0.34	59	6	09S	-0.82
		0.31	86	6	08S	-0.80
		0.2	106	4	06S	-0.82
		0.21	0	4	09S	-0.80
		0.23	0	4	08S	-0.66
		0.23	0	4	06S	-0.75
7	44	0.29	134	6	07S	+0.67
7	45	0.29	61	5	09S	-0.84
		0.21	0	4	09S	-0.75
7	47	0.46	37	8	09S	-0.82
		0.36	0	7	09S	-0.69
7	52	0.33	68	7	09S	-0.76
		0.33	75	7	10S	+0.00
7	53	0.4	80	7	13S	-0.80

Tubes In-Service with Through-Wall Indications 1% to 39%

OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
8	4	0.38	72	8	10S	-0.76
8	7	0.29	80	6	08S	-0.74
8	10	0.41	0	9	08S	+0.67
		0.35	122	8	08S	+0.59
8	15	0.49	89	10	07S	+0.63
8	17	0.19	92	4	09S	-0.77
		0.14	92	3	06S	-0.77
8	20	0.37	86	7	08S	-0.68
		0.73	0	12	08S	-0.65
		0.33	0	5	08S	+0.48
8	31	0.28	87	6	07S	+0.53
		0.33	0	5	07S	+0.66
		0.25	0	4	07S	-0.69
8	34	0.22	89	4	09S	-0.81
8	36	0.22	85	4	09S	-0.78
8	39	0.23	113	5	09S	-0.85
8	43	0.25	55	6	09S	-0.81
8	46	0.3	64	5	09S	-0.80
		0.45	24	8	07S	+0.64
		0.36	100	7	07S	-0.78
8	49	0.41	31	8	08S	+0.60
		0.24	46	5	08S	-0.83
8	51	0.32	66	7	09S	-0.78
8	52	0.31	84	6	09S	-0.75
		0.26	0	5	09S	-0.68
9	1	0.13	0	3	12S	-0.66
		0.31	0	6	12S	+0.66
		0.59	36	12	12S	-0.82
		0.46	70	9	09S	-0.77
9	2	0.21	101	5	12S	+0.64
9	4	0.43	100	10	09S	-0.79
9	5	0.55	99	11	07S	-0.72
		0.57	62	11	09S	-0.86
9	7	0.26	72	6	09S	-0.84
9	10	0.26	76	6	09S	-0.77
9	12	0.51	0	11	08S	-0.70
		0.42	62	9	08S	-0.82
9	13	0.39	59	8	08S	-0.70
		0.39	45	8	06S	-0.70
9	16	0.26	88	5	08S	+0.38
		0.18	57	4	06S	-0.70
9	17	0.53	71	11	09S	-0.86
9	18	0.37	48	8	08S	-0.79
9	21	0.24	91	5	08S	+0.25

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
9	38	0.27	121	6	09S	-0.73
		0.25	0	4	09S	-0.70
9	46	0.29	81	6	07S	-0.83
9	49	0.3	77	5	09S	-0.87
9	51	0.33	111	6	09S	-0.87
		0.21	0	4	09S	-0.70
9	52	0.27	95	6	08S	+0.69
		0.33	125	7	09S	-0.78
9	53	0.28	101	5	09S	-0.82
		0.2	0	4	09S	-0.76
9	54	0.4	65	8	09S	-0.78
10	2	0.3	84	7	03S	-0.77
		0.41	38	9	09S	-0.77
10	7	0.48	74	10	14S	-0.84
10	12	0.68	86	14	09S	-0.82
10	18	0.32	79	7	09S	-0.82
10	27	0.28	103	5	09S	-0.80
10	35	0.3	80	6	09S	-0.80
10	54	0.23	65	4	08S	-0.77
		0.19	0	4	08S	-0.65
11	2	0.41	47	9	10S	-0.85
11	9	0.29	73	6	08S	-0.79
11	10	0.28	107	6	08S	-0.82
11	55	0.44	63	8	08S	-0.78
11	57	0.39	85	7	09S	-0.82
		0.2	51	4	08S	+0.32
		0.22	0	4	08S	+0.34
11	59	0.49	90	9	09S	+0.64
11	68	0.25	67	4	07S	-0.68
		0.18	124	3	13S	-0.75
		0.41	0	8	13S	-0.68
12	1	0.41	121	8	13S	-0.86
		0.53	106	10	13S	+0.57
		0.43	128	9	08S	-0.81
12	4	0.22	0	4	13S	-0.74
		0.33	81	7	09S	-0.84
		0.36	70	8	13S	-0.82
12	6	0.36	97	8	09S	-0.82
12	7	0.3	82	6	09S	-0.88
		0.21	125	4	08S	-0.86
12	9	0.42	112	8	08S	-0.77
12	37	0.3	119	7	09S	-0.89
		0.2	80	5	07S	-0.90
		0.18	0	3	09S	-0.73

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
12	40	0.28	78	5	07S	-0.78
12	59	0.33	91	6	09S	-0.80
12	66	0.34	95	7	09S	-0.87
		0.4	101	8	10S	-0.81
13	1	0.3	0	6	08S	-0.72
		0.47	87	11	13S	-0.86
		0.3	73	8	08S	-0.77
13	3	0.28	0	6	13S	-0.67
		0.25	0	5	09S	-0.73
		0.25	113	6	09S	-0.84
		0.28	98	6	13S	-0.82
13	9	0.54	86	11	08S	-0.84
		0.32	60	7	09S	-0.84
13	10	0.25	63	5	03S	-0.77
13	20	0.49	93	10	07S	-0.81
13	22	0.44	84	9	07S	-0.77
13	27	0.3	76	7	03S	-0.78
13	36	0.21	83	4	08S	-0.80
13	43	0.83	98	17	09S	-0.73
13	70	0.37	147	5	09S	-0.74
13	72	0.23	131	3	09S	-0.77
		0.29	0	6	09S	+0.47
13	73	0.53	44	9	09S	-0.77
		0.18	130	4	09S	+0.71
13	74	0.21	143	3	07S	+0.72
14	5	0.36	90	7	09S	-0.82
14	6	0.44	0	9	08S	-0.75
		0.61	146	13	08S	-0.89
14	7	0.5	68	10	09S	-0.82
14	10	0.38	106	8	08S	-0.82
14	25	0.2	0	4	07S	-0.76
		0.27	69	6	07S	-0.81
		0.32	45	7	03S	-0.77
14	26	0.38	80	8	03S	-0.77
14	27	0.56	83	11	07S	-0.79
14	34	0.58	95	11	07S	-0.71
14	67	0.45	121	7	09S	-0.72
14	70	0.46	148	8	09S	-0.84
		0.68	39	12	07S	-0.78
		0.22	0	4	09S	-0.76
14	72	0.34	64	6	07S	-0.78
14	75	0.87	134	14	15S	-0.75
15	3	0.7	44	15	09S	-0.70
15	5	0.33	0	7	13S	-0.76

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.36	131	8	13S	-0.84
		0.31	95	7	08S	-0.87
15	6	0.3	0	6	07S	-0.72
		0.34	79	7	07S	-0.77
15	7	0.47	66	10	09S	-0.82
15	8	0.42	33	9	09S	-0.82
15	10	0.46	56	9	08S	-0.84
15	32	0.16	64	3	07S	-0.83
15	35	0.63	101	13	09S	-0.80
15	64	0.6	109	9	09S	-0.74
15	69	0.42	102	8	07S	+0.68
15	70	0.37	120	5	07S	+0.70
15	73	0.34	74	6	09S	-0.86
15	75	0.83	118	14	10S	-0.07
		0.76	28	13	07S	-0.73
		0.43	155	8	09S	+0.66
		0.49	73	9	09S	-0.80
16	6	0.48	49	10	09S	-0.82
16	10	0.45	54	9	09S	-0.82
16	22	0.12	107	28	LTS	+6.57
16	32	0.36	87	8	03S	-0.70
16	34	0.27	90	6	03S	-0.75
16	36	0.17	100	4	07S	-0.82
16	38	0.37	91	8	07S	-0.80
16	74	0.24	124	4	09S	-0.82
		0.26	0	5	09S	+0.61
		0.2	0	4	09S	-0.71
16	76	0.78	59	13	07S	-0.78
16	77	0.37	108	5	09S	+0.64
		0.17	87	2	08S	-0.70
		0.27	117	4	07S	-0.47
16	80	0.52	82	9	09S	-0.71
17	5	0.39	60	9	09S	-0.87
17	7	0.33	64	7	09S	-0.84
17	28	0.37	71	7	07S	-0.84
17	45	0.47	96	10	09S	-0.77
17	59	0.37	106	6	12S	-0.75
		0.27	0	5	12S	-0.68
17	65	0.36	93	6	09S	-0.75
		0.33	0	6	09S	-0.75
17	74	1.04	102	16	07S	-0.78
		0.31	124	5	09S	-0.85
17	75	0.34	106	6	09S	-0.72
		0.3	0	6	09S	+0.66

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.27	0	5	09S	-0.74
17	76	0.45	75	8	09S	-0.85
		0.31	0	6	09S	-0.73
17	77	0.24	88	4	09S	-0.82
17	78	0.33	126	6	09S	+0.53
18	4	0.4	0	8	09S	-0.70
		0.34	75	8	09S	-0.80
18	8	0.59	62	12	09S	+0.64
18	9	0.31	0	6	09S	-0.70
		0.29	74	7	09S	-0.87
18	14	0.25	93	5	08S	-0.79
18	17	0.37	99	8	03S	-0.77
18	21	0.45	78	10	03S	-0.77
18	30	0.17	0	3	09S	-0.72
		0.24	95	5	09S	-0.84
18	32	0.22	0	5	10S	-0.74
		0.37	84	8	10S	-0.85
18	39	0.25	92	5	09S	-0.80
18	43	0.31	79	7	07S	-0.80
18	47	0.26	102	6	06S	-0.84
18	75	0.47	118	8	09S	-0.74
		0.26	48	4	07S	-0.67
		0.28	0	5	07S	+0.73
		0.26	0	5	09S	-0.74
		0.25	0	5	07S	-0.71
18	76	0.34	140	6	07S	+0.59
		0.26	78	4	07S	-0.71
18	79	0.2	103	3	09S	+0.59
		0.49	100	8	09S	-0.72
19	5	0.38	143	9	09S	-0.80
19	6	0.63	48	14	09S	-0.84
19	7	0.57	42	13	08S	-0.84
		0.52	38	12	09S	-0.78
19	8	0.22	80	5	08S	-0.84
19	9	0.42	0	9	08S	-0.73
		0.33	103	7	08S	-0.82
19	11	0.25	0	5	08S	-0.76
		0.27	80	6	08S	-0.82
19	18	0.29	59	6	03S	-0.79
19	19	0.46	71	9	07S	-0.75
19	21	0.48	73	10	07S	-0.79
19	28	0.28	92	6	07S	-0.79
19	30	0.57	66	12	07S	-0.77
19	32	0.33	58	7	03S	-0.77

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.2	95	5	07S	-0.77
19	40	0.31	106	6	09S	-0.82
19	46	0.54	110	12	09S	-0.75
19	78	0.5	50	8	07S	-0.78
		0.7	69	11	09S	-0.83
19	79	0.33	87	6	09S	-0.72
19	80	0.56	109	9	09S	-0.85
20	5	0.43	97	10	08S	-0.86
20	6	0.42	88	10	08S	-0.87
		0.36	50	9	09S	-0.78
20	9	0.71	77	15	08S	-0.84
20	10	0.48	73	10	08S	-0.84
20	75	0.45	75	8	09S	-0.85
20	77	0.45	100	8	09S	-0.80
20	85	0.28	141	4	09S	-0.68
21	4	0.56	52	12	08S	-0.86
21	10	0.34	99	8	08S	-0.82
21	11	0.73	32	16	08S	-0.82
21	37	0.44	105	10	09S	-0.82
21	38	0.54	88	11	09S	-0.83
21	40	0.44	93	9	09S	-0.83
		0.27	94	5	07S	-0.78
21	81	0.94	88	16	07S	-0.65
		0.26	101	4	07S	+0.56
21	82	0.26	71	4	07S	+0.50
		0.44	92	7	09S	-0.82
		0.4	0	8	07S	+0.51
21	84	0.22	104	4	09S	-0.82
21	87	0.22	117	4	09S	-0.74
		0.4	0	8	09S	-0.70
22	4	0.34	0	7	08S	-0.71
		0.32	65	8	08S	-0.82
22	5	0.26	69	6	08S	-0.86
22	6	0.38	0	8	09S	-0.75
		0.33	67	8	09S	-0.82
22	35	0.42	83	10	07S	-0.79
22	36	0.34	86	6	09S	-0.81
22	84	0.22	96	4	07S	+0.71
		0.3	96	5	09S	-0.82
		0.26	0	5	07S	+0.66
22	85	0.29	112	5	08S	+0.24
22	93	0.3	123	5	09S	-0.73
23	5	0.56	53	13	08S	-0.84
23	10	0.37	140	8	08S	-0.86

Tubes In-Service with Through-Wall Indications 1% to 39%

OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.46	0	10	08S	-0.75
23	12	0.25	78	6	08S	-0.86
23	36	0.49	71	8	03S	-0.77
23	50	0.38	75	8	07S	-0.80
23	63	0.32	67	5	03S	-0.70
		0.31	84	5	05S	-0.66
		0.38	0	7	05S	-0.79
		0.45	0	9	03S	-0.76
23	83	0.47	97	8	09S	-0.70
23	85	0.3	124	5	09S	-0.74
23	86	0.23	113	4	07S	+0.64
		0.35	92	6	09S	-0.82
		0.13	0	3	09S	-0.71
		0.25	0	5	07S	+0.67
23	88	0.26	100	5	09S	-0.89
23	91	0.38	25	6	09S	+0.69
		0.26	81	4	09S	-0.80
24	4	0.47	79	11	08S	-0.86
24	43	0.36	98	8	03S	-0.70
		0.22	131	31	LTS	+39.00
24	58	0.16	73	3	06S	-0.80
		0.17	0	2	06S	-0.73
24	93	0.32	102	5	09S	-0.71
24	95	0.21	0	4	13S	-0.75
		0.25	111	4	13S	-0.73
		0.23	116	3	07S	-0.66
25	8	0.28	99	6	09S	+0.64
		0.43	0	9	09S	+0.56
25	10	1.09	96	22	09S	+0.60
25	14	0.24	113	6	08S	-0.80
25	38	0.64	86	11	09S	-0.77
25	39	0.53	76	12	03S	-0.75
25	86	0.31	103	5	09S	-0.72
		0.28	0	5	09S	-0.78
25	92	0.32	98	5	07S	+0.74
26	5	0.29	88	7	09S	-0.77
		0.52	166	12	09S	+0.50
26	7	0.31	130	7	08S	-0.79
		0.3	130	7	09S	-0.86
26	9	0.49	98	11	09S	+0.64
26	23	0.35	66	6	03S	-0.81
26	26	0.24	74	6	03S	-0.77
		0.3	75	7	07S	-0.84
26	93	0.15	102	2	08S	+0.05

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
26	94	0.27	91	4	07S	+0.73
26	97	0.27	73	4	08S	-0.71
26	98	0.38	36	5	07S	-0.78
27	2	0.16	58	4	03S	-0.77
27	5	0.42	64	10	09S	-0.78
		0.32	123	8	09S	+0.57
27	6	0.43	49	10	07S	+0.73
		0.29	138	7	08S	+0.64
		0.39	83	9	08S	-0.84
27	9	0.33	79	8	08S	-0.86
27	10	0.34	100	8	08S	-0.79
27	21	0.17	65	3	09S	-0.76
		0.21	0	4	09S	-0.76
27	32	0.5	77	11	05S	-0.75
27	40	0.31	77	7	03S	-0.77
27	42	0.36	92	8	03S	-0.77
27	45	0.34	64	7	03S	-0.77
27	94	0.58	115	8	08S	+0.60
		0.64	84	9	09S	+0.62
27	95	0.56	110	9	08S	+0.64
27	98	0.27	66	4	09S	-0.71
28	4	0.56	86	13	03S	-0.84
28	5	0.36	39	6	07S	-0.66
28	6	0.27	77	7	09S	-0.78
28	13	0.43	61	7	05S	-0.70
28	30	0.41	43	7	03S	-0.79
28	38	0.21	89	4	09S	-0.75
28	94	0.56	82	8	08S	-0.64
		0.4	85	6	08S	+0.69
28	96	0.37	0	7	07S	-0.58
		0.39	133	6	07S	-0.53
29	6	0.48	102	7	08S	-0.81
29	7	0.29	101	7	07S	+0.71
29	9	0.37	70	9	08S	-0.82
29	17	0.29	60	4	03S	-0.72
29	42	0.33	81	8	03S	-0.77
29	95	0.3	70	4	08S	-0.75
29	100	0.23	100	4	09S	-0.75
29	101	0.38	75	5	09S	+0.67
30	7	0.24	138	4	07S	-0.78
		0.26	68	4	08S	-0.81
30	9	0.19	54	3	08S	-0.77
30	11	0.23	81	3	08S	-0.75
30	14	0.63	55	14	09S	-0.78

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
30	37	0.3	116	6	09S	-0.83
		0.25	0	5	09S	-0.80
30	41	0.48	81	8	03S	-0.75
30	100	0.27	92	4	07S	+0.66
31	5	0.49	67	12	03S	-0.80
31	6	0.3	105	4	07S	+0.75
		0.24	70	4	09S	-0.77
31	7	0.43	93	10	08S	-0.83
31	8	0.35	85	5	07S	+0.73
31	12	0.17	86	2	08S	-0.73
31	22	0.41	133	9	07S	-0.81
31	42	1.19	84	18	09S	-0.74
31	58	0.27	61	7	03S	-0.75
32	6	0.86	77	13	03S	-0.68
32	7	0.27	0	6	08S	-0.75
		0.24	109	6	08S	-0.80
32	8	0.2	113	3	08S	-0.73
32	9	0.38	39	9	03S	-0.80
32	11	0.43	59	10	08S	-0.80
32	15	0.74	85	16	09S	-0.73
32	25	0.54	63	9	03S	-0.75
		0.59	30	10	09S	-0.81
		0.17	0	3	09S	-0.76
32	35	0.64	75	11	09S	-0.77
32	89	0.23	62	6	05S	-0.80
32	106	0.32	113	5	10S	+0.21
33	6	0.36	49	6	08S	-0.72
33	8	0.21	95	3	08S	-0.75
		0.43	106	7	07S	+0.75
33	27	0.42	64	7	09S	-0.79
		0.28	0	6	09S	-0.65
33	47	0.33	93	8	09S	-0.78
33	70	0.27	77	6	07S	-0.80
34	7	0.36	48	9	09S	-0.78
34	11	0.41	34	10	08S	-0.80
35	8	0.67	63	14	09S	+0.51
35	20	0.72	70	16	04S	-0.75
35	42	0.85	71	18	09S	-0.79
35	60	0.22	89	5	06S	-0.79
35	108	0.88	78	14	07S	-0.66
36	5	0.28	78	6	09S	+0.58
36	9	0.22	93	5	09S	-0.75
36	10	0.41	76	9	09S	+0.60
36	11	0.27	78	6	08S	-0.80

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
36	12	0.2	86	4	08S	-0.77
36	19	0.6	91	13	09S	-0.75
		0.38	59	8	03S	-0.82
36	36	0.42	111	7	07S	-0.77
36	47	0.8	91	16	07S	-0.77
36	57	0.55	108	8	09S	-0.70
36	64	0.24	85	6	03S	-0.72
36	92	0.29	86	6	03S	-0.79
37	6	0.52	78	11	05S	-0.78
37	8	0.44	103	9	07S	+0.64
37	12	0.51	79	11	09S	-0.78
		0.28	57	6	08S	-0.75
37	18	0.43	78	9	03S	-0.73
37	21	0.24	120	5	07S	-0.82
37	48	0.61	86	13	07S	-0.74
37	114	0.37	64	6	09S	-0.73
		0.2	90	3	05S	-0.75
38	4	0.34	112	7	09S	+0.53
38	8	0.42	86	9	08S	-0.75
38	10	0.39	103	9	09S	+0.58
38	11	0.35	93	8	08S	-0.75
38	27	0.37	68	7	03S	-0.77
38	38	0.44	96	10	09S	-0.79
38	45	0.38	165	28	LTS	+9.63
		0.33	78	6	07S	-0.79
38	62	0.28	73	7	03S	-0.72
38	64	0.18	127	32	LTS	+8.05
38	70	0.42	77	10	03S	-0.76
38	75	0.16	127	4	07S	-0.77
39	8	0.61	120	13	07S	+0.68
39	9	0.53	68	11	07S	+0.75
39	11	0.45	61	10	09S	+0.51
39	34	0.42	82	9	09S	-0.79
39	49	0.59	81	12	03S	-0.76
39	52	0.51	75	11	09S	-0.79
39	61	0.62	78	13	09S	-0.75
39	116	0.52	66	8	09S	-0.71
40	5	0.4	122	9	09S	+0.64
40	6	0.38	84	9	09S	-0.73
		0.44	0	10	09S	-0.75
40	8	0.42	86	10	07S	+0.68
40	9	0.51	57	11	07S	+0.52
40	35	0.39	61	9	02S	-0.75
40	45	0.19	154	28	LTS	+14.99

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.27	44	29	LTS	+8.41
40	46	0.22	144	31	LTS	+10.17
40	49	0.4	88	9	07S	-0.79
40	52	0.51	80	11	07S	-0.83
40	117	0.19	0	4	13S	+0.66
		0.2	0	4	13S	-0.75
		0.21	105	3	13S	-0.76
41	4	0.43	52	10	09S	+0.69
41	7	0.4	118	9	07S	+0.62
41	8	0.3	148	7	07S	+0.63
41	11	0.36	59	8	08S	-0.75
41	38	0.88	105	18	09S	-0.75
41	39	0.16	80	27	LTS	+10.94
41	56	0.34	73	8	03S	-0.77
42	7	0.25	86	6	07S	+0.68
42	11	0.5	45	12	03S	-0.70
		0.3	43	7	09S	+0.60
42	28	0.38	71	9	09S	-0.75
42	34	0.19	137	28	LTS	+8.83
42	42	0.31	146	32	LTS	+10.62
		0.16	86	32	LTS	+7.80
		0.09	130	24	LTS	+7.26
42	47	0.1	90	33	LTS	+11.04
42	63	0.15	119	28	LTS	+13.54
		0.19	138	25	LTS	+9.11
42	69	0.55	82	11	03S	-0.74
42	113	0.51	47	8	09S	-0.71
43	3	0.49	62	11	09S	+0.64
43	4	0.25	53	6	05S	+0.68
43	6	0.32	68	8	07S	+0.66
43	7	0.56	31	12	09S	-0.77
		0.35	89	8	07S	+0.61
43	8	0.31	97	7	09S	-0.77
43	9	0.25	95	6	03S	-0.80
43	19	0.41	84	9	09S	-0.77
43	26	0.63	50	12	07S	-0.79
43	33	0.47	115	10	09S	-0.79
43	44	0.42	75	9	03S	-0.79
43	48	0.08	166	17	LTS	+26.21
		0.12	98	27	LTS	+10.74
43	82	0.12	138	29	LTS	+4.26
43	116	0.44	41	6	03S	-0.65
44	1	0.22	0	5	12S	-0.74
		0.23	111	6	12S	-0.84

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
44	7	0.31	99	7	07S	+0.66
44	8	0.31	126	7	08S	+0.66
		0.5	53	11	09S	-0.80
44	22	0.41	65	10	03S	-0.75
44	38	0.26	88	4	05S	-0.72
45	3	0.41	84	10	09S	+0.62
45	7	0.6	106	13	07S	+0.66
45	8	0.39	77	9	09S	+0.60
45	35	1.14	88	19	07S	-0.77
45	40	0.3	145	31	LTS	+13.18
		0.78	175	31	LTS	+12.41
		0.29	154	30	LTS	+8.82
45	48	0.18	131	32	LTS	+13.66
45	49	0.2	137	34	LTS	+13.45
45	54	0.3	48	7	07S	-0.79
		0.19	0	4	07S	-0.79
45	55	0.35	84	8	07S	-0.77
45	118	0.18	44	3	07S	-0.73
46	6	0.4	107	9	07S	+0.57
46	7	0.34	86	8	07S	+0.59
46	8	0.41	42	10	09S	+0.55
46	12	0.34	79	8	03S	-0.77
46	41	0.31	122	36	LTS	+8.68
46	48	0.19	80	4	03S	-0.66
		0.34	0	7	03S	-0.71
46	49	0.13	100	24	LTS	+14.27
46	52	0.25	76	6	07S	-0.79
46	55	0.35	56	8	03S	-0.77
		0.43	0	9	03S	-0.63
46	67	0.54	87	12	07S	-0.77
46	116	0.28	75	4	09S	-0.76
47	3	0.27	30	7	08S	-0.80
47	5	0.37	0	8	07S	+0.63
		0.37	112	9	07S	+0.59
47	6	0.28	63	7	09S	-0.82
		0.36	78	9	07S	+0.70
		0.27	0	6	09S	-0.74
47	7	0.61	92	13	07S	+0.64
47	8	0.31	60	7	07S	+0.64
		0.42	62	10	09S	-0.75
47	10	0.2	104	5	09S	-0.80
		0.32	0	7	09S	-0.73
47	38	0.34	81	7	05S	-0.70
47	53	0.41	74	10	07S	-0.83

Tubes In-Service with Through-Wall Indications 1% to 39%

OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
47	78	0.34	47	8	06S	+0.69
48	7	0.64	78	14	07S	+0.64
48	9	0.47	0	10	09S	+0.57
		0.39	0	8	07S	+0.62
		0.31	87	7	07S	+0.66
		0.55	44	12	09S	+0.65
48	35	0.36	99	8	09S	-0.82
48	43	0.15	139	28	LTS	+14.75
		0.14	129	28	LTS	+12.16
		0.19	102	32	LTS	+11.47
		0.08	135	23	LTS	+9.32
		0.32	160	30	LTS	+8.83
48	61	0.18	154	19	LTS	+7.40
48	64	0.68	28	14	09S	-0.72
48	72	0.11	138	24	LTS	+9.09
49	4	0.28	73	7	08S	+0.64
49	6	0.24	90	6	07S	+0.68
		0.25	0	5	07S	+0.71
49	8	0.32	74	8	07S	+0.68
49	52	0.35	58	6	03S	-0.69
		0.37	0	8	03S	-0.75
49	56	0.09	133	24	LTS	+11.98
		0.16	158	20	LTS	+6.22
49	78	0.33	65	8	12S	-0.48
49	119	0.38	76	6	06S	+0.74
49	121	0.36	55	5	09S	-0.74
50	1	0.54	33	12	04S	+0.64
50	3	0.29	103	7	09S	-0.80
50	4	0.32	111	8	09S	+0.58
50	6	0.26	75	6	09S	+0.67
		0.31	25	7	09S	-0.85
50	13	0.57	52	13	03S	-0.73
50	25	0.4	84	9	07S	-0.79
50	37	0.34	115	8	03S	-0.68
51	6	0.32	89	8	09S	-0.80
51	17	0.36	75	8	07S	-0.79
51	30	0.41	145	35	LTS	+10.58
51	37	0.67	85	12	09S	-0.72
51	50	0.32	71	6	07S	-0.67
51	55	0.23	137	35	LTS	+7.83
51	79	0.32	139	36	LTS	+13.56
		0.18	134	32	LTS	+9.84
51	80	0.19	131	31	LTS	+8.62
52	6	0.48	99	11	07S	+0.62

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.32	36	8	09S	-0.82
		0.33	71	7	09S	-0.73
52	7	0.45	111	10	07S	+0.66
		0.28	72	7	07S	-0.71
52	8	0.36	35	8	07S	+0.69
52	28	0.46	81	9	07S	-0.74
52	30	0.6	89	11	10S	-0.80
52	37	0.05	45	22	LTS	+17.62
		0.19	154	28	LTS	+13.85
		0.13	62	25	LTS	+13.42
		0.13	155	26	LTS	+13.19
52	46	0.44	79	8	07S	-0.77
52	49	0.21	143	28	LTS	+14.72
53	7	0.33	66	8	09S	+0.64
53	26	0.26	69	6	03S	-0.73
53	32	0.38	70	7	07S	-0.77
53	36	0.54	65	12	09S	-0.75
53	44	0.12	128	25	LTS	+11.00
		0.18	99	31	LTS	+10.67
		0.28	129	35	LTS	+9.70
		0.12	127	24	LTS	+8.10
53	57	0.3	66	6	07S	-0.76
53	59	0.29	70	6	07S	-0.78
53	123	0.28	84	3	08S	-0.70
53	124	0.4	65	5	09S	-0.77
54	6	0.45	97	10	07S	+0.68
54	7	0.43	61	9	07S	+0.68
54	28	0.2	72	5	05S	-0.77
54	58	0.37	84	8	09S	-0.80
54	82	0.28	123	36	LTS	+10.77
		0.23	146	24	LTS	+9.71
		0.1	107	26	LTS	+6.19
54	114	0.29	97	4	07S	-0.82
54	121	0.6	71	7	07S	-0.70
54	124	0.37	74	5	09S	-0.71
55	87	0.33	74	9	11S	+0.67
56	4	0.32	117	7	08S	+0.66
56	21	0.29	103	7	05S	-0.68
56	37	0.18	86	27	LTS	+11.40
		0.34	147	32	LTS	+8.64
56	39	0.86	75	17	07S	-0.77
56	45	0.24	135	5	07S	-0.79
56	53	0.2	158	27	LTS	+14.38
		0.15	165	24	LTS	+13.46

Tubes In-Service with Through-Wall Indications 1% to 39%

OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.29	132	33	LTS	+11.52
		0.24	143	32	LTS	+5.65
56	78	0.37	78	10	01S	-0.80
56	111	0.3	54	4	07S	-0.72
		0.17	0	4	07S	-0.71
56	122	0.56	102	6	07S	-0.73
56	124	0.32	114	4	05S	-0.75
56	127	0.32	82	4	07S	-0.70
57	33	0.22	144	34	LTS	+27.06
		0.24	144	29	LTS	+14.22
57	39	0.59	82	13	07S	-0.81
57	89	0.12	120	22	LTS	+10.31
		0.1	137	20	LTS	+7.43
		0.12	135	25	LTS	+7.23
		0.19	128	28	LTS	+6.74
57	122	0.51	80	6	07S	-0.70
57	126	0.6	87	7	07S	-0.73
58	8	0.17	90	3	03S	-0.71
58	33	0.22	52	32	LTS	+15.51
		0.11	44	19	LTS	+11.39
		0.25	156	30	LTS	+8.90
58	39	0.29	95	6	03S	-0.81
58	71	0.34	60	5	07S	-0.68
58	78	0.32	74	7	07S	-0.71
58	86	0.3	84	7	07S	-0.75
58	89	0.25	132	34	LTS	+5.92
58	101	0.24	100	5	07S	-0.80
58	124	0.33	132	4	08S	-0.70
		0.2	0	4	08S	-0.68
58	125	0.36	65	4	07S	-0.71
		0.43	102	5	08S	-0.77
		0.26	0	6	07S	+0.64
		0.14	0	3	07S	-0.76
59	1	0.66	99	14	09S	-0.75
59	5	0.45	50	10	09S	-0.79
59	7	0.28	89	6	07S	+0.66
59	30	0.29	159	32	LTS	+9.85
59	40	0.11	126	29	LTS	+9.30
59	45	0.37	99	8	07S	-0.79
59	56	0.51	76	9	07S	-0.75
59	80	0.2	130	27	LTS	+12.38
59	113	0.61	87	8	07S	-0.74
59	118	0.42	93	5	07S	-0.68
59	121	0.42	42	5	09S	-0.72

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
59	122	0.63	77	7	07S	-0.75
		0.98	100	11	09S	-0.71
60	6	0.22	127	5	03S	-0.73
60	34	0.18	67	31	LTS	+15.66
60	44	0.17	138	26	LTS	+8.34
60	48	0.48	84	11	07S	-0.74
60	52	0.22	51	4	07S	-0.69
60	70	0.24	81	6	05S	+0.66
60	117	0.62	83	7	07S	-0.70
60	119	1.27	91	14	07S	-0.68
60	120	0.35	69	4	03S	-0.69
60	124	0.36	72	5	07S	-0.72
60	126	0.35	85	4	09S	-0.76
		0.33	0	7	09S	-0.71
60	127	0.52	32	6	07S	-0.68
		0.33	67	4	08S	-0.77
61	1	0.29	115	6	09S	-0.73
61	21	0.34	82	8	03S	-0.70
61	25	0.35	150	34	LTS	+8.09
		0.28	133	32	LTS	+6.87
61	27	0.41	66	9	09S	-0.73
		0.25	146	36	LTS	+9.94
61	28	0.39	54	9	07S	-0.78
61	42	0.89	80	18	07S	-0.72
61	44	0.37	96	9	03S	-0.79
61	46	0.13	141	21	LTS	+8.27
61	50	0.3	56	6	07S	-0.69
61	68	0.19	46	5	05S	+0.68
61	82	0.14	138	20	LTS	+12.29
		0.27	131	33	LTS	+8.41
61	88	0.15	113	28	LTS	+6.05
61	124	0.29	125	5	09S	+0.71
62	6	0.36	0	8	07S	+0.61
		0.39	57	9	07S	+0.66
62	13	0.5	71	11	03S	-0.82
62	28	0.09	103	23	LTS	+11.38
		0.48	147	33	LTS	+10.60
		0.15	138	25	LTS	+9.95
		0.22	135	35	LTS	+8.22
62	44	0.1	148	32	LTS	+11.81
		0.19	137	25	LTS	+9.74
62	56	0.19	50	4	07S	-0.73
62	58	0.23	68	4	09S	+0.83
62	83	0.32	50	5	02S	+0.81

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.27	0	5	02S	+0.80
62	99	0.12	131	29	LTS	+10.14
		0.2	133	34	LTS	+9.32
62	103	0.3	92	7	07S	-0.77
62	115	0.32	91	5	14S	-0.85
62	122	0.32	63	5	05S	+0.61
62	127	0.23	0	5	08S	-0.77
		0.19	74	3	08S	-0.71
63	1	0.36	93	8	12S	-0.82
63	7	0.36	0	8	08S	-0.75
		0.28	57	7	08S	-0.80
63	12	0.56	66	12	04S	+0.76
63	19	0.43	77	10	03S	-0.75
63	25	0.44	60	10	05S	-0.75
63	26	0.33	170	29	LTS	+27.63
		0.15	142	32	LTS	+11.64
63	34	0.82	91	16	07S	-0.70
63	41	0.23	145	30	LTS	+13.75
		0.27	129	31	LTS	+12.41
63	69	1.44	85	26	07S	-0.75
63	113	0.29	88	5	04S	+0.68
63	117	0.38	82	7	05S	+0.64
63	124	0.17	49	3	04S	+0.73
63	125	0.41	86	7	08S	-0.75
		0.3	100	5	07S	+0.64
64	5	0.46	95	10	09S	-0.78
64	8	0.26	102	6	09S	+0.67
64	34	0.33	0	7	04S	+0.75
		0.43	72	9	05S	-0.75
		0.3	55	6	04S	+0.68
64	42	0.23	122	34	LTS	+12.05
64	68	0.45	100	10	07S	-0.75
64	77	0.37	74	8	07S	-0.75
64	105	0.21	71	4	14S	-0.79
		0.19	0	4	14S	-0.72
64	121	0.45	83	7	04S	+0.77
65	1	0.3	96	7	14S	-0.78
65	8	0.46	28	10	03S	-0.78
65	37	0.26	144	33	LTS	+17.03
		0.17	90	30	LTS	+16.51
		0.13	146	25	LTS	+12.86
		0.16	113	29	LTS	+12.45
		0.23	109	30	LTS	+10.58
		0.23	86	34	LTS	+8.48

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.06	82	12	LTS	+6.95
65	42	0.12	49	23	LTS	+6.72
65	44	0.19	62	28	LTS	+14.34
		0.19	132	26	LTS	+11.55
65	50	0.13	117	31	LTS	+13.71
		0.1	83	24	LTS	+12.54
		0.48	55	11	07S	-0.72
65	52	0.4	54	7	09S	-0.64
		0.26	0	5	09S	-0.68
65	71	0.28	25	6	07S	-0.73
		0.24	63	5	09S	-0.77
		0.13	0	4	09S	-0.71
65	112	0.45	86	7	04S	+0.71
65	113	0.45	83	8	04S	+0.77
65	115	0.58	84	11	04S	+0.86
65	116	0.19	0	4	05S	+0.67
		0.24	118	4	05S	+0.70
65	119	1.11	91	21	05S	+0.82
65	121	0.6	85	11	05S	+0.81
65	122	0.58	81	9	05S	+0.70
65	125	0.27	77	4	04S	+0.68
65	127	0.63	84	12	09S	-0.70
		0.29	109	5	07S	+0.75
		0.35	54	6	07S	-0.70
		0.5	0	10	07S	+0.69
66	1	0.37	0	8	13S	+0.61
		0.9	41	18	13S	+0.52
66	4	0.49	46	11	09S	+0.60
66	5	0.42	72	10	09S	-0.75
66	34	0.12	112	29	LTS	+12.61
		0.04	80	23	LTS	+8.77
66	37	0.88	92	17	09S	-0.82
66	57	0.22	68	3	07S	-0.66
		0.32	0	7	07S	-0.74
66	58	0.55	76	9	07S	-0.70
66	72	0.33	81	8	07S	-0.73
66	106	0.48	94	11	07S	-0.80
66	111	0.65	93	12	05S	+0.66
66	112	0.34	0	8	05S	+0.74
		0.27	87	4	05S	+0.75
66	126	0.63	90	10	04S	+0.61
67	5	0.53	85	12	09S	-0.77
67	26	0.23	105	5	09S	+0.74
67	33	0.85	88	17	07S	-0.72

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
67	38	0.32	71	7	09S	+0.71
67	40	0.49	37	10	09S	+0.69
67	42	0.53	64	11	09S	+0.67
67	47	0.34	98	7	09S	+0.73
67	49	0.29	98	6	09S	-0.68
67	50	0.22	74	37	LTS	+11.94
67	52	0.85	62	14	07S	-0.69
67	54	0.17	73	3	09S	-0.66
67	55	0.75	61	13	09S	+0.81
67	59	0.34	73	5	09S	+0.73
67	62	0.22	78	3	09S	+0.73
		0.37	0	8	09S	+0.66
67	64	0.24	57	5	09S	+0.73
		0.13	0	6	09S	+0.73
67	70	0.27	75	6	03S	-0.77
67	112	0.45	95	7	05S	+0.70
		0.33	88	5	04S	+0.75
67	113	0.36	80	6	04S	+0.88
67	123	0.33	0	8	08S	-0.69
		0.39	49	7	08S	-0.68
67	125	0.53	84	10	07S	-0.70
67	126	0.51	0	12	07S	-0.67
		0.41	104	6	07S	-0.64
		0.5	95	8	09S	+0.73
68	21	1.15	90	21	08S	-0.79
68	30	0.26	92	6	07S	-0.73
68	33	0.59	86	13	07S	-0.77
68	38	0.17	143	28	LTS	+16.81
		0.19	139	28	LTS	+15.53
		0.25	147	26	LTS	+13.68
		0.24	73	33	LTS	+11.59
		0.16	121	28	LTS	+10.08
		0.59	44	12	09S	+0.65
68	42	0.83	71	17	09S	+0.69
68	45	0.55	75	11	09S	+0.64
68	47	0.66	107	14	09S	+0.71
68	48	0.72	69	14	09S	+0.69
68	49	0.6	99	13	09S	+0.71
68	50	0.57	114	12	09S	+0.71
		0.32	134	7	07S	-0.77
		0.35	133	7	09S	-0.68
68	51	0.41	88	9	09S	-0.70
		0.66	67	14	09S	+0.69
68	52	0.35	118	7	09S	+0.78

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.45	95	9	09S	-0.70
68	53	0.62	84	11	09S	+0.77
		0.41	66	7	09S	-0.60
68	54	0.57	79	10	07S	-0.69
68	56	0.43	85	8	09S	+0.74
68	57	0.3	95	5	09S	+0.69
68	58	0.19	81	3	09S	+0.80
68	59	0.44	88	7	09S	+0.78
		0.44	72	7	09S	-0.64
		0.31	63	5	07S	-0.68
68	60	0.28	79	4	09S	+0.76
		0.32	65	5	09S	-0.64
68	61	0.43	89	7	09S	+0.78
68	62	0.34	90	5	09S	+0.78
		0.29	77	5	09S	-0.59
68	63	0.24	83	4	09S	+0.80
68	64	0.48	89	11	09S	+0.69
68	69	0.21	70	5	07S	-0.77
68	99	0.38	67	35	LTS	+11.41
		0.36	159	36	LTS	+8.22
68	102	0.26	85	6	07S	-0.75
68	111	0.34	98	6	04S	+0.63
68	125	0.73	88	14	05S	-0.43
68	127	0.38	0	9	07S	-0.47
		0.36	129	6	07S	-0.50
68	129	0.43	71	8	09S	-0.71
		0.17	130	2	09S	+0.67
69	8	0.44	78	10	12S	-0.77
69	14	0.51	0	11	03S	-0.75
		0.35	86	8	03S	-0.77
69	15	0.31	87	7	04S	+0.68
69	17	0.26	85	6	03S	+0.66
		0.38	50	9	03S	-0.80
69	40	0.35	84	8	09S	+0.71
69	42	0.3	147	38	LTS	+13.88
69	44	0.47	0	10	09S	+0.68
		0.66	37	13	09S	+0.69
69	45	0.81	86	17	09S	+0.73
69	46	0.61	106	12	09S	+0.64
		0.31	93	7	07S	-0.79
69	47	0.79	100	16	09S	+0.69
69	48	0.58	86	12	09S	+0.69
		0.18	98	4	09S	-0.68
69	49	0.58	27	13	05S	+0.66

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.69	51	15	09S	-0.70
		0.89	71	18	09S	+0.64
69	50	0.47	86	10	09S	+0.67
		0.34	87	7	09S	-0.70
69	51	0.81	77	17	09S	+0.69
		0.27	117	6	09S	-0.68
69	52	0.58	53	12	09S	+0.69
		0.38	65	8	09S	-0.66
69	53	0.45	90	8	09S	+0.84
		0.46	0	10	09S	+0.73
69	54	0.58	88	10	09S	+0.77
		1.32	64	21	09S	-0.65
69	55	0.77	81	13	09S	+0.79
		0.43	125	8	09S	-0.65
		0.29	50	5	04S	+0.76
69	56	1.07	80	17	09S	-0.62
		1.03	93	17	07S	-0.64
69	57	0.21	91	3	09S	+0.82
69	58	0.56	91	9	09S	+0.78
		0.32	71	5	09S	-0.64
69	59	1.14	78	17	09S	+0.73
		0.43	75	7	09S	-0.64
69	60	0.7	86	11	09S	+0.73
		0.45	75	7	09S	-0.55
69	61	0.36	83	6	09S	+0.80
69	62	0.39	88	6	09S	+0.78
		0.24	84	4	09S	-0.64
69	63	0.27	97	4	09S	+0.76
69	64	0.31	87	7	09S	+0.69
		0.23	46	5	04S	+0.73
69	69	0.18	87	4	06S	+0.61
69	70	0.23	67	5	06S	+0.73
		0.22	70	5	04S	+0.66
69	72	0.19	79	4	08S	-0.70
		0.23	82	5	07S	+0.64
		0.32	115	7	11S	-0.55
69	111	0.27	116	4	05S	+0.68
69	116	0.37	121	7	05S	+0.63
69	126	0.5	78	9	09S	-0.55
		0.36	83	6	04S	+0.84
		0.16	108	2	09S	+0.64
69	128	0.44	118	8	07S	-0.88
70	6	0.4	44	9	07S	-0.86
70	38	0.25	142	36	LTS	+17.80

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.12	127	36	LTS	+15.77
		0.17	150	32	LTS	+15.49
		0.38	167	32	LTS	+14.15
		0.32	77	7	09S	-0.73
70	47	0.69	75	15	09S	+0.66
		0.21	154	5	09S	-0.59
70	48	0.75	46	15	09S	-0.75
70	49	0.6	104	13	09S	+0.73
		0.39	146	9	09S	-0.70
70	50	0.57	57	12	09S	+0.51
70	52	0.65	71	13	09S	+0.60
		0.32	95	7	09S	-0.75
70	53	0.47	71	11	09S	-0.72
		0.49	92	11	09S	+0.66
70	54	0.49	76	10	09S	-0.75
70	58	0.3	88	5	09S	+0.76
		0.46	82	7	09S	-0.59
		0.16	99	33	LTS	+31.04
70	59	0.82	89	13	09S	+0.78
		0.41	77	6	09S	-0.61
70	60	0.31	86	5	09S	+0.80
70	61	0.84	95	13	09S	+0.73
		0.46	96	7	09S	-0.59
		0.19	75	3	07S	-0.68
		0.25	0	5	07S	-0.75
70	62	0.55	91	9	09S	+0.80
70	63	0.24	96	6	09S	+0.67
		0.17	68	4	09S	-0.73
70	65	0.15	77	4	10S	-0.83
70	68	0.7	84	15	07S	-0.77
		0.16	69	4	04S	+0.68
70	70	0.16	64	4	09S	-0.80
70	110	0.26	81	4	04S	+0.73
70	111	0.41	90	7	05S	+0.72
		0.66	85	12	04S	+0.79
70	128	0.42	123	7	09S	+0.73
71	6	0.22	0	5	03S	-0.75
		0.42	35	10	03S	-0.81
71	26	0.55	60	12	07S	+0.70
71	38	0.82	87	16	07S	-0.77
71	42	0.41	0	9	09S	+0.62
		0.49	43	10	09S	+0.64
71	43	0.71	77	15	09S	+0.71
71	46	0.64	0	14	09S	+0.67

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.47	138	10	09S	+0.64
71	49	0.52	79	12	09S	+0.64
71	50	0.45	62	9	09S	-0.64
71	51	0.71	71	15	03S	-0.75
		0.71	72	15	09S	+0.64
71	54	0.35	75	8	09S	+0.73
71	55	0.81	46	17	07S	-0.77
		0.32	76	8	09S	-0.72
71	57	0.2	79	3	09S	+0.73
71	58	0.18	81	3	09S	+0.78
71	59	0.3	86	5	09S	+0.77
71	60	0.29	89	5	09S	-0.61
71	61	0.18	94	3	09S	+0.75
71	62	0.43	95	7	09S	+0.78
71	63	0.24	98	6	09S	+0.69
71	71	0.24	93	6	08S	-0.77
71	82	0.33	51	8	07S	-0.75
		0.3	0	6	07S	-0.69
71	86	0.19	79	4	04S	+0.70
		0.23	0	4	04S	+0.63
71	95	0.16	112	28	LTS	+7.00
71	111	0.52	0	12	05S	+0.71
		0.3	87	5	05S	+0.84
72	2	0.3	74	7	13S	-0.79
72	39	0.64	77	14	12S	+0.68
72	41	0.54	60	12	09S	+0.66
72	43	0.67	50	14	09S	+0.59
72	46	0.66	74	13	07S	-0.84
72	50	0.36	89	8	07S	-0.81
		0.39	68	9	09S	+0.66
		0.23	0	5	09S	+0.74
72	51	0.36	64	8	09S	+0.67
72	53	0.41	0	9	09S	+0.70
		0.59	37	12	09S	+0.62
72	54	0.66	113	13	09S	+0.66
		0.51	67	11	09S	-0.70
72	57	0.23	101	4	09S	+0.79
		0.44	85	7	09S	-0.65
		0.33	73	5	07S	-0.67
72	58	0.55	85	9	09S	+0.73
		0.26	100	4	09S	-0.56
72	64	0.32	84	7	10S	-0.80
		0.21	0	6	10S	-0.75
72	65	0.42	91	9	07S	-0.77

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
72	67	0.51	76	11	03S	-0.75
72	107	0.21	98	3	04S	+0.71
72	129	0.58	84	9	10S	-0.52
73	44	0.18	58	27	LTS	+24.16
		0.46	0	10	09S	+0.63
		0.42	61	9	09S	+0.62
73	46	0.26	137	6	09S	+0.69
73	48	0.4	43	8	09S	+0.64
73	51	0.48	107	11	03S	-0.79
73	53	0.3	51	7	09S	-0.72
		0.42	56	10	09S	+0.73
73	56	0.35	0	7	09S	-0.60
		0.55	66	11	07S	-0.77
		0.55	146	11	09S	-0.68
73	57	0.24	111	4	09S	+0.72
73	58	0.15	96	2	09S	+0.70
		0.22	96	3	09S	-0.65
		0.41	80	6	07S	-0.74
73	65	0.29	76	7	04S	+0.71
73	67	0.25	102	6	07S	-0.80
73	70	0.25	71	6	09S	-0.80
		0.14	0	4	09S	-0.75
73	82	0.42	48	9	07S	+0.68
73	108	0.29	0	6	05S	+0.74
		0.34	86	6	05S	+0.72
73	128	0.46	60	8	10S	-0.75
		0.33	116	6	09S	+0.77
74	53	0.63	22	13	03S	+0.72
74	64	0.26	60	6	05S	+0.71
74	70	0.2	93	5	07S	-0.77
75	21	0.26	71	6	07S	-0.83
		0.1	0	4	07S	-0.75
75	24	0.34	70	8	04S	+0.68
75	26	0.48	57	11	07S	-0.83
75	51	0.34	103	8	03S	-0.81
75	66	0.3	77	7	10S	-0.78
75	105	0.15	83	2	02S	+0.87
75	123	0.3	0	7	15S	+0.64
		0.45	92	7	04S	+0.75
		0.25	118	4	15S	+0.65
75	124	0.31	0	7	09S	-0.61
		0.33	98	6	09S	-0.70
76	64	0.37	85	8	14S	-0.78
		1.13	90	22	07S	-0.80

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
76	65	0.3	85	7	12S	+0.53
76	68	0.45	78	10	07S	-0.75
76	100	0.31	100	7	02S	-0.77
76	119	0.38	107	6	07S	-0.70
		0.28	91	4	08S	+0.65
76	120	0.67	74	12	09S	-0.63
		0.59	89	11	07S	-0.70
76	121	0.17	0	4	07S	-0.81
		0.39	71	6	07S	-0.61
76	123	0.47	137	9	11S	-0.46
77	75	0.36	86	10	08S	-0.79
		0.41	0	10	08S	-0.65
77	86	0.15	146	25	LTS	+7.89
77	102	0.54	106	14	15S	-0.72
77	119	0.35	83	9	07S	-0.74
		0.47	0	13	07S	-0.74
77	125	0.31	80	8	05S	-0.63
		0.71	84	16	11S	-0.74
		0.17	83	4	10S	+0.18
		0.28	0	8	05S	-0.63
78	8	0.45	82	10	13S	-0.84
78	41	0.18	102	29	LTS	+27.00
78	45	0.25	95	34	LTS	+25.65
78	52	0.23	43	6	03S	-0.79
78	54	0.31	134	7	09S	-0.79
78	71	0.21	100	5	06S	-0.78
78	93	0.43	148	36	LTS	+11.52
78	109	0.38	112	10	07S	-0.78
		0.43	0	12	07S	-0.78
78	113	0.24	123	8	05S	-0.75
78	123	1.53	96	30	09S	+0.64
79	10	0.33	28	8	12S	+0.52
79	21	0.8	141	13	07S	-0.77
79	26	0.41	0	13	11S	-0.74
		0.57	155	10	11S	-0.84
79	34	0.31	75	7	09S	+0.66
		0.26	0	8	09S	+0.71
79	39	0.66	106	14	12S	-0.84
79	40	0.37	104	10	11S	-0.75
		0.38	88	10	13S	-0.75
		0.41	0	12	11S	-0.79
79	43	0.2	133	33	LTS	+25.91
79	54	0.23	118	6	10S	-0.78
		0.27	154	7	09S	-0.84

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
79	55	0.42	143	10	06S	-0.77
79	56	0.49	71	11	09S	-0.77
79	57	0.94	90	20	07S	-0.78
79	61	0.32	60	8	12S	-0.78
		0.34	67	8	07S	-0.78
		0.26	0	8	12S	-0.74
79	62	0.18	88	5	12S	-0.87
		0.14	90	4	09S	+0.60
		0.45	82	11	09S	-0.80
79	66	0.38	87	9	07S	-0.82
79	75	0.24	95	6	07S	-0.73
79	92	0.21	138	33	LTS	+14.69
		0.2	128	30	LTS	+12.71
79	97	0.34	162	32	LTS	+16.44
		0.43	135	36	LTS	+9.46
79	114	0.32	137	9	07S	+0.47
79	123	0.3	120	8	06S	-0.80
79	126	0.54	100	15	07S	-0.72
80	9	0.52	112	9	11S	-0.79
80	35	0.34	74	8	12S	-0.73
80	48	0.19	147	32	LTS	+5.04
80	49	0.29	105	8	09S	+0.65
		0.19	0	6	09S	+0.82
80	52	0.23	118	6	09S	+0.69
80	58	0.52	100	12	09S	-0.78
		0.8	97	17	07S	-0.73
80	60	0.33	83	8	07S	-0.80
		0.27	0	8	07S	-0.64
80	61	0.24	82	6	09S	+0.74
80	62	0.2	97	5	12S	-0.30
		0.35	47	9	09S	+0.69
80	65	0.24	79	6	13S	-0.87
		0.28	85	7	10S	-0.80
80	70	0.31	78	8	07S	-0.77
80	76	0.34	94	8	07S	-0.71
80	80	0.34	49	8	07S	-0.74
80	99	0.26	131	32	LTS	+14.64
		0.17	101	31	LTS	+11.35
		0.42	165	31	LTS	+10.24
		0.41	160	37	LTS	+7.84
		0.17	83	32	LTS	+6.98
80	126	0.44	118	11	07S	-0.71
80	127	0.9	102	22	07S	-0.72
		0.35	127	10	07S	+0.72

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.26	127	8	08S	+0.70
80	129	0.29	107	9	05S	-0.56
		0.28	0	8	05S	-0.58
81	16	0.47	129	11	09S	-0.76
81	35	0.34	151	8	05S	-0.79
81	41	0.5	137	11	09S	-0.79
81	49	0.34	122	8	09S	+0.75
81	62	0.42	62	10	09S	+0.69
81	64	0.85	93	17	10S	-0.78
81	65	0.72	93	16	10S	-0.80
81	75	0.17	109	4	07S	-0.75
81	78	0.23	89	6	09S	-0.79
81	104	0.15	124	32	LTS	+8.48
81	121	0.39	100	11	07S	-0.70
81	122	0.75	109	15	07S	-0.69
81	125	0.62	89	15	03S	-0.50
		0.56	105	14	07S	-0.63
81	126	0.29	118	7	04S	-0.68
		0.5	125	12	07S	-0.60
		0.52	106	13	08S	+0.69
82	6	0.39	119	10	09S	-0.80
82	38	0.39	86	9	09S	-0.75
82	41	0.27	141	7	07S	-0.82
82	49	0.28	106	8	07S	-0.80
82	50	0.54	126	12	07S	-0.70
		0.31	69	8	09S	+0.73
82	52	0.48	56	11	06S	-0.79
82	57	0.19	78	5	09S	+0.71
		0.28	0	8	09S	+0.82
82	61	0.43	76	10	09S	+0.64
82	64	0.21	79	5	12S	+0.59
82	100	0.27	114	8	06S	-0.81
		0.31	0	7	06S	-0.77
82	117	0.31	124	9	07S	-0.75
		0.49	0	14	07S	-0.75
82	125	0.45	89	11	08S	+0.63
		0.31	48	8	09S	+0.16
83	8	0.26	130	7	09S	-0.74
83	9	0.47	130	8	09S	-0.77
83	11	0.46	36	8	09S	-0.70
83	35	0.66	46	14	03S	-0.79
83	45	0.46	104	11	07S	-0.79
83	49	0.32	85	8	07S	+0.00
		0.25	0	8	07S	+0.77

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.2	0	6	07S	-0.85
83	57	0.35	90	6	07S	-0.70
		0.27	79	4	09S	-0.66
83	61	0.24	81	5	07S	-0.67
		0.31	81	6	09S	+0.77
83	99	0.36	52	8	06S	-0.78
83	100	0.22	150	28	LTS	+10.95
		0.29	144	33	LTS	+7.94
		0.1	51	20	LTS	+5.98
83	122	0.32	103	9	07S	-0.75
		0.35	0	10	07S	-0.75
83	123	0.4	146	8	07S	-0.71
		0.27	0	8	07S	-0.71
83	125	0.37	111	8	07S	-0.59
		0.36	0	10	07S	-0.59
83	126	0.39	120	10	07S	-0.63
		0.39	0	12	07S	-0.71
83	127	0.41	111	10	07S	-0.71
		0.34	120	9	07S	+0.58
83	128	0.27	78	7	04S	-0.69
		0.33	101	8	04S	+0.56
83	130	0.58	125	14	09S	-0.74
83	131	0.46	126	11	09S	-0.67
84	27	0.3	47	7	03S	-0.76
84	31	0.26	128	34	LTS	+12.57
84	38	0.28	95	8	09S	-0.73
84	39	0.74	114	16	07S	-0.79
84	47	0.44	50	10	09S	-0.73
		0.18	0	6	09S	+0.71
		0.14	0	6	09S	+0.75
		0.16	0	6	09S	-0.70
84	61	0.36	71	6	09S	+0.78
84	72	0.28	80	6	07S	-0.78
84	75	0.5	83	10	07S	-0.78
84	80	0.35	93	8	05S	-0.60
84	85	0.59	88	15	07S	-0.89
84	93	0.11	129	26	LTS	+14.38
84	98	0.1	140	30	LTS	+16.89
		0.12	138	30	LTS	+13.80
		0.37	155	32	LTS	+12.23
		0.51	169	33	LTS	+11.17
		0.27	183	23	LTS	+10.06
		0.13	83	26	LTS	+9.19
84	100	0.26	176	37	LTS	+11.25

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.33	149	36	LTS	+8.34
		0.37	166	30	LTS	+6.94
84	123	0.65	109	13	08S	+0.67
84	125	0.31	117	6	03S	+0.54
		0.57	109	12	08S	+0.78
84	126	0.4	98	11	09S	+0.02
84	128	0.49	98	14	07S	-0.85
85	37	0.41	54	11	07S	-0.75
85	38	0.39	95	9	03S	-0.80
85	43	0.36	72	10	09S	-0.75
		0.3	99	8	10S	-0.78
		0.33	0	10	10S	-0.78
		0.28	141	37	LTS	+10.38
85	72	0.39	79	8	06S	-0.73
85	76	0.26	47	5	04S	-0.80
85	90	0.36	76	11	07S	-0.79
85	92	0.13	135	25	LTS	+8.28
85	96	0.28	91	38	LTS	+9.74
85	98	0.24	140	33	LTS	+9.74
85	123	0.33	117	9	08S	+0.70
85	126	0.73	111	17	07S	-0.80
85	127	0.35	103	9	07S	-0.83
		0.39	53	10	09S	-0.85
86	6	0.52	0	16	09S	+0.66
		0.37	0	12	09S	-0.72
		0.56	94	10	09S	+0.62
86	7	0.72	0	21	09S	+0.59
		0.4	72	10	09S	+0.63
86	24	0.27	122	37	LTS	+13.00
		0.36	156	33	LTS	+9.23
86	25	0.23	91	6	07S	-0.74
86	38	0.56	32	12	09S	-0.71
86	53	0.65	95	14	07S	-0.77
86	76	0.25	70	5	07S	-0.78
		0.12	0	4	07S	-0.68
86	85	0.27	99	8	06S	-0.79
		0.17	0	4	06S	-0.77
86	104	0.18	93	3	07S	-0.78
86	112	0.36	139	10	02S	-0.81
86	116	0.21	97	6	05S	-0.73
86	124	0.54	104	14	08S	+0.63
		0.2	102	6	03S	+0.27
		0.4	0	11	03S	+0.27
86	125	0.34	113	7	07S	-0.02

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
86	126	0.51	118	13	07S	-0.11
		0.42	107	11	07S	+0.59
		0.4	105	11	03S	+0.38
		0.28	0	8	03S	+0.38
87	8	0.34	143	6	09S	-0.75
87	22	0.55	100	10	07S	-0.75
87	39	0.16	109	29	LTS	+12.69
87	40	0.72	91	15	09S	-0.73
87	49	0.73	85	16	06S	-0.77
87	50	0.37	51	10	06S	-0.78
87	53	0.57	88	13	06S	-0.79
87	56	0.18	70	3	07S	-0.69
87	57	0.16	96	2	09S	+0.82
87	67	0.3	92	6	07S	-0.74
87	112	0.36	109	7	07S	+0.50
87	123	0.29	92	8	08S	-0.11
87	125	0.28	125	8	08S	-0.18
88	8	0.46	109	11	07S	-0.82
88	12	0.78	102	17	07S	-0.77
88	19	0.23	100	6	03S	-0.78
88	29	0.62	88	15	07S	-0.81
88	31	0.42	69	10	09S	-0.77
88	34	0.15	130	29	LTS	+15.45
		0.22	62	34	LTS	+12.75
88	45	0.22	132	34	LTS	+13.96
88	47	0.47	116	11	09S	-0.75
88	49	0.19	76	5	06S	-0.82
		0.18	0	6	06S	-0.89
88	50	0.31	135	9	06S	-0.82
		0.22	0	7	06S	-0.85
88	51	0.44	48	10	03S	-0.77
88	53	0.67	62	14	07S	-0.75
88	70	0.46	72	9	06S	-0.80
88	113	0.38	123	8	07S	+0.61
88	123	0.35	132	7	03S	-0.07
		0.24	124	5	08S	-0.20
		0.29	89	6	08S	+0.25
		0.25	144	6	07S	-0.02
		0.46	0	14	08S	+0.26
		0.36	0	11	07S	+0.12
88	125	0.33	127	8	07S	-0.76
88	127	0.34	135	9	09S	-0.76
		0.26	0	8	09S	-0.76
88	128	0.52	120	15	07S	-0.78

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
88	129	0.35	122	10	11S	-0.79
89	4	0.34	63	8	10S	+0.49
89	5	0.45	61	11	01S	-0.77
89	33	0.29	141	32	LTS	+9.68
89	39	0.28	139	33	LTS	+14.25
89	49	0.26	106	6	07S	-0.77
89	50	0.41	35	11	09S	-0.73
		0.23	0	7	09S	-0.66
89	53	0.36	56	8	07S	-0.77
89	84	0.45	82	13	07S	-0.79
89	89	0.22	168	15	LTS	+11.34
		0.12	131	28	LTS	+8.39
		0.16	132	28	LTS	+5.83
89	122	0.34	139	7	07S	+0.00
		0.32	0	9	07S	+0.00
89	123	0.46	128	12	07S	-0.07
89	126	0.31	126	8	07S	-0.78
		0.3	0	9	07S	-0.78
90	5	0.62	45	14	07S	-0.77
90	35	0.29	154	9	07S	-0.78
90	40	0.07	115	16	LTS	+17.73
		0.15	127	33	LTS	+15.46
		0.19	82	30	LTS	+14.44
		0.11	124	27	LTS	+12.22
		0.12	78	29	LTS	+11.93
		0.28	143	36	LTS	+11.70
		0.09	141	18	LTS	+9.86
		0.4	149	33	LTS	+8.28
90	41	0.85	79	20	07S	-0.80
90	48	0.36	110	8	07S	-0.77
90	50	0.51	44	11	06S	+0.61
		0.53	0	16	06S	+0.77
90	60	0.82	81	14	07S	-0.72
90	65	0.42	83	9	07S	-0.72
90	88	0.23	140	27	LTS	+5.47
90	126	0.27	125	8	07S	-0.79
90	128	0.41	134	10	09S	-0.78
91	6	0.52	75	12	09S	+0.63
91	7	0.53	43	13	09S	+0.64
91	12	0.29	148	7	07S	-0.78
91	41	0.21	78	5	06S	+0.68
91	42	0.3	82	7	10S	-0.78
91	53	0.28	78	5	13S	+0.89
91	87	0.33	80	10	03S	-0.77

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
91	93	0.13	108	32	LTS	+9.44
91	94	0.19	143	33	LTS	+10.92
		0.2	134	33	LTS	+8.15
91	96	0.41	31	8	03S	-0.78
91	98	0.24	124	32	LTS	+11.33
		0.22	116	33	LTS	+9.12
91	119	0.33	96	8	07S	-0.72
92	17	0.93	105	20	09S	-0.79
92	26	0.28	94	37	LTS	+12.80
		0.32	169	34	LTS	+10.78
		0.29	153	29	LTS	+7.90
		0.07	114	22	LTS	+5.67
92	36	0.73	79	18	07S	-0.75
92	38	0.14	89	4	09S	-0.71
92	39	0.21	132	33	LTS	+10.89
92	40	0.21	52	29	LTS	+14.29
92	43	0.5	150	37	LTS	+5.68
92	60	0.7	90	11	07S	-0.71
92	114	0.4	110	8	07S	-0.76
92	116	0.24	50	5	07S	-0.63
92	120	0.31	136	7	05S	-0.85
		0.1	145	2	07S	-0.81
92	124	0.53	42	14	07S	-0.74
92	126	0.52	42	11	09S	-0.79
		0.52	100	11	07S	-0.82
93	4	0.71	0	21	09S	+0.66
		0.34	132	8	09S	+0.63
93	6	0.47	120	11	09S	+0.56
93	17	0.86	90	19	09S	-0.77
93	31	0.25	77	36	LTS	+12.69
		0.19	68	26	LTS	+11.14
93	34	0.29	57	7	07S	-0.79
93	36	0.86	106	17	09S	-0.77
93	40	0.48	68	10	09S	-0.72
93	46	0.21	167	27	LTS	+15.70
		0.13	146	26	LTS	+12.05
		0.35	160	30	LTS	+10.98
		0.19	163	22	LTS	+6.93
93	55	0.35	31	7	07S	-0.74
93	79	0.21	132	35	LTS	+10.65
93	87	0.17	162	20	LTS	+7.55
93	94	0.35	148	37	LTS	+12.63
		0.65	170	31	LTS	+7.02
93	116	0.15	131	5	07S	-0.68

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
94	7	0.51	52	12	09S	+0.54
94	17	0.4	130	10	15S	+0.80
94	51	0.39	93	11	14S	-0.89
94	56	0.17	83	3	07S	-0.73
94	66	0.34	87	8	07S	-0.70
94	127	0.36	43	9	09S	+0.63
95	1	0.38	93	10	07S	-0.72
95	3	0.41	0	13	09S	+0.65
		0.37	79	9	09S	+0.59
95	5	0.55	98	13	07S	-0.77
95	6	0.39	61	9	09S	+0.50
95	20	0.42	0	13	07S	-0.75
		0.34	123	8	07S	-0.78
95	21	0.26	88	7	06S	+0.77
95	23	0.49	107	12	07S	-0.81
95	36	0.35	170	27	LTS	+17.94
		0.18	135	29	LTS	+14.96
		0.19	74	31	LTS	+9.87
95	47	0.11	105	29	LTS	+10.79
95	53	0.41	53	6	12S	-0.87
95	85	0.75	90	19	07S	+0.68
95	90	0.31	107	7	07S	-0.83
		0.37	0	9	07S	-0.80
96	4	0.57	86	13	09S	+0.65
96	25	0.26	73	7	15S	+0.88
96	35	0.39	51	11	06S	+0.66
		0.38	0	11	06S	+0.69
96	40	0.26	153	34	LTS	+10.21
96	41	0.19	153	25	LTS	+13.21
		0.37	145	37	LTS	+11.82
96	44	0.17	54	26	LTS	+9.03
		0.13	92	28	LTS	+6.64
96	45	0.17	112	33	LTS	+12.10
96	51	0.63	43	14	06S	+0.61
96	66	0.66	100	14	07S	-0.74
96	70	0.47	103	11	07S	-0.72
96	91	0.11	142	23	LTS	+11.99
97	3	0.3	55	8	09S	+0.68
		0.34	0	11	09S	+0.67
97	5	0.21	85	5	13S	-0.79
		0.32	105	8	07S	+0.63
		0.2	0	6	13S	-0.77
97	41	0.37	57	9	09S	-0.73
		0.27	63	31	LTS	+13.78

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.24	168	30	LTS	+11.66
97	71	0.22	129	6	07S	-0.79
		0.11	0	4	07S	-0.86
97	121	0.35	95	10	07S	-0.73
97	123	0.54	35	14	09S	+0.57
98	35	0.17	107	4	07S	-0.82
98	39	0.17	120	26	LTS	+18.12
		0.19	132	33	LTS	+15.75
		0.2	116	32	LTS	+14.84
		0.21	118	37	LTS	+12.27
		0.15	71	26	LTS	+6.83
98	42	0.11	59	27	LTS	+14.93
		0.24	148	30	LTS	+12.00
98	45	0.12	59	27	LTS	+12.30
98	47	0.09	87	27	LTS	+6.88
		0.15	53	24	LTS	+17.12
98	124	0.36	88	8	09S	+0.65
99	1	0.27	78	7	11S	+0.77
99	4	0.51	97	12	09S	+0.63
99	6	0.23	0	7	06S	-0.07
		0.2	85	5	06S	-0.13
99	7	0.33	58	8	09S	+0.66
		0.37	0	12	09S	+0.70
99	9	0.24	79	6	07S	+0.75
99	41	0.58	83	13	03S	-0.77
		0.22	89	32	LTS	+10.45
99	46	0.25	120	7	07S	-0.73
99	106	0.15	100	3	06S	-0.78
99	114	0.15	123	3	07S	-0.79
99	122	0.35	148	8	09S	-0.90
99	123	0.22	20	6	09S	-0.80
99	126	0.59	114	16	07S	+0.27
100	3	0.35	64	9	09S	-0.77
		0.37	0	12	09S	-0.75
100	5	0.66	87	15	09S	+0.64
		1.07	164	22	07S	-0.79
		0.43	0	13	07S	-0.75
100	21	0.43	108	11	07S	-0.79
100	33	0.2	74	30	LTS	+11.07
		0.21	86	32	LTS	+10.23
100	36	0.34	150	34	LTS	+7.99
		0.31	59	36	LTS	+13.52
100	38	0.19	125	35	LTS	+17.09
		0.38	173	34	LTS	+15.17

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.11	94	31	LTS	+14.95
100	41	0.43	155	30	LTS	+17.34
		0.49	165	36	LTS	+7.99
100	45	0.16	121	32	LTS	+14.79
100	66	0.11	129	29	LTS	+9.91
100	84	0.4	93	11	03S	-0.79
100	92	0.24	159	27	LTS	+9.11
		0.18	129	34	LTS	+7.23
100	122	0.28	33	8	07S	-0.61
101	10	0.41	102	10	07S	-0.81
101	24	0.74	76	17	09S	-0.79
101	35	0.43	47	12	07S	-0.82
101	43	0.18	66	29	LTS	+9.19
101	47	0.13	56	25	LTS	+15.17
		0.16	167	17	LTS	+11.10
		0.17	135	30	LTS	+8.99
101	81	0.19	87	6	07S	-0.82
101	98	0.11	88	21	LTS	+17.47
		0.16	143	32	LTS	+13.29
102	41	0.28	149	34	LTS	+16.16
102	43	0.16	130	27	LTS	+13.33
		0.24	92	32	LTS	+12.42
		0.41	169	31	LTS	+7.83
102	44	0.16	63	27	LTS	+9.59
102	95	0.97	100	22	07S	-0.82
102	111	0.39	114	9	07S	+0.58
102	112	0.3	122	8	07S	-0.66
102	113	0.6	103	13	07S	+0.61
102	115	0.57	118	12	07S	+0.56
102	116	0.34	105	10	07S	-0.65
		0.24	84	7	07S	+0.52
		0.3	0	9	07S	-0.60
102	119	0.39	119	9	07S	-0.65
103	5	0.48	103	11	09S	+0.61
103	27	0.25	34	6	07S	-0.74
103	36	0.25	143	37	LTS	+10.97
103	37	0.11	119	26	LTS	+23.97
		0.29	134	33	LTS	+15.40
		0.29	128	37	LTS	+10.14
103	41	0.13	92	25	LTS	+15.78
103	55	0.23	95	5	07S	-0.81
103	94	0.17	108	34	LTS	+5.31
103	97	0.23	88	7	04S	-0.75
103	123	0.28	53	6	07S	-0.76

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
104	40	0.09	90	24	LTS	+15.27
		0.08	104	25	LTS	+13.19
104	44	0.14	160	26	LTS	+12.41
		0.13	53	25	LTS	+11.75
		0.13	49	20	LTS	+17.88
104	46	0.47	90	13	07S	-0.79
104	90	0.07	135	27	LTS	+14.24
		0.15	106	28	LTS	+12.16
		0.2	162	34	LTS	+8.95
104	119	0.27	121	8	08S	+0.59
		0.49	0	14	08S	+0.59
104	122	0.82	48	17	10S	+0.59
105	42	0.9	99	18	07S	-0.73
105	44	0.49	87	11	10S	-0.39
105	87	0.31	118	7	07S	-0.81
105	113	0.69	97	17	07S	-0.81
105	120	0.29	104	6	07S	-0.83
105	122	0.46	122	12	07S	-0.86
106	38	0.63	102	13	07S	-0.79
106	42	0.31	126	37	LTS	+16.36
		0.14	68	27	LTS	+14.76
		0.24	146	31	LTS	+12.49
		0.13	120	28	LTS	+11.46
106	43	0.1	126	26	LTS	+7.01
106	48	0.32	144	34	LTS	+8.90
106	50	0.2	69	32	LTS	+13.63
		0.15	53	26	LTS	+10.62
106	61	1.24	96	24	07S	-0.79
106	71	0.32	107	9	07S	-0.84
106	74	0.03	120	23	LTS	+14.55
		0.16	127	25	LTS	+9.33
106	92	0.19	96	6	03S	-0.80
106	97	0.37	82	8	02S	-0.84
106	117	0.32	133	9	09S	-0.84
107	23	0.22	121	7	07S	-0.77
107	47	0.18	70	30	LTS	+16.05
		0.13	117	31	LTS	+14.13
		0.16	117	38	LTS	+11.81
		0.28	148	37	LTS	+7.32
107	66	0.1	130	29	LTS	+14.77
		0.08	125	21	LTS	+12.20
		0.15	142	30	LTS	+7.44
		0.09	135	24	LTS	+6.58
107	67	0.39	116	10	07S	-0.77

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
107	116	0.37	107	10	07S	-0.86
108	34	0.2	66	32	LTS	+15.09
108	55	0.27	91	7	07S	-0.83
108	74	0.19	148	33	LTS	+13.29
109	46	0.14	144	29	LTS	+12.33
		0.18	141	28	LTS	+10.80
		0.26	155	28	LTS	+8.43
109	52	0.62	111	14	07S	-0.84
109	84	0.28	102	6	03S	-0.78
		0.58	110	12	07S	-0.76
109	100	0.33	104	7	07S	-0.78
		0.34	0	8	07S	-0.78
109	117	0.31	128	9	09S	-0.74
		0.18	0	6	09S	-0.57
110	24	0.58	101	13	09S	-0.75
110	40	0.29	164	28	LTS	+12.77
110	43	0.17	126	35	LTS	+23.54
110	46	0.2	52	30	LTS	+12.26
110	50	0.19	121	5	07S	-0.81
		0.25	0	8	07S	-0.73
110	52	0.17	112	33	LTS	+14.02
		0.07	128	23	LTS	+11.39
		0.23	134	28	LTS	+10.30
		0.19	125	30	LTS	+9.57
110	57	0.31	120	8	07S	-0.79
110	81	0.24	110	5	03S	-0.81
110	85	0.44	69	9	06S	+0.12
111	27	0.3	78	7	07S	-0.82
111	39	0.12	128	23	LTS	+9.93
111	42	0.25	174	32	LTS	+14.49
		0.42	162	34	LTS	+11.58
111	51	0.2	137	34	LTS	+11.30
111	66	0.42	79	10	07S	-0.70
111	71	0.37	105	11	03S	-0.75
		0.41	88	12	07S	-0.82
112	26	0.43	98	10	09S	-0.78
112	82	0.41	128	10	07S	-0.78
113	23	0.51	160	12	09S	-0.79
113	44	0.3	171	29	LTS	+12.30
		0.28	148	34	LTS	+10.14
		0.06	90	18	LTS	+7.80
113	45	0.18	54	31	LTS	+16.87
113	71	0.2	122	6	07S	-0.79
		0.22	0	5	07S	-0.78

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
113	94	0.37	132	9	07S	-0.76
113	108	0.31	139	9	07S	-0.77
114	39	0.44	65	10	09S	-0.73
114	41	0.17	144	29	LTS	+9.14
		0.18	122	35	LTS	+8.21
114	42	0.09	115	24	LTS	+26.42
		0.41	153	34	LTS	+11.65
		0.23	172	26	LTS	+8.54
		0.23	173	31	LTS	+8.25
		0.14	172	24	LTS	+6.93
114	43	0.12	82	24	LTS	+23.58
		0.26	168	31	LTS	+11.98
		0.34	168	32	LTS	+10.28
		0.17	176	28	LTS	+7.23
		0.14	147	30	LTS	+6.78
		0.04	85	9	LTS	+25.76
114	46	0.14	123	21	LTS	+6.69
114	70	0.44	116	11	07S	-0.76
114	93	0.44	72	12	02S	-0.83
114	109	0.27	70	8	11S	+0.74
114	111	0.34	110	10	09S	+0.48
		0.28	0	8	09S	+0.69
115	40	0.52	82	11	07S	-0.86
115	43	0.43	88	12	07S	-0.84
115	57	0.86	99	19	07S	-0.73
115	61	0.57	81	14	03S	-0.81
115	63	0.25	114	6	07S	-0.80
		0.19	0	7	07S	-0.73
115	80	0.44	104	12	07S	-0.75
115	87	0.49	95	12	07S	-0.71
115	99	0.31	110	7	07S	-0.76
115	100	0.34	117	8	07S	-0.79
115	109	0.26	103	7	09S	+0.55
		0.16	146	5	09S	-0.72
116	25	0.35	24	10	07S	-0.79
116	35	0.52	81	14	07S	-0.75
116	39	0.3	116	9	03S	-0.82
116	43	0.13	134	28	LTS	+7.75
		0.08	125	21	LTS	+7.05
		0.23	137	35	LTS	+6.69
		0.11	137	26	LTS	+6.28
116	49	1.02	93	22	07S	-0.78
116	50	0.27	101	7	07S	-0.83
116	61	0.36	107	10	07S	-0.76

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
116	62	0.23	0	9	07S	-0.75
		0.22	116	5	07S	-0.85
116	80	0.37	94	11	07S	-0.77
116	81	0.36	131	9	07S	-0.81
116	92	0.2	66	6	07S	-0.73
		0.2	0	5	07S	-0.74
116	100	0.36	135	8	13S	-0.81
116	111	0.29	129	8	10S	-0.74
117	40	0.41	105	11	07S	-0.79
117	71	0.4	131	10	07S	-0.79
117	73	0.57	103	15	07S	-0.80
117	82	0.85	110	18	07S	-0.81
118	19	0.54	155	13	07S	-0.76
118	30	0.49	39	13	07S	-0.84
118	41	0.15	110	29	LTS	+9.44
		0.24	60	30	LTS	+8.75
		0.2	142	30	LTS	+5.81
118	56	0.23	109	6	07S	-0.78
		0.24	0	8	07S	-0.75
118	64	0.28	118	7	03S	-0.75
118	66	0.43	90	12	03S	-0.79
		0.63	99	16	07S	-0.79
118	76	0.17	115	5	07S	-0.77
		0.19	0	5	07S	-0.81
118	89	0.35	147	9	07S	-0.81
		0.37	0	9	07S	-0.87
118	99	0.33	98	9	07S	-0.80
119	12	0.47	140	11	07S	-0.79
119	20	0.35	115	10	09S	-0.81
119	40	0.41	61	11	07S	-0.82
119	48	0.82	100	19	07S	-0.80
119	66	0.4	129	10	07S	-0.76
119	75	0.36	86	10	07S	-0.77
119	79	0.19	110	6	07S	-0.82
		0.41	0	10	07S	-0.77
119	80	0.3	127	7	07S	-0.76
120	50	0.23	119	6	07S	-0.83
120	56	0.26	135	7	03S	-0.79
120	63	0.61	92	14	07S	-0.70
120	97	0.32	111	10	07S	-0.86
120	102	0.4	121	10	07S	-0.76
		0.23	66	6	09S	+0.58
120	103	0.25	82	8	09S	-0.79
120	105	0.26	99	8	09S	+0.63

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
121	38	0.36	102	8	07S	-0.76
121	45	0.36	96	9	07S	-0.82
121	48	0.3	108	8	07S	-0.83
121	49	0.22	91	6	07S	-0.83
121	63	0.3	95	8	07S	-0.68
121	64	0.32	152	8	07S	-0.81
121	68	0.46	93	13	07S	-0.77
121	78	0.41	78	12	03S	-0.77
121	91	0.27	125	6	07S	-0.78
121	95	0.24	108	7	08S	+0.61
		0.36	0	9	08S	+0.61
122	38	0.61	84	16	07S	-0.77
122	55	0.37	105	10	07S	-0.76
122	56	0.29	120	7	07S	-0.77
122	57	0.25	97	7	07S	-0.76
122	72	0.29	95	8	07S	-0.79
122	102	0.27	124	8	07S	-0.82
123	30	0.45	88	12	07S	-0.82
123	65	0.25	99	5	07S	-0.72
123	70	0.29	117	7	07S	-0.78
		0.29	0	7	07S	-0.77
123	74	0.48	99	11	07S	-0.76
123	76	0.39	123	9	07S	-0.78
123	77	0.1	112	26	LTS	+4.44
123	93	0.35	111	7	07S	-0.79
123	102	0.41	113	12	10S	-0.84
123	103	0.54	137	13	10S	-0.65
124	17	0.44	90	12	07S	-0.80
124	29	0.24	79	7	06S	-0.82
		0.34	100	10	07S	-0.81
		0.29	0	9	07S	-0.85
		0.28	0	9	06S	-0.85
124	43	0.25	62	7	10S	+0.72
124	45	0.29	125	8	07S	-0.83
124	48	0.39	111	10	07S	-0.79
124	66	0.23	56	5	03S	-0.72
124	70	0.3	123	7	07S	-0.77
		0.35	0	8	07S	-0.81
124	71	1.1	89	21	07S	-0.76
124	73	0.37	129	8	07S	-0.78
124	99	0.17	127	6	10S	-0.75
125	34	0.33	128	9	07S	-0.84
125	82	0.33	36	8	07S	-0.85
		0.28	0	7	07S	-0.77

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
125	86	0.29	111	7	07S	-0.81
125	89	0.67	113	14	07S	-0.77
125	92	0.24	106	6	07S	-0.81
		0.3	0	7	07S	-0.70
125	98	0.32	101	10	10S	-0.82
125	100	0.37	80	11	10S	-0.79
126	2	0.4	44	8	10S	-0.60
		0.39	77	7	10S	+0.73
		0.27	0	9	10S	-0.72
		0.31	0	10	10S	+0.67
126	13	0.35	62	7	07S	-0.71
126	26	0.4	49	10	15S	-0.77
126	43	0.23	70	6	07S	-0.74
126	53	0.43	119	11	07S	-0.79
126	75	0.28	105	6	07S	-0.77
		0.35	0	8	07S	-0.81
126	98	0.38	122	10	10S	-0.69
		0.4	0	12	10S	-0.70
127	3	0.48	82	9	10S	+0.74
		0.59	30	11	10S	-0.62
127	31	0.33	72	10	07S	-0.78
127	58	0.62	112	14	07S	-0.79
127	95	0.48	92	14	10S	-0.79
127	96	0.55	95	13	10S	-0.76
128	33	0.45	123	12	09S	-0.73
		0.22	39	7	07S	-0.80
128	38	0.45	108	11	09S	-0.82
128	53	0.51	109	12	13S	-0.82
128	66	0.46	105	10	07S	-0.78
128	85	0.31	107	7	07S	-0.75
		0.39	0	9	07S	-0.73
128	87	0.33	125	7	13S	-0.77
		0.16	0	4	13S	-0.76
128	93	0.29	117	9	10S	-0.81
128	94	0.4	84	10	10S	-0.65
129	2	0.46	89	9	11S	-0.67
129	34	0.7	88	15	07S	-0.82
129	40	0.2	111	5	07S	-0.77
129	41	0.17	102	30	LTS	+21.41
129	52	0.38	114	9	07S	-0.82
129	53	0.5	120	12	09S	-0.81
		0.45	75	11	07S	-0.74
129	69	0.48	116	11	07S	-0.78
129	93	0.25	117	8	10S	-0.70

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.13	57	4	10S	+0.34
129	94	0.18	106	6	10S	-0.77
130	14	0.57	108	15	09S	-0.85
		0.34	113	10	07S	+0.69
		0.24	0	8	07S	+0.79
130	19	0.38	26	9	10S	-0.88
130	23	0.7	95	15	07S	-0.74
130	33	0.29	70	7	07S	-0.79
130	39	0.32	109	8	03S	-0.77
130	47	0.54	111	13	07S	-0.77
130	65	0.41	102	9	07S	-0.75
		0.34	0	8	07S	-0.78
130	71	0.29	120	7	07S	-0.79
		0.22	0	5	07S	-0.79
130	91	0.36	142	9	10S	-0.76
		0.37	0	11	10S	-0.76
130	92	0.51	90	14	10S	-0.72
130	93	0.17	80	6	10S	-0.81
131	3	0.18	141	24	LTS	+37.24
131	50	0.47	120	11	07S	-0.82
131	67	0.42	122	9	07S	-0.76
131	81	0.39	121	9	13S	-0.74
		0.29	0	7	13S	-0.77
131	82	0.32	93	7	07S	-0.81
		0.39	0	9	07S	-0.78
132	26	0.24	107	6	07S	-0.79
132	30	0.37	88	9	07S	-0.83
132	36	0.38	122	10	07S	-0.79
132	45	0.49	113	12	07S	-0.84
132	48	0.64	104	15	07S	-0.82
132	58	0.52	109	11	07S	-0.77
132	63	0.67	93	14	07S	-0.76
132	72	0.42	94	9	07S	-0.73
		0.35	0	8	07S	-0.85
132	74	0.27	92	5	07S	-0.79
		0.28	0	7	07S	-0.75
132	76	0.31	115	6	13S	-0.82
132	80	0.29	95	6	07S	-0.75
		0.28	0	7	07S	-0.76
132	84	0.29	98	9	10S	-0.72
132	85	0.41	124	12	07S	-0.79
133	35	0.4	99	10	07S	-0.79
133	85	0.29	65	7	10S	-0.74
		0.32	0	8	10S	-0.63

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
134	7	0.28	0	16	09S	+0.67
		0.46	76	9	09S	+0.67
134	29	0.36	113	9	07S	-0.81
134	38	0.44	109	11	07S	-0.82
134	39	0.32	114	8	07S	-0.76
134	45	0.43	57	11	07S	-0.74
134	63	0.46	111	11	07S	-0.77
134	70	0.26	141	7	07S	-0.82
		0.27	0	10	07S	-0.75
134	78	0.44	128	11	07S	-0.84
135	2	0.45	86	8	10S	+0.69
		0.4	0	13	10S	+0.65
135	29	0.52	97	12	07S	-0.81
135	41	0.41	127	10	07S	-0.74
135	43	0.43	114	11	07S	-0.74
		0.36	118	9	09S	-0.83
135	47	0.38	118	10	07S	-0.77
135	81	0.34	114	9	10S	-0.70
136	1	0.51	91	10	10S	+0.78
136	3	0.7	94	13	10S	+0.66
		0.45	147	8	11S	-0.73
136	4	0.21	0	13	10S	+0.75
		0.2	0	12	10S	-0.65
		0.38	60	7	10S	-0.67
		0.29	86	6	10S	+0.71
136	13	0.39	146	9	15S	-0.83
136	15	0.2	92	5	15S	-0.83
136	20	0.38	53	10	13S	-0.89
136	28	0.51	28	14	07S	-0.71
		0.44	46	12	01S	-0.48
136	32	0.57	113	13	07S	-0.77
136	45	0.74	106	17	07S	-0.77
136	49	0.4	107	10	07S	-0.74
136	73	0.27	128	7	09S	-0.82
		0.24	0	6	09S	-0.75
137	1	0.25	122	5	10S	-0.64
		0.4	73	8	10S	+0.67
		0.31	0	10	10S	-0.69
		0.41	0	13	10S	+0.69
137	2	0.22	0	13	10S	+0.73
		0.17	0	10	10S	-0.68
		0.42	84	8	10S	+0.66
137	3	0.27	0	16	10S	-0.62
		0.24	0	14	10S	+0.69

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.34	95	7	10S	-0.67
		0.47	98	9	10S	+0.76
137	28	0.2	82	5	07S	-0.79
137	57	0.25	132	6	07S	-0.81
		0.26	0	6	07S	-0.77
137	74	0.25	135	6	07S	-0.82
		0.26	0	6	07S	-0.74
137	77	0.32	139	7	07S	-0.81
		0.32	0	8	07S	-0.71
138	1	0.42	115	8	10S	-0.74
138	2	0.45	57	9	10S	-0.55
		0.78	48	14	11S	-0.69
		0.61	113	11	10S	+0.69
138	9	0.34	65	10	09S	+0.60
138	20	0.46	63	11	07S	-0.79
138	28	0.26	114	6	07S	-0.86
138	30	0.61	98	14	07S	-0.79
138	63	0.44	124	10	13S	-0.79
139	3	0.42	99	11	10S	+0.57
		0.35	0	11	10S	+0.71
139	7	0.31	54	9	05S	-0.83
139	15	0.28	137	8	07S	-0.74
139	21	0.46	84	13	07S	-0.78
139	24	0.15	117	4	07S	-0.79
139	45	0.84	103	19	07S	-0.79
139	74	1.1	112	22	07S	-0.75
		0.25	87	7	13S	+0.66
		0.12	0	5	13S	+0.75
140	3	0.27	89	7	10S	+0.64
		0.31	66	9	03S	-0.80
		0.23	0	7	10S	-0.91
		0.26	0	8	10S	+0.67
		0.32	0	9	10S	+0.66
		0.33	0	9	10S	-0.73
140	4	0.23	69	6	10S	+0.58
		0.27	0	8	10S	+0.72
140	14	0.23	51	6	07S	-0.73
140	15	1.31	99	26	07S	-0.78
140	21	0.7	93	16	07S	-0.85
140	32	0.38	105	10	07S	-0.74
140	58	0.45	134	10	13S	-0.83
141	3	0.33	51	7	10S	-0.76
141	4	0.58	48	13	10S	+0.59
141	10	0.26	93	6	07S	-0.74

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
141	26	0.2	84	5	07S	-0.79
141	29	0.47	117	11	13S	-0.84
141	39	0.28	118	7	07S	-0.80
141	57	0.41	114	11	07S	-0.79
141	59	0.34	139	9	14S	-0.80
		0.25	0	6	14S	-0.76
141	61	0.38	67	10	05S	+0.36
142	3	0.44	48	10	10S	+0.00
		0.4	0	12	10S	+0.63
		0.3	0	9	10S	-0.74
142	11	0.33	75	8	07S	-0.79
142	12	0.39	62	8	07S	-0.74
142	14	0.59	106	14	07S	-0.78
142	15	0.33	130	8	07S	-0.77
142	17	0.39	101	9	07S	-0.76
142	25	0.28	96	7	07S	-0.74
142	34	0.35	50	9	08S	-0.59
142	38	0.32	100	8	07S	-0.82
142	40	0.35	128	9	13S	-0.87
142	55	0.4	133	9	09S	-0.86
		0.22	0	5	09S	-0.80
142	57	0.32	108	8	07S	-0.83
		0.47	0	11	07S	-0.71
142	65	0.16	100	4	08S	-0.82
143	2	0.19	104	2	10S	-0.76
		0.46	0	14	10S	-0.76
143	3	0.56	91	13	10S	-0.72
143	15	0.28	52	7	04S	-0.79
143	26	0.16	132	4	07S	-0.85
143	31	0.29	109	7	07S	-0.65
143	60	0.47	149	11	13S	-0.79
		0.23	0	6	13S	-0.68
144	2	0.49	32	11	10S	-0.67
144	3	0.5	31	11	10S	-0.74
		0.57	22	13	10S	+0.58
144	4	0.33	48	7	12S	-0.82
144	8	0.25	78	4	07S	-0.76
144	9	0.46	116	11	07S	-0.77
144	12	0.91	89	20	07S	-0.76
144	13	0.45	87	11	07S	-0.75
144	15	0.6	83	13	07S	-0.79
144	16	0.57	99	13	07S	-0.76
144	19	0.3	110	6	07S	-0.78
144	22	0.39	113	10	07S	-0.79

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
144	23	0.21	145	5	07S	-0.80
144	31	0.24	109	6	07S	-0.74
144	49	0.59	99	14	07S	-0.77
144	50	0.23	104	6	07S	-0.77
		0.33	0	8	07S	-0.74
144	51	0.25	104	7	07S	-0.77
		0.24	0	6	07S	-0.77
144	56	0.51	115	12	07S	-0.77
144	57	0.64	114	15	07S	-0.73
		0.35	142	9	13S	-0.77
145	2	0.4	67	9	10S	-0.75
145	8	0.48	90	11	07S	-0.77
145	10	0.17	126	4	04S	-0.84
		0.23	63	6	07S	-0.74
145	12	0.34	82	7	07S	-0.71
145	13	0.39	77	9	07S	-0.77
145	15	0.24	130	6	07S	-0.74
145	21	0.36	114	9	07S	-0.79
145	22	0.33	135	8	13S	-0.86
145	26	0.21	82	6	07S	-0.72
145	28	0.32	105	8	07S	-0.73
145	34	0.49	103	12	07S	-0.89
145	54	0.17	141	4	10S	-0.66
146	6	0.24	53	5	07S	-0.72
146	11	0.23	107	4	07S	-0.78
146	14	0.95	97	19	07S	-0.75
146	16	0.26	118	7	07S	-0.79
146	18	0.31	127	8	07S	-0.83
146	19	0.3	85	8	07S	-0.73
146	24	0.23	119	6	09S	+0.29
		0.25	0	9	09S	+0.36
146	26	0.31	70	8	09S	+0.53
		0.65	97	15	09S	-0.82
		1.01	93	21	08S	-0.82
		0.45	73	11	07S	+0.64
		0.28	60	7	07S	-0.62
		0.25	49	6	08S	+0.59
		0.53	0	18	08S	-0.76
		0.17	0	7	08S	+0.68
146	30	0.29	82	8	07S	-0.82
146	47	0.47	133	11	07S	-0.77
146	48	0.35	124	9	10S	-0.68
146	49	0.38	98	9	10S	-0.72
146	50	0.21	152	6	10S	-0.66

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
147	5	0.38	112	8	13S	-0.83
147	12	0.49	111	11	07S	-0.75
147	15	0.44	94	11	07S	-0.74
		0.11	146	3	07S	+0.56
147	16	0.19	86	5	07S	+0.63
		0.18	76	5	07S	-0.66
147	23	0.32	113	8	07S	-0.70
		0.33	123	8	09S	-0.86
		0.45	91	11	03S	-0.84
		0.24	0	9	07S	-0.77
147	24	0.31	88	8	07S	-0.87
147	32	0.25	108	6	09S	+0.64
147	42	0.21	56	6	10S	+0.68
		0.28	0	7	10S	+0.77
147	43	0.28	83	7	10S	-0.72
147	44	0.28	119	7	07S	-0.75
		0.17	48	5	10S	-0.64
147	45	0.37	137	9	13S	-0.81
148	2	0.28	111	5	09S	-0.81
		0.26	113	5	13S	-0.83
		0.18	0	6	13S	-0.81
148	17	0.49	101	12	07S	+0.58
148	20	0.57	80	13	10S	+0.65
		0.23	153	6	10S	-0.87
148	29	0.2	115	5	09S	+0.54
148	36	0.24	56	6	10S	+0.56
148	37	0.44	98	11	10S	+0.64
		0.44	0	10	10S	+0.72
148	41	0.2	103	5	10S	-0.75
149	1	0.18	98	2	09S	-0.87
		0.23	0	7	09S	-0.86
149	2	0.31	145	7	13S	-0.79
149	5	0.37	42	8	13S	-0.78
		0.18	0	6	13S	-0.64
149	7	0.3	136	7	07S	-0.73
		0.44	0	13	07S	-0.82
149	11	0.44	106	10	07S	-0.70
149	13	0.92	92	19	10S	+0.56
149	14	0.4	117	11	10S	+0.59
		0.22	0	7	10S	+0.75
149	15	0.33	75	8	10S	+0.65
		0.26	143	6	11S	-0.79
		0.16	83	4	09S	+0.52
149	16	0.24	98	7	10S	+0.59

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.32	0	10	10S	+0.73
149	17	0.22	60	6	10S	+0.65
		0.22	190	5	10S	-0.70
149	24	0.5	92	13	10S	+0.61
149	26	0.31	104	9	10S	-0.66
149	27	0.41	103	9	10S	-0.72
		0.26	85	6	10S	+0.63
149	28	0.38	113	9	10S	-0.72
		0.26	145	6	13S	-0.84
		0.22	63	8	10S	-0.70
149	29	0.44	94	10	10S	-0.70
149	30	0.41	71	10	10S	-0.70
		0.25	62	6	13S	+0.54
		0.68	79	16	10S	+0.67
		0.22	0	5	13S	+0.58
149	31	0.57	84	13	10S	-0.72
		0.25	88	6	10S	+0.61
149	32	0.26	122	7	10S	-0.77
		0.55	80	13	10S	+0.72
150	1	0.84	74	19	10S	+0.69
		0.27	62	5	10S	-0.74
150	5	0.22	80	6	10S	-0.75
150	6	0.28	142	7	10S	-0.77
		0.16	0	5	10S	-0.74
150	10	0.24	105	6	10S	-0.70
		0.37	101	9	10S	+0.61
		0.2	0	6	10S	-0.73
		0.41	0	12	10S	+0.67
150	11	0.24	133	6	10S	-0.73
		0.43	108	12	10S	+0.59
		0.25	0	8	10S	-0.70
		0.26	0	8	10S	+0.71
150	12	0.33	108	8	10S	-0.73
		0.33	94	8	10S	+0.61
150	13	0.48	88	13	10S	+0.64
		0.23	91	7	10S	-0.78
150	14	0.33	106	8	10S	-0.68
		0.28	0	10	10S	-0.68
150	15	0.4	92	11	07S	-0.84
		0.37	88	10	10S	+0.61
		0.19	79	6	10S	-0.69
150	16	0.24	91	6	10S	-0.72
		0.35	0	13	10S	-0.68
150	17	0.24	101	7	10S	-0.77

Tubes In-Service with Through-Wall Indications 1% to 39%
OTSG B

Row	Tube	Volts	Degree	%TW	Tube Support Plate	TSP Location
		0.21	111	6	14S	-0.79
150	18	0.42	107	10	10S	-0.81
		0.38	138	9	14S	-0.86
		0.08	0	3	14S	-0.78
150	19	0.36	96	10	10S	-0.71
		0.26	80	7	10S	+0.57
150	20	0.43	99	10	10S	-0.68
		0.28	66	7	10S	+0.61
150	21	0.42	113	11	10S	-0.73
		0.31	100	8	10S	+0.64
		0.27	122	7	14S	-0.77
150	22	0.37	103	9	10S	-0.68
		0.2	94	5	10S	+0.59
150	23	0.42	102	11	10S	+0.57
		0.29	96	8	10S	-0.68
150	24	0.54	108	12	10S	-0.71
		0.24	105	6	11S	-0.70
		0.38	92	9	10S	+0.66
		0.27	0	9	11S	-0.69
150	25	0.35	119	8	10S	-0.70
		0.27	113	6	10S	+0.59
		0.32	0	9	10S	+0.60
		0.43	0	12	10S	-0.75
		0.47	0	11	10S	-0.70
150	27	0.21	104	5	10S	-0.75
151	2	0.23	80	6	13S	-0.75
		0.33	97	9	10S	-0.77
151	3	0.4	95	9	10S	-0.68
151	4	0.27	85	7	10S	-0.76
151	5	0.29	79	7	10S	-0.68
151	8	0.23	95	6	10S	-0.74
151	9	0.18	103	5	10S	-0.77
151	10	0.45	104	10	10S	-0.76
		0.16	37	4	10S	+0.63
151	11	0.25	110	7	10S	-0.73
151	12	0.53	102	12	10S	-0.73
		0.19	76	5	10S	+0.61
151	15	0.42	114	10	10S	-0.69
		0.52	100	12	10S	+0.61

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50-302/LICENSE NUMBER DPR-72

ATTACHMENT

SPECIAL REPORT 04-01

APPENDIX 2

**FIRST SPAN IGA IN OTSG-B
(Regression Analysis)**

Appendix Acronyms

IGA – Intergranular Attack

LTS – Lower Tubesheet

OTSG – Once-Through Steam Generator

TW – Through-Wall

First Span IGA in OTSG-B
(Regression Analysis)

Row	Column	Current %TW	LTS4	Current Volts	Current Degrees	Plugged In 2003	Previous Volts	Previous %TW	Volt Growth	%TW Growth
4	40	29	9.70	0.13	127	N	0.15	28	-0.02	1
16	22	28	6.57	0.12	107	N	0.09	22	0.03	6
24	43	31	39.00	0.22	131	N	0.18	31	0.04	0
38	45	28	9.63	0.38	165	N	0.33	32	0.05	-4
38	64	32	8.05	0.18	127	N	0.16	28	0.02	4
39	44	19	7.65	0.14	148	Y	0.12	16	0.02	3
		23	8.28	0.43	170	Y	0.36	27	0.07	-4
		32	6.12	0.28	155	Y	0.26	31	0.02	1
		34	16.97	0.18	158	Y	0.20	31	-0.02	3
		32	14.65	0.18	130	Y	0.15	34	0.03	-2
		24	13.16	0.19	150	Y	0.16	28	0.03	-4
40	45	29	8.41	0.27	44	N	0.19	30	0.08	-1
		28	14.99	0.19	154	N	0.13	24	0.06	4
40	46	31	10.17	0.22	144	N	0.21	29	0.01	2
41	39	27	10.94	0.16	80	N	0.16	26	0.00	1
42	34	28	8.83	0.19	137	N	0.19	24	0.00	4
42	42	32	10.62	0.31	146	N	0.22	30	0.09	2
		24	7.26	0.09	130	N	0.11	26	-0.02	-2
		32	7.80	0.16	86	N	0.16	33	0.00	-1
42	47	33	11.04	0.10	90	N	0.11	26	-0.01	7
42	63	25	9.11	0.19	138	N	0.13	26	0.06	-1
		28	13.54	0.15	119	N	0.11	28	0.04	0
43	48	17	26.21	0.08	166	N	0.09	16	-0.01	1
		27	10.74	0.12	98	N	0.09	25	0.03	2
43	49	33	11.87	0.34	168	Y	0.31	29	0.03	4
		32	14.46	0.28	147	Y	0.31	33	-0.03	-1
		27	8.62	0.10	118	Y	0.08	24	0.02	3
43	82	29	4.26	0.12	138	N	0.07	26	0.05	3
45	40	31	12.41	0.78	175	N	0.45	34	0.33	-3
		31	13.18	0.30	145	N	0.21	29	0.09	2
		30	8.82	0.29	154	N	0.24	34	0.05	-4
45	48	32	13.66	0.18	131	N	0.13	30	0.05	2
45	49	34	13.45	0.20	137	N	0.16	27	0.04	7
46	41	36	8.68	0.31	122	N	0.27	36	0.04	0
46	49	24	14.27	0.13	100	N	0.16	34	-0.03	-10
48	43	32	11.47	0.19	102	N	0.20	29	-0.01	3
		28	12.16	0.14	129	N	0.11	24	0.03	4
		28	14.75	0.15	139	N	0.17	26	-0.02	2
		30	8.83	0.32	160	N	0.30	29	0.02	1
		23	9.32	0.08	135	N	0.08	26	0.00	-3
48	61	19	7.40	0.18	154	N	0.14	21	0.04	-2
48	72	24	9.09	0.11	138	N	0.10	25	0.01	-1
49	56	24	11.98	0.09	133	N	0.09	26	0.00	-2
		20	6.22	0.16	158	N	0.11	22	0.05	-2
51	30	35	10.58	0.41	145	N	0.39	35	0.02	0
51	55	35	7.83	0.23	137	N	0.24	36	-0.01	-1

First Span IGA in OTSG-B
(Regression Analysis)

Row	Column	Current %TW	Current LTS4	Current Volts	Current Degrees	Plugged in 2003	Previous Volts	Previous %TW	Volt Growth	%TW Growth
51	79	36	13.56	0.32	139	N	0.22	36	0.10	0
		32	9.84	0.18	134	N	0.21	31	-0.03	1
51	80	31	8.62	0.19	131	N	0.11	27	0.08	4
52	37	26	13.19	0.13	155	N	0.10	24	0.03	2
		25	13.42	0.13	62	N	0.11	28	0.02	-3
		28	13.85	0.19	154	N	0.14	25	0.05	3
		22	17.62	0.05	45	N	0.04	26	0.01	-4
52	49	28	14.72	0.21	143	N	0.17	30	0.04	-2
53	44	25	11.00	0.12	128	N	0.11	31	0.01	-6
		24	8.10	0.12	127	N	0.09	26	0.03	-2
		31	10.67	0.18	99	N	0.14	30	0.04	1
		35	9.70	0.28	129	N	0.26	32	0.02	3
54	82	36	10.77	0.28	123	N	0.24	32	0.04	4
		26	6.19	0.10	107	N	0.09	22	0.01	4
		24	9.71	0.23	146	N	0.16	29	0.07	-5
56	37	27	11.40	0.18	86	N	0.11	25	0.07	2
		32	8.64	0.34	147	N	0.27	29	0.07	3
56	53	33	11.52	0.29	132	N	0.32	26	-0.03	7
		24	13.46	0.15	165	N	0.07	21	0.08	3
		27	14.38	0.20	158	N	0.13	27	0.07	0
		32	5.65	0.24	143	N	0.24	32	0.00	0
57	33	29	14.22	0.24	144	N	0.20	27	0.04	2
		34	27.06	0.22	144	N	0.23	36	-0.01	-2
57	89	22	10.31	0.12	120	N	0.09	21	0.03	1
		28	6.74	0.19	128	N	0.16	27	0.03	1
		25	7.23	0.12	135	N	0.11	25	0.01	0
		20	7.43	0.10	137	N	0.08	13	0.02	7
58	33	19	11.39	0.11	44	N	0.08	25	0.03	-6
		32	15.51	0.22	52	N	0.17	27	0.05	5
		30	8.90	0.25	156	N	0.16	30	0.09	0
58	89	34	5.92	0.25	132	N	0.23	34	0.02	0
59	30	32	9.85	0.29	159	N	0.22	25	0.07	7
59	40	29	9.30	0.11	126	N	0.10	23	0.01	6
59	80	27	12.38	0.20	130	N	0.18	29	0.02	-2
60	34	31	15.66	0.18	67	N	0.14	30	0.04	1
60	44	26	8.34	0.17	138	N	0.15	26	0.02	0
61	25	32	6.87	0.28	133	N	0.27	35	0.01	-3
		34	8.09	0.35	150	N	0.31	33	0.04	1
61	27	36	9.94	0.25	146	N	0.13	29	0.12	7
61	46	21	8.27	0.13	141	N	0.09	22	0.04	-1
61	82	20	12.29	0.14	138	N	0.11	23	0.03	-3
		33	8.41	0.27	131	N	0.21	32	0.06	1
61	88	28	6.05	0.15	113	N	0.13	27	0.02	1
62	28	33	10.60	0.48	147	N	0.48	35	0.00	-2
		25	9.95	0.15	138	N	0.11	28	0.04	-3
		35	8.22	0.22	135	N	0.29	36	-0.07	-1

First Span IGA in OTSG-B
(Regression Analysis)

Row	Column	Current %TW	LTS-4	Current Volts	Current Degrees	Plugged In 2003	Previous Volts	Previous %TW	Volt Growth	%TW Growth
		23	11.38	0.09	103	N	0.08	27	0.01	-4
62	44	32	11.81	0.10	148	N	0.07	30	0.03	2
		25	9.74	0.19	137	N	0.14	27	-0.05	-2
62	99	29	10.14	0.12	131	N	0.13	27	-0.01	2
		34	9.32	0.20	133	N	0.19	35	0.01	-1
63	26	32	11.64	0.15	142	N	0.14	30	0.01	2
		29	27.63	0.33	170	N	0.40	28	-0.07	1
63	41	31	12.41	0.27	129	N	0.22	32	0.05	-1
		30	13.75	0.23	145	N	0.20	27	0.03	3
64	42	34	12.05	0.23	122	N	0.21	34	0.02	0
65	37	30	10.58	0.23	109	N	0.19	33	0.04	-3
		34	8.48	0.23	86	N	0.20	33	0.03	1
		12	6.95	0.06	82	N	0.06	10	0.00	2
		33	17.03	0.26	144	N	0.19	28	0.07	5
		30	16.51	0.17	90	N	0.16	28	0.01	2
		29	12.45	0.16	113	N	0.12	29	0.04	0
		25	12.86	0.13	146	N	0.12	24	0.01	1
65	42	23	6.72	0.12	49	N	0.07	15	0.05	8
65	44	26	11.55	0.19	132	N	0.14	24	0.05	2
		28	14.34	0.19	62	N	0.16	28	0.03	0
65	48	28	7.55	0.11	123	Y	0.11	29	0.00	-1
		21	9.25	0.11	44	Y	0.04	19	0.07	2
		27	8.96	0.14	87	Y	0.12	32	0.02	-5
		18	10.74	0.04	119	Y	0.11	20	-0.07	-2
		26	6.04	0.13	120	Y	0.13	27	0.00	-1
		36	6.83	0.48	166	Y	0.43	32	0.05	4
			13.97	0.04	41	Y	0.06	16	-0.02	-16
65	50	24	12.54	0.10	83	N	0.08	28	0.02	-4
		31	13.71	0.13	117	N	0.12	28	0.01	3
66	34	29	12.61	0.12	112	N	0.11	29	0.01	0
		23	8.77	0.04	80	N	0.06	27	-0.02	-4
67	50	37	11.94	0.22	74	N	0.20	32	0.02	5
68	38	28	16.81	0.17	143	N	0.16	28	0.01	0
		28	15.53	0.19	139	N	0.20	30	-0.01	-2
		26	13.68	0.25	147	N	0.21	25	0.04	1
		28	10.08	0.16	121	N	0.14	29	0.02	-1
		33	11.59	0.24	73	N	0.20	35	0.04	-2
68	99	35	11.41	0.38	67	N	0.30	36	0.08	-1
		36	8.22	0.36	159	N	0.43	31	-0.07	5
69	42	38	13.88	0.30	147	N	0.28	28	0.02	10
70	38	36	15.77	0.12	127	N	0.11	36	0.01	0
		36	17.80	0.25	142	N	0.26	33	-0.01	3
		32	14.15	0.38	167	N	0.18	23	0.20	9
		32	15.49	0.17	150	N	0.09	33	0.08	-1
70	58	33	31.04	0.16	99	N	0.15	27	0.01	6
71	95	28	7.00	0.16	112	N	0.11	26	0.05	2

First Span IGA in OTSG-B
(Regression Analysis)

Row	Column	Current %TW	LTS #	Current Volts	Current Degrees	Plugged In 2003	Previous Volts	Previous %TW	Volt Growth	%TW Growth
73	44	27	24.16	0.18	58	N	0.11	25	0.07	2
77	86	25	7.89	0.15	146	N	0.11	27	0.04	-2
78	41	29	26.06	0.18	102	N		31		-2
78	45	34	25.65	0.25	95	N	0.24	28	0.01	6
78	93	36	11.52	0.43	148	N	0.25	37	0.18	-1
78	95	23	11.26	0.15	147	Y				
		38	9.68	0.21	99	Y				
		33	8.05	0.25	145	Y	0.22	31	0.03	2
		26	7.60	0.14	129	Y				
		15	15.90	0.11	157	Y	0.14	15	-0.03	0
		40	15.41	0.33	140	Y				
		16	13.90	0.13	134	Y				
		36	12.61	0.22	139	Y				
		32	10.42	0.13	135	Y	0.26	28	-0.13	4
		21	13.63	0.12	50	Y				
			17.42	0.30	37	Y			0.30	0
79	43	33	25.91	0.20	133	N	0.18	35	0.02	-2
79	92	30	12.71	0.20	128	N	0.20	34	0.00	-4
		33	14.69	0.21	138	N	0.17	35	0.04	-2
79	97	36	9.46	0.43	135	N	0.35	38	0.08	-2
		32	16.44	0.34	162	N	0.22	36	0.12	-4
80	48	32	5.04	0.19	147	N	0.17	28	0.02	4
80	99	31	10.24	0.42	165	N	0.30	30	0.12	1
		31	11.35	0.17	101	N	0.16	31	0.01	0
		32	14.64	0.26	131	N	0.21	34	0.05	-2
		32	6.98	0.17	83	N	0.14	32	0.03	0
		37	7.84	0.41	160	N	0.33	34	0.08	3
81	104	32	8.48	0.15	124	N	0.11	32	0.04	0
83	100	33	7.94	0.29	144	N	0.20	32	0.09	1
		28	10.95	0.22	150	N	0.12	28	0.10	0
		20	5.98	0.10	51	N	0.08	19	0.02	1
84	31	34	12.57	0.26	128	N	0.26	34	0.00	0
84	93	26	14.38	0.11	129	N	0.10	29	0.01	-3
84	96	28	11.83	0.21	151	Y	0.14	30	0.07	-2
		24	12.37	0.09	143	Y	0.07	22	0.02	2
		35	9.11	0.23	114	Y	0.22	34	0.01	1
84	98	26	9.19	0.13	83	N	0.16	30	-0.03	-4
		23	10.06	0.27	183	N	0.14	18	0.13	5
		33	11.17	0.51	169	N	0.42	35	0.09	-2
		32	12.23	0.37	155	N	0.32	30	0.05	2
		30	13.80	0.12	138	N	0.11	28	0.01	2
		30	16.89	0.10	140	N	0.09	31	0.01	-1
84	100	37	11.25	0.26	176	N	0.15	29	0.11	8
		30	6.94	0.37	166	N	0.19	29	0.18	1
		36	8.34	0.33	149	N	0.26	35	0.07	1
85	43	37	10.38	0.28	141	N	0.25	35	0.03	2

First Span IGA in OTSG-B
(Regression Analysis)

Row	Column	Current %TW	LTS-4	Current Volts	Current Degrees	Plugged in 2003	Previous Volts	Previous %TW	Volt Growth	%TW Growth
85	92	25	8.28	0.13	135	N	0.12	26	0.01	-1
85	96	38	9.74	0.28	91	N	0.23	36	0.05	2
85	98	33	9.74	0.24	140	N	0.24	34	0.00	-1
86	24	37	13.00	0.27	122	N	0.22	34	0.05	3
		33	9.23	0.36	156	N	0.30	34	0.06	-1
87	39	29	12.69	0.16	109	N	0.14	28	0.02	1
88	34	34	12.75	0.22	62	N	0.20	35	0.02	-1
		29	15.45	0.15	130	N	0.13	31	0.02	-2
88	45	34	13.96	0.22	132	N	0.20	35	0.02	-1
89	33	32	9.68	0.29	141	N	0.25	34	0.04	-2
89	39	33	14.25	0.28	139	N	0.24	31	0.04	2
89	89	15	11.34	0.22	168	N	0.17	14	0.05	1
		28	5.83	0.16	132	N	0.13	28	0.03	0
		28	8.39	0.12	131	N	0.19	27	-0.07	1
90	40	16	17.73	0.07	115	N	0.06	25	0.01	-9
		29	11.93	0.12	78	N	0.11	29	0.01	0
		18	9.86	0.09	141	N	0.08	22	0.01	-4
		33	8.28	0.40	149	N	0.33	34	0.07	-1
		36	11.70	0.28	143	N	0.20	32	0.08	4
		27	12.22	0.11	124	N	0.11	25	0.00	2
		33	15.46	0.15	127	N	0.11	27	0.04	6
		30	14.44	0.19	82	N	0.17	31	0.02	-1
90	88	27	5.47	0.23	140	N	0.22	26	0.01	1
91	93	32	9.44	0.13	108	N	0.13	31	0.00	1
91	94	33	10.92	0.19	143	N	0.20	31	-0.01	2
		33	8.15	0.20	134	N	0.18	32	0.02	1
91	98	33	9.12	0.22	116	N	0.17	32	0.05	1
		32	11.33	0.24	124	N	0.22	33	0.02	-1
92	26	29	7.90	0.29	153	N	0.28	27	0.01	2
		22	5.67	0.07	114	N	0.07	21	0.00	1
		34	10.78	0.32	169	N	0.30	34	0.02	0
		37	12.80	0.28	94	N	0.20	34	0.08	3
92	39	33	10.89	0.21	132	N	0.20	32	0.01	1
92	40	29	14.29	0.21	52	N	0.13	29	0.08	0
92	43	37	5.68	0.50	150	N	0.48	35	0.02	2
93	31	26	11.14	0.19	68	N	0.14	27	0.05	-1
		36	12.69	0.25	77	N	0.21	34	0.04	2
93	46	27	15.70	0.21	167	N	0.17	25	0.04	2
		22	6.93	0.19	163	N	0.19	21	0.00	1
		26	12.05	0.13	146	N	0.11	25	0.02	1
		30	10.98	0.35	160	N	0.31	30	0.04	0
93	79	35	10.65	0.21	132	N	0.16	35	0.05	0
93	87	20	7.55	0.17	162	N	0.12	13	0.05	7
93	94	37	12.63	0.35	148	N	0.30	37	0.05	0
		31	7.02	0.65	170	N	0.56	35	0.09	-4
95	36	29	14.96	0.18	135	N	0.19	32	-0.01	-3

First Span IGA in OTSG-B
(Regression Analysis)

Row	Column	Current %TW	Current Volts	Current Degrees	Plugged In 2003	Previous Volts	Previous %TW	Volt Growth	%TW Growth
		27	17.94	0.35	170	N	0.33	25	0.02
		31	9.87	0.19	74	N	0.17	30	0.02
95	45	33	12.56	0.27	142	Y	0.27	32	0.00
		22	16.58	0.07	81	Y	0.08	24	-0.01
		27	11.45	0.15	65	Y	0.11	28	0.04
		25	9.43	0.22	163	Y	0.21	23	0.01
95	47	29	10.79	0.11	105	N	0.11	26	0.00
96	40	34	10.21	0.26	153	N	0.19	35	0.07
96	41	37	11.82	0.37	145	N	0.26	36	0.11
		25	13.21	0.19	153	N	0.14	23	0.05
96	42	40	12.11	0.32	153	Y	0.35	37	-0.03
		34	13.13	0.32	163	Y	0.25	30	0.07
		30	9.54	0.29	158	Y	0.27	30	0.02
96	44	28	6.64	0.13	92	N	0.11	26	0.02
		26	9.03	0.17	54	N	0.14	26	0.03
96	45	33	12.10	0.17	112	N	0.20	32	-0.03
96	91	23	11.99	0.11	142	N	0.09	20	0.02
97	41	30	11.66	0.24	168	N	0.17	30	0.07
		31	13.78	0.27	63	N	0.21	34	0.06
97	49	30	12.14	0.21	140	Y	0.17	33	0.04
		33	15.34	0.25	158	Y	0.22	31	0.03
98	39	37	12.27	0.21	118	N	0.15	34	0.06
		32	14.84	0.20	116	N	0.17	32	0.03
		33	15.75	0.19	132	N	0.13	30	0.06
		26	18.12	0.17	120	N	0.10	27	0.07
		26	6.83	0.15	71	N	0.13	30	0.02
98	42	27	14.93	0.11	59	N	0.16	27	-0.05
		30	12.00	0.24	148	N	0.21	33	0.03
98	45	27	12.30	0.12	59	N	0.08	28	0.04
98	47	27	6.88	0.09	87	N	0.09	22	0.00
		24	17.12	0.15	53	N	0.16	28	-0.01
99	41	32	10.45	0.22	89	N	0.19	32	0.03
100	33	32	10.23	0.21	86	N	0.18	34	0.03
		30	11.07	0.20	74	N	0.20	32	0.00
100	36	36	13.52	0.31	59	N	0.28	33	0.03
		34	7.99	0.34	150	N	0.29	36	0.05
100	38	31	14.95	0.11	94	N	0.11	22	0.00
		34	15.17	0.38	173	N	0.37	31	0.01
		35	17.09	0.19	125	N	0.19	33	0.00
100	41	30	17.34	0.43	155	N	0.34	36	0.09
		36	7.99	0.49	165	N	0.39	34	0.10
100	45	32	14.79	0.16	121	N	0.12	31	0.04
100	66	29	9.91	0.11	129	N	0.10	23	0.01
100	92	34	7.23	0.18	129	N	0.14	26	0.04
		27	9.11	0.24	159	N	0.25	29	-0.01
101	43	29	9.19	0.18	66	N	0.20	31	-0.02

First Span IGA in OTSG-B
(Regression Analysis)

Row	Column	Current %TW	LTS42	Current Volts	Current Degrees	Plugged in 2003	Previous Volts	Previous %TW	Volt Growth	%TW Growth
101	47	17	11.10	0.16	167	N	0.20	26	-0.04	-9
		25	15.17	0.13	56	N	0.10	28	0.03	-3
		30	8.99	0.17	135	N	0.16	31	0.01	-1
101	98	21	17.47	0.11	88	N	0.09	26	0.02	-5
		32	13.29	0.16	143	N	0.13	26	0.03	6
102	41	34	16.16	0.28	149	N	0.30	32	-0.02	2
102	43	27	13.33	0.16	130	N	0.13	27	0.03	0
		31	7.83	0.41	169	N	0.34	33	0.07	-2
		32	12.42	0.24	92	N	0.20	34	0.04	-2
102	44	27	9.59	0.16	63	N	0.15	29	0.01	-2
103	36	37	10.97	0.25	143	N	0.20	32	0.05	5
103	37	37	10.14	0.29	128	N	0.26	33	0.03	4
		33	15.40	0.29	134	N	0.24	33	0.05	0
		26	23.97	0.11	119	N	0.13	28	-0.02	-2
103	41	25	15.78	0.13	92	N	0.12	27	0.01	-2
103	94	34	5.31	0.17	108	N	0.15	30	0.02	4
104	40	25	13.19	0.08	104	N	0.09	28	-0.01	-3
		24	15.27	0.09	90	N	0.18	31	-0.09	-7
104	44	25	11.75	0.13	53	N	0.05	24	0.08	1
		26	12.41	0.14	160	N	0.13	30	0.01	-4
		20	17.88	0.13	49	N	0.10	24	0.03	-4
104	90	28	12.16	0.15	106	N	0.13	32	0.02	-4
		27	14.24	0.07	135	N	0.09	30	-0.02	-3
		34	8.95	0.20	162	N	0.11	33	0.09	1
106	42	37	16.36	0.31	126	N	0.25	34	0.06	3
		28	11.46	0.13	120	N	0.09	25	0.04	3
		31	12.49	0.24	146	N	0.22	31	0.02	0
		27	14.76	0.14	68	N	0.10	28	0.04	-1
106	43	26	7.01	0.10	126	N	0.10	23	0.00	3
106	48	34	8.90	0.32	144	N	0.25	32	0.07	2
106	50	26	10.62	0.15	53	N	0.08	28	0.07	-2
		32	13.63	0.20	69	N	0.25	30	-0.05	2
106	74	23	14.55	0.03	120	N	0.05	14	-0.02	9
		25	9.33	0.16	127	N	0.13	30	0.03	-5
107	47	38	11.81	0.16	117	N	0.17	31	-0.01	7
		31	14.13	0.13	117	N	0.11	29	0.02	2
		30	16.05	0.18	70	N	0.17	33	0.01	-3
		37	7.32	0.28	148	N	0.26	32	0.02	5
107	66	29	14.77	0.10	130	N	0.06	27	0.04	2
		24	6.58	0.09	135	N	0.08	19	0.01	5
		30	7.44	0.15	142	N	0.13	24	0.02	6
		21	12.20	0.08	125	N	0.08	23	0.00	-2
108	34	32	15.09	0.20	66	N	0.21	29	-0.01	3
108	74	33	13.29	0.19	148	N	0.15	30	0.04	3
109	46	28	10.80	0.18	141	N	0.17	34	0.01	-6
		29	12.33	0.14	144	N	0.13	26	0.01	3

First Span IGA in OTSG-B
(Regression Analysis)

Row	Column	Current %TW	LTS-4	Current Volts	Current Degrees	Plugged in 2003	Previous Volts	Previous %TW	Volt Growth	%TW Growth
		28	8.43	0.26	155	N	0.22	27	0.04	1
110	40	28	12.77	0.29	164	N	0.25	26	0.04	2
110	43	35	23.54	0.17	126	N	0.17	31	0.00	4
110	46	30	12.26	0.20	52	N	0.09	29	0.11	1
110	52	30	9.57	0.19	125	N	0.15	32	0.04	-2
		33	14.02	0.17	112	N	0.14	30	0.03	3
		28	10.30	0.23	134	N	0.19	30	0.04	-2
		23	11.39	0.07	128	N	0.08	20	-0.01	3
111	39	23	9.93	0.12	128	N	0.14	28	-0.02	-5
111	42	34	11.58	0.42	162	N	0.36	32	0.06	2
		32	14.49	0.25	174	N	0.19	35	0.06	-3
111	51	34	11.30	0.20	137	N	0.17	35	0.03	-1
113	44	34	10.14	0.28	148	N	0.23	29	0.05	5
		29	12.30	0.30	171	N	0.27	31	0.03	-2
		18	7.80	0.06	90	N	0.06	23	0.00	-5
113	45	31	16.87	0.18	54	N	0.15	31	0.03	0
114	41	29	9.14	0.17	144	N	0.12	23	0.05	6
		35	8.21	0.18	122	N	0.19	34	-0.01	1
114	42	34	11.65	0.41	153	N	0.32	34	0.09	0
		24	26.42	0.09	115	N	0.10	21	-0.01	3
		24	6.93	0.14	172	N	0.07	28	0.07	-4
		31	8.25	0.23	173	N	0.20	33	0.03	-2
		26	8.54	0.23	172	N	0.29	29	-0.06	-3
114	43	30	6.78	0.14	147	N	0.11	31	0.03	-1
		28	7.23	0.17	176	N	0.14	27	0.03	1
		9	25.76	0.04	85	N	0.03	14	0.01	-5
		24	23.58	0.12	82	N	0.14	28	-0.02	-4
		31	11.98	0.26	168	N	0.21	30	0.05	1
		32	10.28	0.34	168	N	0.30	31	0.04	1
114	46	21	6.69	0.14	123	N	0.12	22	0.02	-1
116	43	26	6.28	0.11	137	N	0.09	25	0.02	1
		35	6.69	0.23	137	N	0.19	33	0.04	2
		21	7.05	0.08	125	N	0.07	27	0.01	-6
		28	7.75	0.13	134	N	0.14	28	-0.01	0
118	41	30	5.81	0.20	142	N	0.19	31	0.01	-1
		30	8.75	0.24	60	N	0.18	34	0.06	-4
		29	9.44	0.15	110	N	0.16	33	-0.01	-4
123	77	26	4.44	0.10	112	N	0.10	26	0.00	0
129	41	30	21.41	0.17	102	N	0.15	32	0.02	-2
131	3	24	37.24	0.18	141	N	0.19	24	-0.01	0

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50-302/LICENSE NUMBER DPR-72

ATTACHMENT

SPECIAL REPORT 04-01

APPENDIX 3

TUBES PLUGGED

Appendix Acronyms

OE – Operating Experience
SAI – Single Axial Indication
MAI – Multiple Axial Indications
SCI – Single Circumferential Indication
MAA- Multiple Axial Anomaly
NDD – Non Detectable Degradation
MCI – Multiple Circumferential Indications
SVI – Single Volumetric Indication
TWD –Through-Wall Dimension
OBS - Obstructed
NQI – Non Quantifiable Indication
MVI – Multiple Volumetric Indications
I-Code – Indication Code
LTE – Lower Tube End

Tubes Plugged
OTSG-A

ROW	TUBE	REASON	VOLTS	DEG	IND	%TW	LOCATION	PROBE
2	26	Pluggable I-Code	0.26	83	SAI		15S -5.73	520PP
		Pluggable I-Code	0.31	86	MAI		15S -7.30	520PP
		Pluggable I-Code	0.19	85	SAI		15S -3.28	520PP
2	27	Pluggable I-Code	0.18	100	SAI		15S -7.77	520PP
		Pluggable I-Code	0.21	101	SAI		15S -6.63	520PP
3	18	Rejected Re-roll	1.57	33	SCI		LTE +0.37	460PP
4	7	Rejected Re-roll	0.93	16	SCI		LTE +0.38	460PP
4	8	Rejected Re-roll	1.49	39	SCI		LTE +0.40	460PP
4	25	Rejected Re-roll	1.65	31	SCI		LTE +0.39	460PP
4	29	Rejected Re-roll	1.26	20	MCI		LTE +0.37	460PP
5	14	Rejected Re-roll	1.70	33	SCI		LTE +0.39	460PP
8	5	Rejected Re-roll	0.91	29	SCI		LTE +0.44	520PP
9	59	Preventative for OE	2.54	28	MAA		UTE -0.18	520PP
9	60	Preventative for OE			NDD			510UL
10	60	Rejected Re-roll	0.72	39	SCI		LTE +0.37	460PP
10	61	Rejected Re-roll	2.87	29	MCI		LTE +0.38	520PP
13	1	Rejected Re-roll	1.54	46	SCI		LTE +0.09	520PP
13	67	Pluggable I-Code	0.21	105	SVI		15S +0.03	520PP
15	5	Rejected Re-roll	1.40	29	SCI		LTE +0.37	460PP
18	5	Rejected Re-roll	1.09	38	SCI		LTE +0.42	520PP
18	79	Pluggable I-Code	0.17	111	SVI		UTE -4.07	520PP
20	7	Rejected Re-roll	1.38	27	SCI		LTE +0.42	520PP
21	5	Rejected Re-roll	0.46	16	SCI		LTE +0.35	520PP
32	105	Rejected Re-roll	0.48	27	SCI		LTE +0.37	520PP
35	3	Rejected Re-roll	1.62	23	SCI		LTE +0.42	520PP
36	4	Rejected Re-roll	0.99	29	SCI		LTE +0.39	520PP
39	1	Preventative for OE			NDD			510UL
39	2	Preventative for OE			NDD			510UL
40	1	Preventative for OE			NDD			510UL
41	1	Preventative for OE			NDD			510UL
43	116	Rejected Re-roll	3.84	33	MCI		LTE +0.35	520PP
44	117	Rejected Re-roll	2.00	31	SCI		LTE +0.36	520PP
44	118	Rejected Re-roll	0.75	27	SCI		LTE +0.37	520PP
45	119	Rejected Re-roll	0.71	29	SCI		LTE +0.33	520PP
49	121	Rejected Re-roll	2.23	36	SCI		LTE +0.33	520PP
49	122	Rejected Re-roll	1.13	32	MCI		LTE +0.34	520PP
50	121	Rejected Re-roll	1.11	28	SCI		LTE +0.37	520PP
50	122	Rejected Re-roll	1.14	23	SCI		LTE +0.40	520PP
56	1	Preventative Wear	0.77	87	TWD	26	12S +0.59	510UL
56	3	Preventative Wear	0.94	101	TWD	29	10S +0.70	510UL
56	5	Preventative Wear	0.84	88	TWD	28	09S +0.66	510UL
57	125	Rejected Re-roll	3.66	34	SCI		LTE +0.36	520PP
58	115	Pluggable I-Code	0.58	32	MAI		UTE -3.89	460PP
61	1	Preventative Wear	1.08	97	TWD	31	09S +0.63	510UL

Tubes Plugged
OTSG-A

ROW	TUBE	REASON	VOLTS	DEG	IND	% TWA	LOCATION	PROBE
63	130	Preventative for OE			NDD			510UL
64	1	Preventative Wear	0.67	104	TWD	24	06S -0.72	510UL
64	128	Preventative for OE			NDD			510UL
65	130	Preventative for OE			NDD			510UL
70	66	Pluggable I-Code	0.69	19	SCI		UTE -1.13	460PP
71	5	Preventative for OE			NDD			510UL
75	22	Obstructed Sleeve			OBS		USE -1.18	400PP
75	28	Obstructed Sleeve			OBS		USE -0.00	400PP
75	31	Obstructed Sleeve			OBS		USE -0.00	400PP
75	33	Obstructed Sleeve			OBS		USE -0.00	400PP
75	95	Pluggable I-Code	0.60	22	MAI		UTE -4.36	460PP
75	96	Pluggable I-Code	1.05	26	MAI		UTE -4.22	460PP
77	50	Pluggable I-Code	0.20	83	SVI		UTS +0.21	520PP
95	128	Rejected Re-roll	1.15	22	SCI		LTE +0.11	520PP
98	124	Rejected Re-roll	1.19	38	SCI		LTE +0.42	520PP
100	123	Rejected Re-roll	0.92	35	MCI		LTE +0.36	520PP
102	2	Rejected Re-roll	0.36	34	SCI		LTE +0.28	520PP
103	3	Rejected Re-roll	1.00	25	SCI		LTE +0.29	520PP
105	3	Rejected Re-roll	0.60	24	SCI		LTE +0.43	520PP
110	3	Pluggable I-Code	0.17	91	SVI		15S -0.22	460PP
113	114	Rejected Re-roll	1.11	30	MCI		LTE +0.35	520PP
114	112	Rejected Re-roll	2.16	39	MCI		LTE +0.34	520PP
116	110	Rejected Re-roll	2.79	37	SCI		LTE +0.37	520PP
116	111	Rejected Re-roll	1.02	39	SCI		LTE +0.41	520PP
117	106	Rejected Re-roll	1.12	31	SCI		LTE +0.41	520PP
122	4	Rejected Re-roll	0.48	39	SCI		LTE +0.32	520PP
125	96	Rejected Re-roll	1.38	29	MCI		LTE +0.36	520PP
125	97	Rejected Re-roll	1.70	25	SCI		LTE +0.35	520PP
126	3	Rejected Re-roll	0.69	17	SCI		LTE +0.40	520PP
126	97	Rejected Re-roll	2.84	30	SCI		LTE +0.37	520PP
128	91	Rejected Re-roll	0.81	32	SCI		LTE +0.29	520PP
128	92	Rejected Re-roll	1.98	34	SCI		LTE +0.33	520PP
130	90	Rejected Re-roll	1.44	27	SCI		LTE +0.37	520PP
131	88	Rejected Re-roll	1.69	30	SCI		LTE +0.33	520PP
134	2	Rejected Re-roll	1.06	29	SCI		LTE +0.12	520PP
137	4	Rejected Re-roll	0.82	34	SCI		LTE +0.36	520PP
138	71	Rejected Re-roll	1.67	24	SCI		LTE +0.42	460PP
141	63	Rejected Re-roll	0.69	36	SCI		LTE +0.45	460PP
143	3	Pluggable I-Code	1.21	76	SVI		15S +0.73	460PP
143	3	Pluggable I-Code	1.09	37	SCI		LTE +0.44	520PP
143	12	Rejected Re-roll	0.94	33	SCI		LTE +0.14	520PP
145	48	Rejected Re-roll	0.85	43	SCI		LTE +0.41	460PP

82 Tubes Total in "A" OTSG

Tubes Plugged
OTSG-B

ROW	TUBE	REASON	VOLTS	DEG	IND	% TW	LOCATION	PROBE
5	1	Preventative for OE			NDD			510UL
5	2	Preventative for OE			NDD			510UL
6	3	Preventative for OE			NDD			510UL
6	5	Preventative for OE			NDD			510UL
6	6	Pluggable I-Code	0.27	74	SAI		15S -5.09	520PP
7	2	Preventative for OE			NDD			510UL
7	5	Preventative for OE			NDD			510UL
8	2	Preventative for OE			NDD			510UL
8	3	Preventative for OE			NDD			510UL
8	5	Rejected Re-roll	0.20	122	SVI		UTE -4.51	520PP
18	1	Preventative for OE			NDD			510UL
18	2	Preventative for OE			NDD			510UL
19	1	Preventative for OE			NDD			510UL
19	3	Preventative for OE			NDD			510UL
20	3	Preventative for OE			NDD			510UL
21	89	Preventative for OE			NDD			510UL
21	90	Preventative for OE			NDD			510UL
22	90	Preventative for OE			NDD			510UL
22	92	Preventative for OE			NDD			510UL
23	92	Preventative for OE			NDD			510UL
39	44	(1st Span IGA) (>10% Growth)	0.18	158	TWD	34	LTS +16.97	510HF
43	49	(1st Span IGA) (>10% Growth)	0.10	118	TWD	27	LTS + 8.62	510HF
46	2	Pluggable I-Code	0.47	59	SVI		LTS +0.00	520PP
50	82	Pluggable I-Code	0.16	90	SVI		UTE -4.27	460PP
55	93	Pluggable I-Code	0.17	96	SVI		UTE -3.15	460PP
58	84	Pluggable I-Code	0.16	92	SVI		UTE -4.19	460PP
65	48	(1st Span IGA) (NQI ≤43 deg.)	0.04	41	NQI		LTS +13.97	510HF
68	1	Preventative for OE			NDD			510UL
69	2	Preventative for OE			NDD			510UL
69	112	Preventative for Wear	2.23	88	TWD	39	04S +0.77	510UL
72	31	Pluggable I-Code	1.05	17	SAI		UTE -4.16	460PP
72	34	Pluggable I-Code	0.87	27	SAI		UTE -3.65	460PP
77	9	Preventative for OE			NDD			510UL
78	95	(1st Span IGA) (TWD ≤40% and NQI)	0.33	40	TWD		LTS +15.41	510HF
81	1	Preventative for OE			NDD			510UL
81	2	Preventative for OE			NDD			510UL
83	1	Preventative for OE			NDD			510UL
83	2	Preventative for OE			NDD			510UL
84	96	(1st Span IGA) (>10% Growth)	0.09	143	TWD	24	LTS +12.37	510HF
89	94	Pluggable I-Code	0.13	122	SVI		UTE -2.87	460PP
95	45	(1st Span IGA) (>10% Growth)	0.22	163	TWD	25	LTS +9.43	510HF

Tubes Plugged
OTSG-B

ROW	TUBE	REASON	VOLTS	DEG	IND	% TW	LOCATION	PROBE
96	42	(1st Span IGA) (TWD ≤40%)	0.32	153	TWD	40	LTS +12.11	510HF
97	49	(1st Span IGA) (>10% Growth)	0.25	158	TWD	33	LTS +15.34	510HF
100	123	Preventative for OE			NDD			510UL
101	94	Pluggable I-Code	0.17	90	SVI		UTE -3.36	460PP
101	123	Preventative for OE			NDD			510UL
102	121	Preventative for OE			NDD			510UL
102	122	Preventative for OE			NDD			510UL
109	2	Pluggable I-Code	0.70	24	MAI		UTE -4.14	460PP
114	1	Pluggable I-Code	0.35	80	SAI		15S -1.62	520PP
125	81	Pluggable I-Code	0.84	19	SAI		UTE -4.24	460PP
134	66	Rejected Re-roll	1.14	40	MVI		UTE -4.25	520PP
149	33	Pluggable I-Code	0.41	138	SVI		UTE -3.44	460PP

53 Tubes Total in "B" OTSG

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50-302/LICENSE NUMBER DPR-72

ATTACHMENT

SPECIAL REPORT 04-01

APPENDIX 4

TUBES REPAIRED (RE-ROLLED) & IN-SERVICE

Tubes Repaired (Re-Rolled) & In-Service in OTSG-A

Row	Column	Leg
1	7	Hot
1	8	Hot
1	9	Hot
2	10	Hot
2	11	Hot
3	8	Cold
3	14	Hot
3	15	Cold
3	17	Cold
3	21	Hot
3	31	Hot
4	13	Cold
4	17	Hot
4	26	Hot
4	37	Hot
5	1	Hot
5	3	Hot
5	9	Cold
5	10	Cold
5	20	Hot
5	28	Hot
5	39	Hot
		Cold
5	40	Hot
5	44	Hot
6	1	Hot
6	42	Cold
6	43	Hot
6	49	Hot
7	2	Hot
7	43	Hot
8	2	Hot
8	52	Hot
8	53	Cold
9	3	Hot
9	47	Hot
10	1	Hot
10	50	Hot
11	1	Hot
11	6	Cold
11	63	Hot
11	64	Cold
12	4	Cold
12	67	Hot
		Cold

Row	Column	Leg
14	71	Hot
15	2	Hot
15	70	Hot
15	71	Hot
15	72	Hot
16	74	Hot
16	77	Hot
16	79	Hot
17	3	Cold
17	6	Cold
18	82	Hot
		Cold
19	4	Cold
19	79	Hot
19	84	Hot
20	1	Cold
20	73	Hot
20	80	Hot
21	79	Hot
21	84	Hot
21	88	Cold
22	3	Cold
22	90	Cold
22	91	Hot
23	90	Hot
23	91	Cold
23	93	Hot
24	82	Hot
24	91	Hot
24	94	Hot
25	3	Hot
25	4	Cold
25	6	Cold
25	12	Hot
25	92	Hot
25	95	Cold
26	92	Hot
27	51	Hot
27	68	Hot
27	97	Hot
27	98	Hot
28	98	Hot
28	99	Hot
28	100	Hot
28	101	Cold

Row	Column	Leg
29	103	Hot
30	5	Hot
30	104	Hot
31	105	Hot
32	102	Hot
32	104	Hot
33	105	Cold
33	106	Cold
33	108	Cold
35	105	Hot
35	108	Cold
36	108	Cold
36	110	Hot
		Cold
36	112	Cold
36	113	Cold
37	111	Cold
37	112	Cold
37	113	Hot
37	114	Cold
38	3	Cold
38	57	Hot
38	113	Cold
38	114	Hot
		Cold
39	113	Hot
		Cold
39	114	Cold
40	85	Hot
40	114	Hot
40	116	Hot
40	117	Hot
41	109	Hot
41	114	Hot
		Cold
41	115	Hot
42	3	Cold
42	111	Hot
42	115	Hot
		Cold
42	116	Hot
43	43	Hot
43	118	Hot
44	17	Hot
44	116	Cold

Row	Column	Leg
45	116	Cold
46	116	Cold
46	117	Hot
47	119	Cold
47	121	Hot
48	3	Cold
48	114	Hot
48	116	Hot
48	119	Hot
48	120	Hot
48	122	Hot
49	1	Hot
49	123	Hot
50	57	Hot
50	120	Cold
51	1	Cold
51	3	Cold
51	120	Cold
51	121	Cold
51	122	Hot
		Cold
51	123	Hot
		Cold
52	112	Hot
52	118	Hot
52	122	Cold
53	118	Hot
53	123	Cold
54	40	Hot
55	100	Hot
55	125	Hot
56	108	Cold
56	125	Cold
56	127	Cold
57	80	Hot
59	123	Cold
60	85	Hot
60	127	Hot
		Cold
62	7	Hot
64	74	Hot
65	73	Hot
69	56	Hot
69	127	Hot
75	112	Hot

Tubes Repaired (Re-Rolled) & In-Service in OTSG-A

Row	Column	Leg
78	126	Hot
80	102	Hot
80	124	Hot
81	9	Hot
82	3	Hot
84	1	Hot
86	3	Hot
87	1	Cold
87	6	Hot
87	56	Hot
87	94	Hot
92	121	Hot
93	122	Hot
93	124	Hot
95	126	Hot
96	111	Hot
97	125	Hot
101	122	Hot
102	121	Hot
		Cold
103	123	Hot
104	3	Cold
105	121	Hot
107	3	Cold
108	3	Cold
108	4	Cold
112	1	Cold
112	117	Cold
113	3	Cold
114	1	Hot
114	3	Cold
114	111	Cold
114	113	Hot
114	115	Cold
115	1	Cold
115	111	Hot
115	112	Hot
		Cold
116	1	Hot
		Cold
116	109	Cold
118	1	Hot
		Cold
120	94	Hot
120	106	Hot

Row	Column	Leg
121	3	Cold
121	5	Cold
122	101	Cold
122	103	Hot
123	99	Cold
123	101	Hot
123	102	Hot
125	5	Cold
125	98	Hot
		Cold
126	1	Cold
126	94	Cold
126	95	Cold
126	96	Cold
127	1	Hot
127	2	Hot
127	94	Cold
127	96	Hot
129	4	Cold
129	91	Cold
130	1	Cold
130	2	Hot
130	4	Cold
130	5	Cold
130	91	Cold
132	82	Cold
133	1	Cold
133	86	Hot
134	1	Hot
134	82	Cold
134	84	Hot
134	85	Cold
135	1	Hot
135	4	Cold
135	78	Cold
135	80	Cold
135	81	Hot
137	77	Hot
138	3	Cold
138	10	Cold
138	75	Hot
139	2	Cold
139	70	Cold
140	1	Cold
140	66	Hot

Row	Column	Leg
140	67	Hot
140	69	Hot
140	70	Hot
141	6	Hot
141	64	Hot
142	4	Cold
142	10	Cold
142	52	Hot
142	63	Hot
144	2	Cold
144	7	Cold
144	28	Hot
146	1	Hot
146	43	Hot
146	46	Cold
147	14	Cold
147	42	Cold
147	45	Hot
		Cold
148	18	Cold
148	28	Cold
148	30	Cold
148	31	Cold
148	39	Hot
149	14	Cold
149	24	Hot
149	27	Cold
149	28	Hot
150	7	Hot
150	20	Hot
151	1	Hot
151	3	Cold
151	7	Cold
151	9	Cold
151	15	Hot

Total=288 Tubes

Tubes Repaired (Re-Rolled) & In-Service in OTSG-B

Row	Column	Leg
1	3	Hot
1	4	Hot
1	15	Hot
1	16	Hot
2	9	Hot
2	18	Hot
2	25	Hot
3	3	Hot
3	15	Hot
3	17	Hot
4	2	Hot
4	39	Hot
5	8	Hot
5	9	Hot
6	1	Hot
6	51	Hot
7	53	Hot
8	4	Hot
9	4	Hot
9	5	Hot
9	16	Hot
9	57	Hot
9	60	Hot
10	2	Hot
10	20	Hot
11	2	Hot
12	2	Hot
12	5	Hot
12	71	Hot
13	4	Hot
13	6	Hot
13	8	Hot
14	27	Hot
17	1	Hot
17	82	Hot
18	27	Hot
18	81	Hot
19	76	Cold
20	2	Hot
23	94	Hot
24	1	Hot
24	93	Hot
26	4	Hot
26	6	Cold

Row	Column	Leg
27	98	Hot
27	99	Hot
30	1	Hot
31	8	Cold
32	68	Hot
32	106	Hot
34	107	Hot
37	91	Hot
37	112	Hot
38	47	Hot
38	88	Hot
38	98	Hot
38	112	Hot
38	114	Hot
39	113	Hot
39	114	Hot
40	116	Hot
41	32	Hot
42	52	Hot
44	3	Hot
44	17	Hot
44	28	Hot
45	119	Hot
46	3	Hot
46	47	Hot
48	3	Hot
48	15	Hot
50	1	Hot
50	123	Hot
51	1	Hot
54	1	Hot
55	122	Hot
55	126	Hot
56	1	Cold
56	8	Cold
56	110	Hot
57	111	Hot
57	126	Hot
58	3	Hot
58	12	Cold
58	81	Hot
58	97	Hot
58	126	Hot
58	127	Hot

Row	Column	Leg
59	21	Hot
59	81	Hot
59	109	Hot
61	115	Hot
62	89	Hot
62	128	Hot
63	129	Hot
64	38	Hot
64	128	Hot
65	94	Hot
66	32	Hot
66	131	Hot
67	9	Hot
67	16	Hot
67	46	Hot
67	130	Hot
68	92	Hot
70	52	Hot
72	130	Hot
73	15	Hot
73	61	Hot
73	87	Hot
73	130	Hot
78	67	Cold
78	126	Hot
80	6	Hot
80	109	Hot
81	10	Hot
81	74	Cold
83	64	Hot
85	62	Cold
85	130	Hot
88	2	Cold
90	2	Hot
90	128	Hot
91	111	Hot
93	109	Hot
94	2	Hot
94	49	Hot
94	52	Hot
94	95	Hot
94	126	Hot
96	97	Hot
97	125	Hot

Row	Column	Leg
98	97	Hot
99	1	Hot
99	2	Hot
99	51	Hot
99	64	Hot
99	107	Hot
100	33	Hot
101	1	Hot
101	36	Hot
102	42	Hot
103	64	Hot
103	106	Hot
104	44	Hot
104	46	Hot
105	15	Hot
106	14	Hot
106	45	Hot
107	3	Hot
108	3	Hot
108	118	Hot
109	17	Hot
110	2	Hot
110	42	Hot
110	117	Hot
111	1	Hot
111	114	Hot
111	116	Hot
112	90	Hot
114	112	Hot
115	74	Hot
115	112	Hot
116	30	Hot
116	112	Hot
117	108	Hot
120	17	Hot
121	1	Hot
121	2	Hot
121	3	Hot
121	68	Hot
121	83	Hot
122	82	Hot
123	2	Hot
123	104	Hot
124	1	Hot

Tubes Repaired (Re-Rolled) & In-Service in OTSG-B

Row	Column	Leg
124	3	Hot
124	8	Hot
124	23	Hot
125	27	Hot
125	97	Hot
127	79	Hot
127	97	Hot
129	92	Hot
130	2	Hot
130	3	Hot
130	64	Hot
130	77	Hot
131	2	Hot
131	3	Hot
131	8	Hot
131	19	Hot
131	70	Hot
131	90	Hot
132	21	Hot
132	53	Hot
132	54	Hot
132	84	Hot
133	2	Hot
133	25	Hot
133	32	Hot
134	1	Hot
134	3	Hot
134	84	Hot
135	4	Hot
136	2	Hot
136	3	Hot
136	80	Hot
136	81	Hot
137	4	Hot
137	25	Cold
137	77	Hot
138	3	Hot
138	4	Hot
138	71	Hot
138	72	Hot
139	3	Hot
139	21	Hot
139	73	Hot
140	5	Hot

Row	Column	Leg
140	6	Hot
140	21	Hot
140	68	Hot
141	1	Hot
141	2	Hot
141	5	Hot
141	63	Hot
141	65	Hot
141	67	Hot
142	3	Hot
142	4	Hot
142	5	Hot
142	30	Cold
142	62	Hot
143	31	Hot
144	57	Hot
145	4	Hot
146	4	Hot
146	10	Hot
146	47	Hot
147	1	Hot
147	4	Hot
		Cold
147	7	Hot
147	38	Hot
147	39	Hot
147	40	Hot
147	44	Hot
147	45	Hot
148	2	Hot
148	3	Hot
148	5	Hot
148	7	Hot
148	32	Hot
148	34	Hot
148	35	Hot
149	3	Hot
149	24	Hot
149	29	Hot
149	30	Hot
149	32	Hot
150	27	Hot
151	2	Hot
151	3	Hot

Row	Column	Leg
151	10	Hot

Total=264 Tubes

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50-302/LICENSE NUMBER DPR-72

ATTACHMENT

SPECIAL REPORT 04-01

APPENDIX 5

TUBES WITH TUBE END CRACK (TEC)

REMAINING IN-SERVICE

Tubes with TEC Remaining In-Service
OTSG-A

ROW	TUBE
1	7
1	8
1	9
2	10
2	11
3	14
3	21
3	31
4	17
4	26
4	37
5	1
5	3
5	20
5	21
5	23
5	24
5	28
5	32
5	33
5	39
5	40
5	44
6	1
6	25
6	27
6	30
6	34
6	36
6	43
6	49
7	2
7	30
7	43
8	2
8	26
8	30
8	52
9	3
9	47
9	54
10	1
10	30

ROW	TUBE
10	49
10	50
10	56
11	1
11	39
11	57
11	59
11	63
12	45
12	53
12	65
12	67
13	35
13	37
13	39
13	42
13	47
13	48
13	53
13	54
13	55
13	56
13	68
14	45
14	46
14	47
14	54
14	55
14	66
14	67
14	69
14	70
14	71
15	2
15	39
15	40
15	44
15	46
15	67
15	68
15	70
15	71
15	72

ROW	TUBE
16	40
16	42
16	46
16	48
16	58
16	70
16	73
16	74
16	77
16	79
17	38
17	41
17	57
17	70
17	71
17	72
17	73
17	74
17	75
17	78
18	16
18	50
18	59
18	60
18	70
18	72
18	74
18	75
18	76
18	78
18	82
19	59
19	62
19	69
19	72
19	73
19	74
19	75
19	76
19	77
19	79
19	84
20	39

ROW	TUBE
20	40
20	41
20	42
20	59
20	66
20	68
20	73
20	75
20	76
20	77
20	79
20	80
20	85
21	38
21	61
21	62
21	64
21	73
21	74
21	75
21	76
21	77
21	79
21	81
21	83
21	84
21	85
22	8
22	33
22	52
22	63
22	65
22	66
22	72
22	74
22	76
22	78
22	82
22	85
22	86
22	89
22	91
23	50

Tubes with TEC Remaining In-Service
OTSG-A

ROW	TUBE
23	65
23	69
23	76
23	77
23	78
23	79
23	80
23	81
23	85
23	86
23	89
23	90
23	93
24	24
24	53
24	55
24	66
24	68
24	69
24	77
24	79
24	80
24	82
24	83
24	84
24	86
24	90
24	91
24	94
25	13
25	55
25	59
25	66
25	67
25	78
25	79
25	80
25	81
25	85
25	88
25	89
25	90
25	92

ROW	TUBE
26	43
26	46
26	50
26	55
26	68
26	79
26	81
26	82
26	85
26	86
26	87
26	88
26	90
26	92
26	93
27	56
27	57
27	60
27	66
27	68
27	78
27	79
27	82
27	83
27	84
27	86
27	87
27	88
27	90
27	93
27	97
27	98
28	47
28	59
28	61
28	67
28	70
28	75
28	79
28	80
28	83
28	88
28	89

ROW	TUBE
28	91
28	98
28	99
28	100
29	50
29	54
29	58
29	83
29	93
29	94
29	95
29	97
29	103
30	5
30	13
30	33
30	49
30	51
30	55
30	57
30	59
30	70
30	71
30	72
30	82
30	84
30	89
30	90
30	95
30	96
31	9
31	40
31	43
31	69
31	71
31	86
31	95
31	96
31	105
32	16
32	37
32	48
32	56

ROW	TUBE
32	58
32	59
32	63
32	72
32	83
32	86
32	90
32	91
32	94
32	96
32	97
32	101
32	102
32	104
33	15
33	51
33	65
33	93
33	97
33	100
34	59
34	83
34	90
34	93
34	95
34	96
34	98
34	99
35	60
35	61
35	73
35	74
35	82
35	90
35	95
35	96
35	99
35	105
36	76
36	78
36	86
36	91
36	95

Tubes with TEC Remaining In-Service
OTSG-A

ROW	TUBE
36	97
36	98
36	99
36	100
36	103
36	104
36	105
36	106
36	107
36	109
36	110
37	61
37	76
37	83
37	88
37	89
37	94
37	97
37	98
37	99
37	100
37	103
37	106
37	109
37	110
37	113
38	63
38	77
38	84
38	87
38	95
38	96
38	98
38	99
38	100
38	101
38	104
38	105
38	109
38	111
38	114
38	115
39	36

ROW	TUBE
39	64
39	71
39	76
39	78
39	89
39	90
39	91
39	99
39	100
39	101
39	103
39	104
39	111
39	113
40	15
40	16
40	58
40	77
40	88
40	94
40	99
40	100
40	101
40	111
40	112
40	113
40	114
40	116
41	53
41	60
41	73
41	77
41	89
41	90
41	91
41	95
41	96
41	98
41	99
41	101
41	103
41	104
41	108

ROW	TUBE
41	109
41	111
41	112
41	114
41	115
42	15
42	69
42	90
42	97
42	101
42	102
42	103
42	104
42	105
42	107
42	111
42	114
42	115
42	116
43	56
43	61
43	62
43	80
43	83
43	88
43	90
43	91
43	92
43	93
43	96
43	98
43	99
43	100
43	101
43	107
43	109
43	112
43	114
43	115
43	118
44	60
44	62
44	65

ROW	TUBE
44	89
44	91
44	93
44	94
44	97
44	100
44	101
44	102
44	103
44	105
44	106
44	107
44	109
44	110
44	114
45	66
45	88
45	90
45	91
45	92
45	93
45	97
45	98
45	99
45	102
45	103
45	104
45	106
45	107
45	108
45	109
45	112
45	114
45	117
46	60
46	66
46	69
46	76
46	77
46	86
46	87
46	88
46	96

Tubes with TEC Remaining In-Service
OTSG-A

ROW	TUBE
46	103
46	109
46	113
46	117
47	12
47	62
47	78
47	88
47	92
47	93
47	94
47	98
47	101
47	104
47	105
47	107
47	117
47	119
47	121
48	61
48	63
48	69
48	74
48	90
48	91
48	99
48	110
48	112
48	114
48	116
48	118
48	119
48	120
48	122
49	1
49	51
49	63
49	82
49	88
49	95
49	99
49	100
49	104

ROW	TUBE
49	106
49	110
49	111
49	123
50	58
50	88
50	99
50	110
50	111
50	112
50	115
50	116
50	119
51	24
51	57
51	59
51	76
51	93
51	94
51	95
51	97
51	103
51	107
51	108
51	110
51	111
51	115
51	116
51	118
51	120
51	121
51	122
51	123
52	59
52	62
52	64
52	91
52	101
52	107
52	115
52	117
52	120
53	108

ROW	TUBE
53	115
53	116
53	117
53	118
53	120
53	121
53	122
53	123
54	49
54	92
54	101
54	109
54	113
55	10
55	77
55	83
55	96
55	110
55	125
56	57
56	80
56	108
56	118
57	5
57	7
57	80
57	85
57	87
57	96
57	97
57	112
57	113
57	124
58	7
58	28
58	62
58	74
58	85
58	110
58	111
58	122
58	123
59	19

ROW	TUBE
59	48
59	87
59	94
59	97
59	100
59	105
59	109
59	120
59	121
60	65
60	91
60	96
60	97
60	110
60	115
60	118
60	127
61	16
61	54
61	62
61	64
61	81
61	89
62	69
62	94
62	109
63	62
63	100
64	94
64	103
65	24
65	49
65	56
65	59
65	101
66	60
66	62
66	63
66	79
66	95
66	97
66	98
66	102

Tubes with TEC Remaining In-Service
OTSG-A

ROW	TUBE
66	103
66	109
67	20
67	50
67	54
67	78
67	92
67	97
67	101
67	102
67	103
68	51
68	97
69	55
69	58
69	60
69	62
69	66
69	70
69	71
69	74
69	93
69	103
70	50
70	51
70	55
70	57
70	113
71	51
71	60
71	64
71	91
72	18
72	49
72	50
72	51
72	52
72	57
72	62
72	94
73	24
73	26
73	47

ROW	TUBE
73	53
73	54
73	55
73	60
73	64
74	46
74	49
74	57
74	62
74	64
74	74
75	61
75	63
75	84
75	89
78	30
78	36
78	57
78	67
78	126
79	18
79	29
79	56
79	63
79	64
79	66
79	70
79	71
79	79
79	85
79	92
80	8
80	9
80	13
80	58
80	62
80	64
80	65
80	66
80	67
81	8
81	20
81	38

ROW	TUBE
81	48
81	64
81	67
81	70
81	73
81	102
82	3
82	8
82	10
82	59
82	60
82	63
83	10
83	49
83	50
84	1
84	52
84	73
85	4
85	6
85	8
85	45
85	47
85	48
85	86
86	3
86	9
86	71
86	72
86	73
86	75
87	62
87	70
88	66
89	79
90	46
90	59
91	65
91	70
91	72
91	82
91	83
91	84

ROW	TUBE
91	85
91	87
91	109
92	61
92	67
92	80
92	114
92	121
92	122
92	123
93	92
93	107
93	108
93	111
93	116
93	117
93	121
93	122
93	124
94	73
94	97
94	98
94	113
94	118
94	122
94	123
94	125
95	66
95	69
95	74
95	82
95	110
95	112
95	117
95	119
95	126
96	56
96	64
96	109
96	115
96	116
97	62
97	66

Tubes with TEC Remaining In-Service
OTSG-A

ROW	TUBE
97	72
97	99
97	109
97	113
97	114
97	116
97	117
97	122
97	125
98	60
98	64
98	66
98	85
98	94
98	114
98	115
98	118
98	120
98	122
98	123
99	72
99	78
99	81
99	97
99	110
99	115
99	116
99	122
99	123
100	9
100	64
100	65
100	74
100	77
100	78
100	80
100	96
100	108
100	109
100	110
100	114
100	117
100	121

ROW	TUBE
101	96
101	101
101	109
101	112
101	114
101	115
101	120
101	121
101	122
102	70
102	82
102	114
102	115
102	120
102	121
103	102
103	107
103	112
103	113
103	123
104	82
104	101
104	105
105	64
105	114
105	115
105	121
106	53
106	91
106	98
106	101
106	108
107	93
107	103
107	104
107	107
107	108
107	109
107	112
107	115
107	116
108	48
108	93

ROW	TUBE
108	111
108	112
108	113
109	6
109	25
109	68
109	102
110	98
110	102
111	97
111	99
111	101
112	6
112	42
112	90
112	95
112	99
112	104
112	112
113	107
113	111
114	1
114	85
114	90
114	99
114	104
114	105
114	106
114	108
114	109
114	110
114	111
114	113
115	76
115	102
115	109
115	111
115	112
116	1
116	88
116	92
116	99
116	101

ROW	TUBE
116	105
116	106
116	108
116	109
117	96
118	1
118	96
120	72
120	73
120	79
120	106
121	69
121	71
121	73
121	83
121	96
121	98
122	71
122	79
122	80
122	99
122	103
123	80
123	101
123	102
124	78
124	96
125	95
125	98
126	28
126	72
126	74
126	80
126	87
126	94
127	1
127	2
127	14
127	81
127	92
127	96
128	80
128	89

Tubes with TEC Remaining In-Service
OTSG-A

ROW	TUBE
128	90
129	34
129	69
129	80
129	90
130	2
130	88
131	19
132	17
132	73
133	5
133	42
133	51
133	59
133	61
133	86
134	1
134	11
134	14
134	59
134	60
134	71
134	80
134	84
135	1
135	56
135	81
137	7
137	11
137	49
137	55
137	73
137	77
138	75
139	38
139	45
139	56
139	57
139	58
139	66
140	9
140	58
140	60

ROW	TUBE
140	65
140	66
140	67
140	69
140	70
141	6
141	53
141	54
141	55
141	56
141	58
141	64
142	30
142	50
142	52
142	63
143	53
144	25
144	46
145	43
146	1
146	43
147	45
148	39
149	24
149	28
150	7
150	20
151	1
151	15

Total= 1105 Tubes

Tubes with TEC Remaining In-Service
OTSG-B

ROW	TUBE
1	3
1	4
1	15
1	16
2	9
2	18
2	25
3	3
3	15
3	17
4	2
4	25
4	39
5	8
5	9
6	1
6	12
6	34
6	51
7	20
7	34
7	44
7	47
7	53
8	4
8	11
8	12
8	23
9	4
9	5
9	12
9	15
9	16
9	18
9	48
9	57
9	60
10	2
10	15
10	19
10	34
10	49
10	52

ROW	TUBE
11	2
11	9
11	11
11	12
11	20
11	21
11	23
11	51
12	2
12	5
12	16
12	29
12	36
12	55
12	71
13	4
13	6
13	19
13	20
13	56
14	19
14	20
14	30
14	66
15	8
15	13
15	16
15	19
15	21
15	35
15	45
15	49
15	58
16	11
16	20
16	24
16	25
17	1
17	10
17	13
17	15
17	22
17	25

ROW	TUBE
17	26
17	43
17	76
17	82
18	12
18	14
18	16
18	81
19	6
19	12
19	18
19	47
19	60
20	2
20	31
20	55
21	20
21	27
21	50
22	12
22	16
22	28
22	64
22	79
23	16
23	21
23	23
23	94
24	1
24	19
24	33
24	84
24	93
25	5
25	11
25	24
25	28
25	29
25	58
26	4
26	93
26	94
27	6

ROW	TUBE
27	10
27	19
27	85
27	95
27	98
27	99
28	4
28	6
28	7
28	30
28	66
28	83
28	95
28	97
29	7
29	94
29	96
29	97
30	1
30	8
30	9
30	12
30	97
31	8
31	9
31	18
31	88
31	97
31	99
32	9
32	12
32	13
32	14
32	38
32	53
32	102
32	106
33	5
33	9
33	13
33	15
33	23
33	26

Tubes with TEC Remaining In-Service
OTSG-B

ROW	TUBE
34	23
34	27
34	28
34	39
34	56
34	107
35	6
35	11
35	61
35	104
35	106
36	102
36	104
36	105
36	107
37	7
37	12
37	103
37	112
38	13
38	104
38	111
38	112
38	114
39	11
39	27
39	31
39	70
39	86
39	108
39	113
39	114
40	15
40	116
41	38
41	46
41	102
41	111
41	113
42	13
42	31
42	54
42	63

ROW	TUBE
42	106
42	111
43	14
43	28
43	47
43	107
43	108
43	110
43	111
44	7
44	12
44	14
44	29
44	32
44	109
45	8
45	15
45	29
45	32
45	85
45	119
46	3
46	6
46	14
46	15
46	16
47	14
47	25
47	33
48	3
48	14
48	31
48	34
48	50
48	62
49	9
49	16
49	17
49	23
49	58
49	59
49	62
50	1

ROW	TUBE
50	6
50	113
50	115
50	120
50	122
50	123
51	1
51	112
51	116
51	117
51	119
51	120
51	122
52	7
52	13
52	30
52	53
52	110
52	111
52	114
52	116
52	120
53	5
53	119
53	120
54	1
54	6
54	16
54	108
54	114
54	115
55	4
55	25
55	47
55	115
55	121
55	122
55	123
55	126
56	5
56	17
56	26
56	53

ROW	TUBE
56	55
56	118
56	121
57	5
57	13
57	16
57	71
57	122
57	125
57	126
58	3
58	17
58	114
58	117
58	119
58	120
58	126
59	38
59	113
59	117
59	121
59	122
60	26
60	116
60	122
60	126
60	127
61	121
61	123
62	34
62	123
62	128
63	26
63	37
63	121
64	27
65	69
65	121
66	4
66	9
66	10
66	16
66	50

Tubes with TEC Remaining In-Service
OTSG-B

ROW	TUBE
66	111
66	120
66	131
67	52
67	130
68	26
69	10
69	22
69	54
69	107
70	50
70	52
71	4
71	42
71	43
71	51
71	67
72	39
72	105
72	122
72	130
73	77
73	104
73	130
74	40
74	108
75	53
75	57
75	61
78	34
78	50
78	57
78	126
79	67
80	111
81	85
82	8
82	50
83	126
84	9
84	54
84	59
85	9

ROW	TUBE
85	41
85	53
85	58
85	86
85	130
86	8
86	13
86	55
86	60
87	7
87	107
88	9
88	49
89	7
89	8
89	9
89	21
89	41
90	2
90	7
90	8
90	11
90	13
90	20
90	128
92	7
92	8
92	21
92	24
92	126
93	6
93	7
93	20
93	30
94	2
94	21
94	29
94	49
94	52
94	95
94	126
96	97
97	7

ROW	TUBE
97	8
97	122
98	6
98	7
98	48
98	123
98	124
99	1
99	2
99	5
99	6
99	20
99	51
99	64
99	124
100	5
100	12
100	31
101	1
101	4
101	9
101	36
102	5
102	42
102	106
103	4
103	5
103	31
104	5
104	18
104	44
104	46
105	3
105	4
106	9
106	10
106	45
107	2
107	3
107	10
107	104
108	3
108	10

ROW	TUBE
108	118
109	1
109	13
110	2
110	30
110	34
110	117
111	1
111	12
111	18
111	64
111	114
111	116
112	1
112	2
112	13
113	31
114	12
114	17
114	101
114	112
115	7
115	8
115	12
115	27
115	32
115	40
115	43
115	112
116	9
116	27
116	30
116	92
116	112
117	18
117	25
117	26
117	73
117	77
117	87
117	88
117	89
117	102

Tubes with TEC Remaining In-Service
OTSG-B

ROW	TUBE
117	103
117	108
118	17
119	26
119	32
119	33
119	40
119	87
119	88
120	8
120	13
120	26
120	30
120	36
120	65
120	100
121	1
121	2
121	3
121	18
121	23
121	25
121	26
121	28
121	31
121	38
121	87
121	89
122	5
122	12
122	17
122	26
122	29
122	32
122	36
122	38
122	57
122	61
122	76
122	87
122	88
122	89
123	2

ROW	TUBE
123	6
123	10
123	11
123	17
123	18
123	22
123	28
123	30
123	37
123	74
123	104
124	1
124	3
124	8
124	16
124	23
124	26
124	29
124	98
125	4
125	6
125	11
125	19
125	23
125	29
125	39
125	69
125	73
125	82
125	83
125	95
125	97
126	10
126	25
126	26
126	30
126	31
126	62
126	63
126	70
126	71
126	72
126	79

ROW	TUBE
126	83
127	10
127	15
127	19
127	24
127	34
127	37
127	62
127	63
127	75
127	79
127	80
127	83
127	85
127	89
127	97
128	6
128	8
128	9
128	10
128	12
128	17
128	18
128	19
128	23
128	24
128	37
128	69
128	78
128	81
128	84
129	6
129	10
129	12
129	20
129	23
129	27
129	29
129	68
129	70
129	76
129	77
129	79

ROW	TUBE
129	80
129	92
130	2
130	3
130	5
130	9
130	10
130	22
130	23
130	27
130	28
130	31
130	36
130	40
130	74
130	77
130	78
130	79
131	2
131	3
131	7
131	11
131	14
131	16
131	18
131	20
131	21
131	22
131	23
131	25
131	30
131	35
131	45
131	58
131	63
131	68
131	70
131	74
131	77
131	78
131	84
131	90
132	9

Tubes with TEC Remaining In-Service
OTSG-B

ROW	TUBE
132	13
132	14
132	23
132	26
132	28
132	29
132	30
132	33
132	46
132	55
132	61
132	71
132	73
132	84
133	2
133	8
133	9
133	12
133	13
133	14
133	15
133	16
133	20
133	29
133	44
133	47
133	66
133	72
133	74
133	75
133	76
134	1
134	3
134	7
134	15
134	16
134	18
134	20
134	22
134	25
134	28
134	32
134	40

ROW	TUBE
134	53
134	65
134	72
134	73
134	74
134	84
135	4
135	12
135	13
135	14
135	15
135	16
135	23
135	26
135	27
135	33
135	53
135	59
135	69
135	70
135	72
136	2
136	3
136	4
136	8
136	14
136	19
136	21
136	27
136	40
136	46
136	56
136	61
136	65
136	70
136	71
136	72
136	74
136	75
136	80
137	8
137	9
137	10

ROW	TUBE
137	11
137	14
137	17
137	18
137	24
137	25
137	28
137	29
137	39
137	40
137	66
137	67
137	68
137	69
137	77
138	3
138	6
138	9
138	10
138	11
138	13
138	14
138	16
138	17
138	21
138	23
138	25
138	30
138	31
138	37
138	38
138	63
138	69
138	70
138	71
138	72
139	3
139	7
139	10
139	12
139	13
139	14
139	16

ROW	TUBE
139	17
139	18
139	22
139	26
139	27
139	30
139	37
139	41
139	43
139	48
139	50
139	64
139	73
140	5
140	6
140	7
140	9
140	10
140	11
140	12
140	15
140	16
140	18
140	19
140	20
140	21
140	22
140	23
140	24
140	33
140	36
140	47
140	48
140	56
140	60
140	63
140	68
141	1
141	2
141	5
141	7
141	9
141	10

Tubes with TEC Remaining In-Service
OTSG-B

ROW	TUBE
141	14
141	17
141	18
141	19
141	27
141	33
141	34
141	35
141	36
141	40
141	49
141	63
141	67
142	3
142	4
142	5
142	12
142	16
142	17
142	18
142	21
142	26
142	27
142	32
142	33
142	34
142	45
142	47
142	49
142	62
143	7
143	11
143	12
143	13
143	14
143	15
143	16
143	18
143	20
143	21
143	24
143	25
143	30

ROW	TUBE
143	31
143	32
143	41
143	42
143	44
143	46
143	47
144	11
144	12
144	13
144	14
144	15
144	18
144	22
144	23
144	26
144	27
144	42
144	43
144	57
145	4
145	8
145	10
145	12
145	17
145	19
145	21
145	25
145	26
145	28
145	38
145	43
146	12
146	14
146	18
146	23
146	26
146	29
146	30
146	47
147	4
147	7
147	10

ROW	TUBE
147	13
147	16
147	21
147	23
147	33
147	38
147	39
147	40
147	44
147	45
148	5
148	7
148	15
148	17
148	25
148	32
148	34
148	35
149	24
149	29
149	30
149	32
150	27
151	2
151	3
151	10

Total = 972 Tubes

PROGRESS ENERGY FLORIDA, INC.

CRYSTAL RIVER UNIT 3

DOCKET NUMBER 50-302/LICENSE NUMBER DPR-72

ATTACHMENT

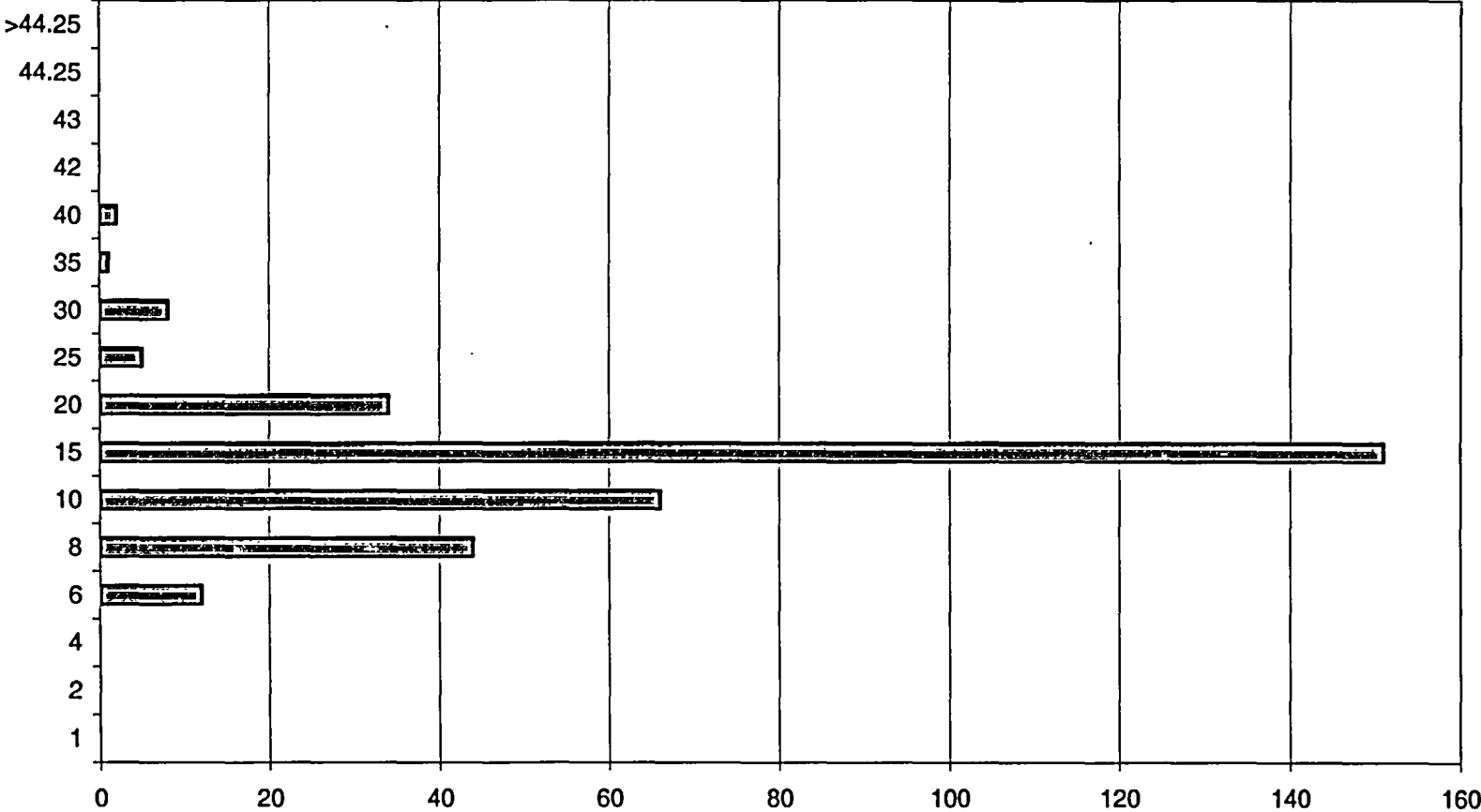
SPECIAL REPORT 04-01

APPENDIX 6

OTSG-B, First Span IGA

CR3 SG-B 1st Span IGA Return to Service
Indication Axial Distribution

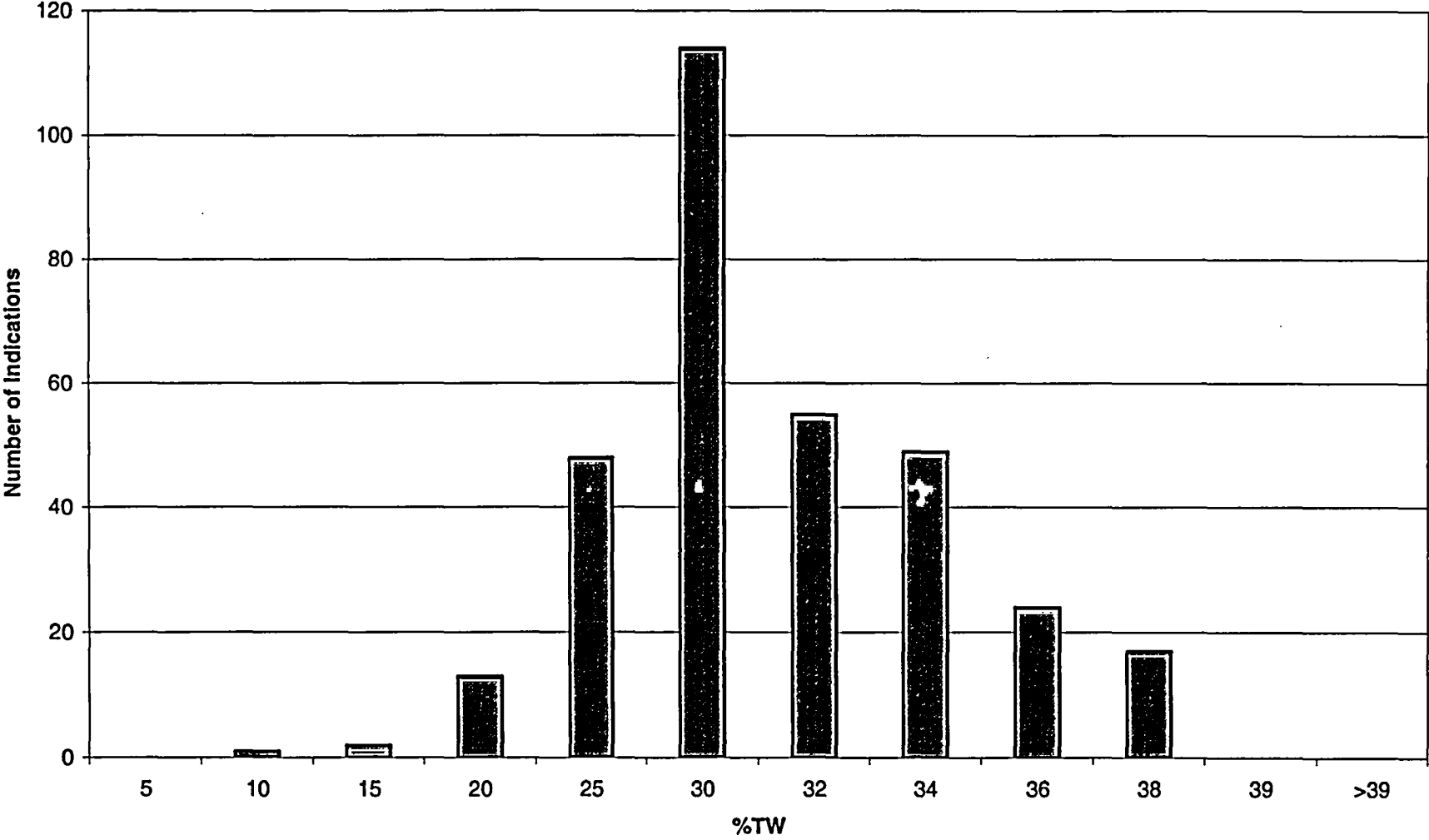
Distance from LTSF (Inches).
Note: 44.25" is 1" below the bottom of the 1st TSP



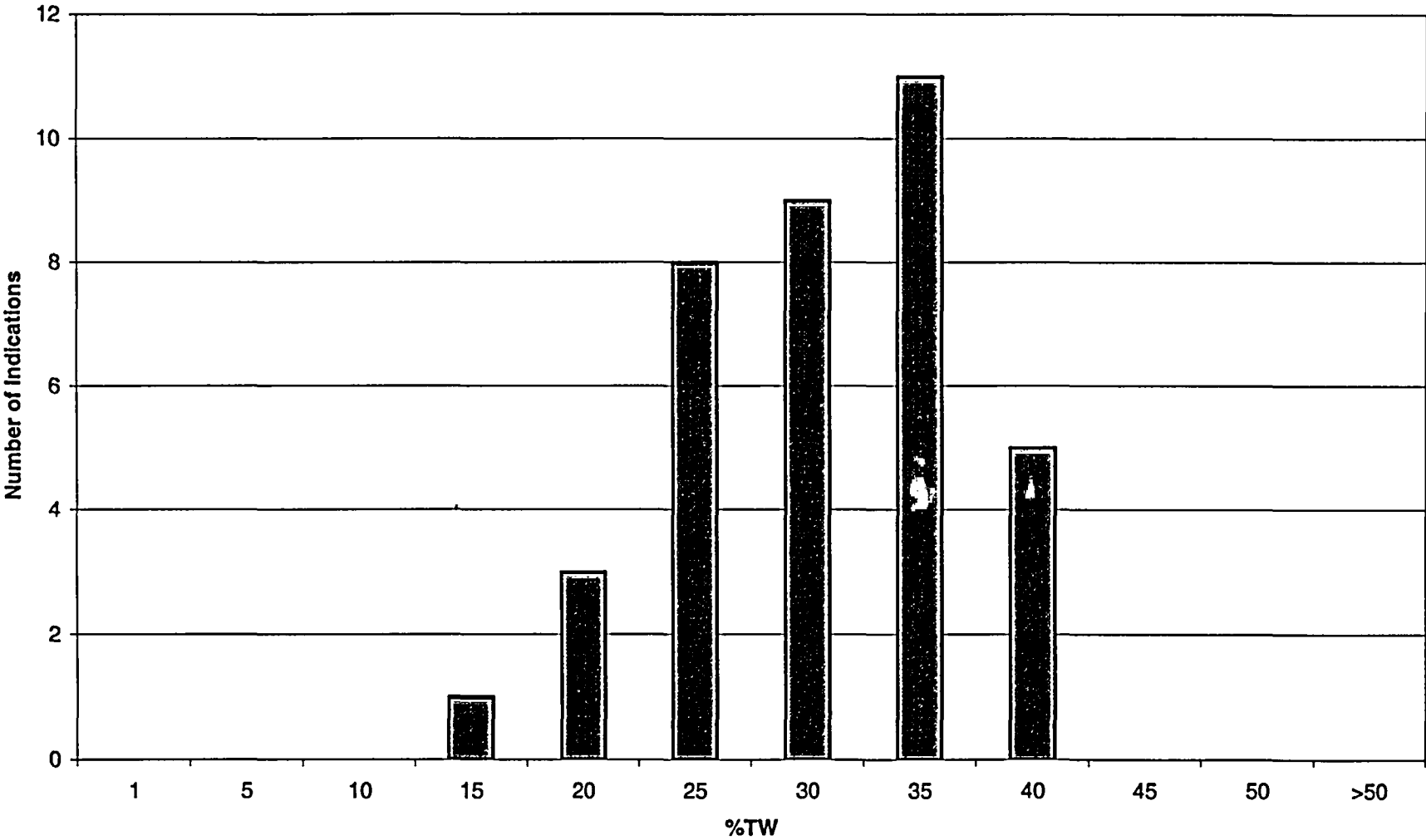
	1	2	4	6	8	10	15	20	25	30	35	40	42	43	44.25	>44.25
Inch1 RTS	0	0	0	12	44	66	151	34	5	8	1	2	0	0	0	0

Number of Indications

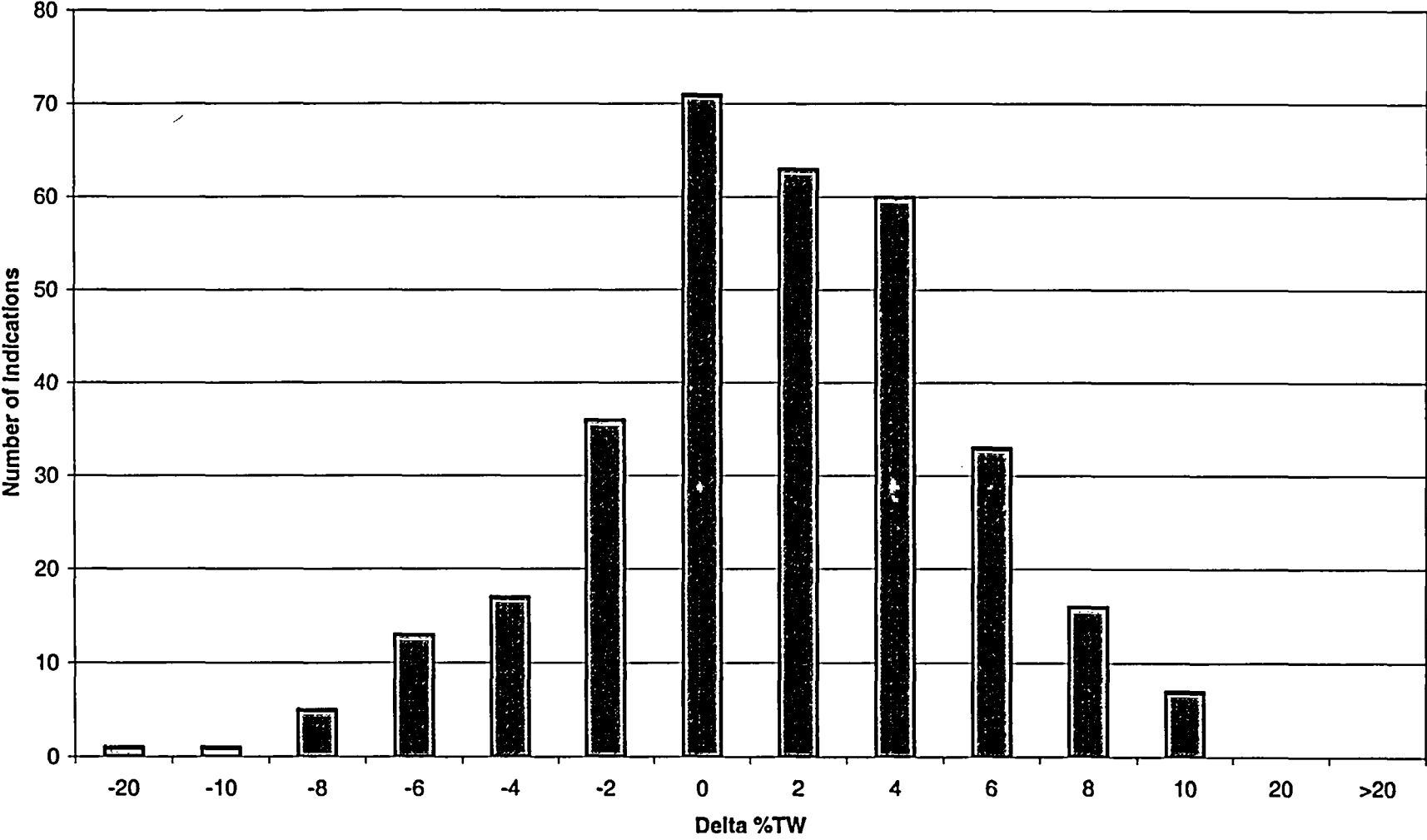
CR3 SG-B 1st Span IGA Return to Service
%TW Distribution



CR3 SG-B 1st Span IGA Removed from Service
%TW Distribution



CR3 SG-B 1st Span IGA Return to Service
%TW Growth Distribution



CR3 SG-B 1st Span IGA Removed from Service
%TW Growth Distribution

