



H. B. Barron  
Vice President

**Duke Energy Corporation**

McGuire Nuclear Station  
12700 Hagers Ferry Road  
Huntersville, NC 28078-9340  
(704) 875-4800 OFFICE  
(704) 875-4809 FAX

December 14, 2000

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555-0001

Subject: McGuire Nuclear Station, Unit 2  
Docket No. 50-370  
Steam Generator Tube Inspection Summary Report  
September 2000, EOC-13 Refueling Outage

Please find attached steam generator tube inspection summary report for inservice inspections conducted during the end of cycle 13 (EOC-13) refueling outage for McGuire Nuclear Station (MNS), Unit 2.

This report is being submitted pursuant to the 90 day filing requirements of Article IWA-6000 of Section XI of the ASME Code. The examinations described in this report were completed on September 22, 2000. This report does not contain any relief requests. Therefore, Duke Energy Corporation has no request for review of these reports.

Any questions on this matter should be directed to Mike Wilder, MNS Licensing and Compliance, at (704) 875-5362.

Sincerely,

H. B. Barron, Vice President  
McGuire Nuclear Station

Attachment

A047

U.S. Nuclear Regulatory Commission

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cc w/o att:      Mr. L. A Reyes  
                    Regional Administrator, Region II  
                    U. S. Nuclear Regulatory Commission  
                    101 Marietta Street, NW, Suite 2900  
                    Atlanta, Georgia 30323

                    Mr. F. Rinaldi, Project Manager  
                    Office of Nuclear Reactor Regulation  
                    U. S. Nuclear Regulatory Commission  
                    One White Flint North, Mail Stop 9H3  
                    Washington, D.C. 20555

                    S. M. Shaeffer  
                    Senior NRC ResidentInspector  
                    McGuire Nuclear Station

U.S. Nuclear Regulatory Commission

March 9, 2000

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bxc w/att: ELL (EC050)

Master File: 1.3.8.1 - Routine Reports

R.L. Gill, Jr. (EC12R)

bxc w/o att: Kay L. Crane (MG01RC)  
Gary D. Gilbert (CN01RC)  
Charles J. Thomas (EC050)  
Lisa Vaughn (PB05E)  
Larry E Nicholson (ON03RC)  
G.W. Crump  
W.M. Sample  
R. Branch

# ***Steam Generator Outage Summary Report***

## ***McGuire Unit 2 2000 Outage EOC 13***

Location: Hwy. 73, Cowans Ford, North Carolina 28216

NRC Docket No. 50-370

National Board No. 84

Commercial Service Date: March 1, 1984

Owner: Duke Energy Corporation  
526 South Church St.  
Charlotte, N.C. 28201-1006

Revision 0

Prepared By: *Sheld W. Culp* Date: *10/10/00*

Reviewed By: *Danny J. Kina* Date: *11-9-00*

Approved By: *Morris Sample* Date: *11-9-00*

Copy No. *1* Assigned To: *NRC Document Control*

Controlled: *✓* Uncontrolled:

**FORM NIS-1 OWNER'S DATA REPORT FOR INSERVICE INSPECTIONS**

**As required by the Provisions of the ASME Code Rules**

1. Owner: Duke Power Company, 526 S. Church St., Charlotte, NC 28201-1006  
(Name and Address of Owner)
2. Plant: McGuire Nuclear Station, 12700 Hagers Ferry Rd., Huntersville, NC 28078  
(Name and Address of Plant)
3. Plant Unit: 2 4. Owner Certificate of Authorization (if required) N/A
5. Commercial Service Date March 1, 1984 6. National Board Number for Unit 84
7. Components Inspected:

<u>Component or</u> <u>Appurtenance</u>	<u>Manufacturer</u> <u>or Installer</u>	<u>Manufacturer or</u> <u>Installer Serial No.</u>	<u>State or</u> <u>Province No.</u>	<u>National</u> <u>Board No.</u>
2A Steam Generator	B&W Canada	7700-02	N/A	159
2B Steam Generator	B&W Canada	7700-04	N/A	161
2C Steam Generator	B&W Canada	7700-01	N/A	158
2D Steam Generator	B&W Canada	7700-03	N/A	160

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8<sup>1</sup>/<sub>2</sub> in. x 11 in., (2) information in items 1 through 6 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

**FORM NIS-1 (Back)**

8. Examination Dates September 11, 2000 to September 22, 2000
9. Inspection Period Identification: 2<sup>nd</sup> Period of the 2<sup>nd</sup> Interval
10. Inspection Interval Identification: 2<sup>nd</sup> Interval
11. Applicable Edition of Section XI 1989 Addenda None
12. Date/Revision of Inspection Plan: 10/10/2000 Rev.1
13. Abstract of Examinations and Test. Refer to Attached Steam Generator Outage Summary Report
14. Abstract of Results of Examination and Tests. Refer to Attached Steam Generator Outage Summary Report
15. Abstract of Corrective Measures. Refer to Attached Steam Generator Outage Summary Report

We certify that a) the statements made in this report are correct b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI, and c) corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization No. (if applicable) N/A Expiration Date N/A

Date 10/11 20 00 Signed Duke Power Co. By William J. Sample  
Owner

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of North Carolina employed by \* The HSBI&I Co. of HARTFORD, CT. have inspected the components described in this Owners' Report during the period 4-16-99 to 11-27-00, and state that to the best of my knowledge and belief, the Owner has performed examinations and tests and taken corrective measures described in the Owners' Report in accordance with the Inspection Plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations, test, and corrective measures described in this Owners' Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection

Q. Klein Commissions NB7728, NC853, N-1  
Inspector's Signature National Board, State, Province, and Endorsements

Date 11-27 19 2000

\* The Hartford Steam Boiler Inspection & Insurance Co.  
200 Ashford Center North  
Suite 300  
Atlanta, GA. 30338

**FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS**  
As Required By The Provisions Of The ASME Code Section XI

1. Owner Address: Duke Power Company  
526 S. Church Street, Charlotte, NC 28201-1006

1a. Date October 2, 2000  
Sheet 1 of 1

2. Plant Address: McGuire Nuclear Station  
12700 Hagers Ferry Road, Huntersville, NC 28078

2a. Unit: ☐ 1 ☒ 2 ☐ 3 ☐ Shared (specify Units \_\_\_\_\_)

3. Work Performed By: Duke Power Company  
Address: 526 S. Church Street, Charlotte NC 28201-1006

3a. Work Order #: 98243461  
Repair Organization Job #

Type Code Symbol Stamp: N/A Authorization No. N/A Expiration Date: N/A

3b. NSM or MM #: N/A

4. (a) Identification of System: NC - Reactor Coolant 4. (b) Class of System: A

5. (a) Applicable Construction Code: ASME III 1971 Edition, Summer and Winter Addenda, N/A Code Cases  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements: 1989, No Addenda (1992 through 1992 Addenda for Class MC and CC and their supports)

6. Identification of Components Repaired or Replaced and Replacement Components:

	Column 1 Name of Component	Column 2 Name of Mfg	Column 3 Mfg Serial No.	Column 4 National Board No.	Column 5 Other Identification	Col 6 Year Built	Column 7 Repaired, Replaced, or Replacement	Column 8 ASME Code Stamped (yes or no)
A	2A Steam Generator	B & W	770002	159	N/A	1996	<input type="checkbox"/> Repaired, <input type="checkbox"/> Replaced, <input checked="" type="checkbox"/> Replacement	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes
B							<input type="checkbox"/> Repaired, <input type="checkbox"/> Replaced, <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
C							<input type="checkbox"/> Repaired, <input type="checkbox"/> Replaced, <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
D							<input type="checkbox"/> Repaired, <input type="checkbox"/> Replaced, <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
E							<input type="checkbox"/> Repaired, <input type="checkbox"/> Replaced, <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes
F							<input type="checkbox"/> Repaired, <input type="checkbox"/> Replaced, <input type="checkbox"/> Replacement	<input type="checkbox"/> No <input type="checkbox"/> Yes

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in. (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

7. Description of Work Replaced one primary manway stud (18)

8. Test Conducted: Hydrostatic ☐ Pneumatic ☐ Nom. Operating Press. ☒ Other ☐ Exempt ☐

Pressure \_\_\_\_\_ psig Test Temp. \_\_\_\_\_ °F

Pressure \_\_\_\_\_ psig Test Temp. \_\_\_\_\_ °F

Pressure \_\_\_\_\_ psig Test Temp. \_\_\_\_\_ °F

9. Remarks The test was performed per work order number 98243956 / 01 during the class A walkdown.

(Applicable Manufacturer's Data Records to be attached)

#### CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair or replacement conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A

Expiration Date N/A

Signed FL Grass Jr. FL Grass Jr., QA Tech Specialist  
Owner or Owner's Designee, Title

Date 10/12/2000

#### CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by HSB and I Company of Hartford Connecticut have inspected the components described in this Owner's Report during the period 9-30-00 to 10-12-00; and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in the Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

R.D. Klein R.D. Klein  
Inspector's Signature

Commissions NB7728, NC853, N-1  
National Board, State, Province and Endorsements

Date 10-12-2000



September 27, 2000

Michael T. Cash  
Regulatory Compliance - MG02RC

Attention: Kay Crane

Subject: McGuire Nuclear Station  
Unit 2 Steam Generator  
September 2000, EOC-13 Refueling Outage  
NRC Inspection Report – 15 Day & 12 Month

Dear Sir,

Pursuant to Technical Specification 5.6.8 part b., the following information is submitted:

1. The following quantity of tubes were inspected from either side of the Generator.

<u>Steam Generator</u>	<u>Tubes Inspected Full Length</u>	<u>Tubes Inspected Partial Length</u>
A	1693	146
B	35	1571
C	23	738
D	1697	147

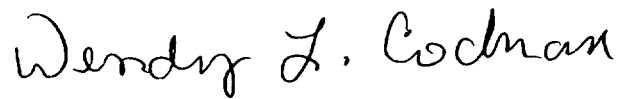
2. The following information is submitted concerning tube indications of imperfections. (The attached list identifies the tubes with imperfections, their locations and their size.)

<u>Steam Generator</u>	<u>Attachment</u>
A	1
B	2
C	3
D	4

3. They were no tubes removed from service by plugging.

If further information is required, please call me at 875-5036.

Sincerely,

A handwritten signature in cursive script that reads "Wendy L. Cochran".

Wendy L. Cochran  
Eddy Current Data Administrator

WLC.wlc

cc: w/o attachments W.F. Brady – EC090  
R.W. Eaker – EC07E  
W.M. Sample - EC07E

cc: w/attachments G.W. Crump - EC07E  
D.E. Kinard - MG01MM

ATTACHMENT #1 - INDICATIONS OF IMPERFECTIONS  
BOBBIN & MRPC

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION	EXT	EXT	PROBE	CAL#	COMMENT1	COMMENT2	LEG
3	52	0.59	45	6	HNI		08H	+28.83	TEH	CBH	560UL	30		HOT
6	41	0.15	85	3	VOL		01H	+6.75	01H	02H	5402C	50		HOT
19	50	0.43	126	1	NQI		CBC	+5.25	09H	TEC	560UL	25		COLD
21	68	0.41	119	P 1	HNI		CBC	+5.69	09H	TEC	560UL	27		COLD
26	43	0.18	87	6	HNI		07H	-2.94	TEH	CBH	560UL	26		HOT
27	36	0.21	86	6	HNI		07H	+34.43	TEH	09H	560UL	26		HOT
29	76	0.16	83	6	HNI		07H	+6.77	TEH	CBH	560UL	16		HOT
33	88	0.20	85	6	HNI		04C	-2.77	09H	TEC	560UL	13		COLD
35	40	0.20	122	4	HNI		02H	+30.31	TEH	CBH	560UL	28		HOT
44	105	0.27	100	6	HNI		06C	+22.53	09H	TEC	560UL	13		COLD
46	81	0.30	61	6	HNI		08C	+26.51	09H	TEC	560UL	13		COLD
47	34	0.43	125	P 1	HNI		05H	+0.46	TEH	CBH	560UL	18		HOT
		0.27	0	P 3	TWD	6	05H	+0.51	05H	05H	5402C	46	WAR	HOT
48	31	0.18	84	6	ADI		01C	+26.61	09H	TEC	560UL	29		COLD
		0.20	40	3	VOL		01C	+26.06	02C	01C	5602C	55		COLD
48	35	0.50	124	P 1	HNI		05H	+0.44	TEH	CBH	560UL	18		HOT
		0.20	0	P 3	TWD	4	05H	+0.46	05H	05H	5402C	46	WAR	HOT
		0.28	0	P 3	TWD	6	05H	+0.57	05H	05H	5402C	50	WAR	HOT
61	70	0.23	0	P 2	NQI		FB5	+1.63	09H	TEC	560UL	25	WAR	COLD
		0.36	0	P 3	TWD	7	FB5	+1.72	FB5	FB5	5202C	57	WAR	COLD
63	56	0.17	90	6	HNI		03H	+20.17	TEH	09H	560UL	22		HOT
65	60	0.17	90	6	ADI		04C	+36.14	08H	TEC	560UL	25		COLD
70	79	0.82	72	6	HNI		02H	+15.56	TEH	CBH	560UL	6		HOT
72	103	0.22	85	6	HNI		04C	+28.16	09H	TEC	560UL	5		COLD
91	44	0.47	38	6	HNI		03C	+28.71	09H	TEC	560UL	21		COLD
94	41	0.22	101	6	HNI		05C	+7.15	09H	TEC	560UL	21		COLD
94	107	0.57	125	4	HNI		02H	+18.89	TEH	CBH	560UL	6		HOT
95	48	0.54	82	6	HNI		01C	+27.23	09H	TEC	560UL	21		COLD
96	75	0.13	0	P 2	NQI		FB6	+0.66	09H	TEC	560UL	29	WAR	COLD
		0.24	0	P 3	TWD	5	FB6	+0.68	FB6	FB6	5202C	57	WAR	COLD

Total Tubes : 24  
Total Records: 30

ATTACHMENT #2 - INDICATIONS OF IMPERFECTIONS  
BOBBIN & MRPC

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION	EXT	EXT	PROBE	CAL#	COMMENT1	COMMENT2	LEG
1	82	0.44	82	6	ADI		08C +34.92	CBC	TEC	560UL	13			COLD
2	123	0.48	80	6	HNI		09H -10.13	09H	TEC	560UL	13			COLD
9	130	0.14	92	6	HNI		03H +18.10	TEH	TEC	560UL	71			COLD
18	105	0.20	90	6	HNI		02C +11.26	09H	TEC	560UL	37			COLD
		0.17	85	6	HNI		02C +11.27	TEH	TEC	560UL	71			COLD
25	24	0.40	58	6	HNI		06C +34.05	09H	TEC	560UL	55			COLD
		0.54	55	6	HNI		06C +34.38	TEH	TEC	560UL	71			COLD
47	80	0.08	80	6	HNI		04H +30.30	TEH	TEC	560UL	71			COLD
49	70	0.34	92	6	HNI		01H +26.87	TEH	TEC	560UL	71			COLD
49	82	0.55	25	1	HNI		09C +12.48	09H	TEC	560UL	37			COLD
		3.27	18	P 1	HNI		09C +12.04	TEH	TEC	560UL	71			COLD
54	73	0.15	94	6	HNI		05H +12.61	TEH	TEC	560UL	71			COLD
62	61	1.16	19	1	HNI		09C +13.04	09H	TEC	560UL	63			COLD
		1.23	18	1	HNI		09C +12.87	TEH	TEC	560UL	71			COLD
66	83	0.09	78	6	HNI		05H +10.39	TEH	TEC	560UL	71			COLD
68	71	0.20	127	P 1	HNI		CBH +3.02	09H	TEC	560UL	55			COLD
		0.23	127	P 1	HNI		CBH +3.86	TEH	TEC	560UL	71			COLD
74	71	0.22	94	6	HNI		05H +13.85	TEH	TEC	560UL	71			COLD
75	108	0.28	77	6	HNI		04H +23.74	TEH	TEC	560UL	71			COLD
76	77	0.25	98	6	HNI		02C +21.08	09H	TEC	560UL	27			COLD
		0.25	93	6	HNI		02C +21.12	TEH	TEC	560UL	71			COLD
78	77	0.11	0	P 2	NQI		FB2 +0.77	09H	TEC	560UL	23	WAR		COLD
		0.11	0	P 2	NQI		FB2 +0.75	TEH	TEC	560UL	71	WAR		COLD
		0.35	0	P 3	TWD 9		FB2 +0.67	FB2	FB2	5202C	77	WAR		COLD
81	78	0.17	0	P 2	NQI		FB5 +1.00	09H	TEC	560UL	27	WAR		COLD
		0.19	0	P 2	NQI		FB5 +0.95	TEH	TEC	560UL	71	WAR		COLD
		0.50	0	P 3	TWD 11		FB5 +1.05	FB5	FB5	5202C	75	WAR		COLD
87	78	0.31	122	4	HNI		01C +32.49	08H	TEC	560UL	63			COLD
		0.23	124	4	HNI		01C +32.52	TEH	TEC	560UL	71			COLD
89	72	0.22	52	6	HNI		09C +15.22	08H	TEC	560UL	51			COLD
		0.18	70	6	HNI		09C +15.61	TEH	TEC	560UL	71			COLD
99	80	0.18	75	6	HNI		08C +32.55	09H	TEC	560UL	27			COLD
		1.42	80	6	HNI		08C +31.39	TEH	TEC	560UL	71			COLD
100	95	0.40	77	6	HNI		TSH +7.85	TEH	TEC	560UL	71			COLD
104	49	0.15	92	6	HNI		04H +26.07	TEH	TEC	560UL	71			COLD

Total Tubes : 22  
Total Records: 35

ATTACHMENT #3 - INDICATIONS OF IMPERFECTIONS  
BOBBIN & MRPC

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION	EXT	EXT	PROBE	CAL#	COMMENT1	COMMENT2	LEG
1	128	14.06	179	1	DNT		CBH	+6.73	TEH	CBH	560UL	6		HOT
		8.40	194	3	DNT		CBH	+6.70	CBH	CBC	5202C	64		HOT
27	30	0.74	83	6	HNI		03H	+13.06	TEH	09C	560UL	46		HOT
		0.68	80	6	HNI		03H	+13.06	TEH	TEC	560UL	48		HOT
43	60	0.17	80	6	HNI		01H	+5.74	TEH	09C	560UL	34		HOT
		0.15	81	6	HNI		01H	+5.70	TEH	TEC	560UL	48		HOT
43	66	0.22	97	6	HNI		02C	+12.32	TEH	TEC	560UL	48		HOT
44	105	0.18	88	6	HNI		TSC	+11.52	TEH	TEC	560UL	48		HOT
47	50	0.18	0	P 2	NQI		FB4	+0.64	TEH	09C	560UL	34	WAR	HOT
		0.45	0	P 3	TWD	14	FB4	+0.47	FB4	FB4	5202C	64	WAR	HOT
48	71	1.19	76	6	HNI		01H	+20.16	TEH	09C	560UL	46		HOT
		1.17	75	6	HNI		01H	+20.16	TEH	TEC	560UL	48		HOT
49	68	0.14	158	1	HNI		02C	+12.62	TEH	TEC	560UL	48		HOT
51	86	0.09	0	P 2	NQI		FB4	-1.80	TEH	TEC	560UL	48	WAR	HOT
		0.22	0	P 2	NQI		FB4	-1.86	TEH	08C	560UL	42	WAR	HOT
		0.28	0	P 3	TWD	9	FB4	-1.88	FB4	FB4	5202C	64	WAR	HOT
68	15	0.24	52	6	HNI		TSH	+14.81	TEH	09C	560UL	46		HOT
		0.54	86	6	ADI		02H	+19.13	TEH	09C	560UL	46		HOT
		0.60	89	6	ADI		02H	+19.42	TEH	TEC	560UL	48		HOT
		0.28	48	6	HNI		TSH	+14.83	TEH	TEC	560UL	48		HOT
68	49	0.24	0	P 2	NQI		FB5	-0.60	TEH	08C	560UL	36	WAR	HOT
		0.12	0	P 2	NQI		FB5	-0.60	TEH	TEC	560UL	48	WAR	HOT
		0.29	0	P 3	TWD	8	FB5	-0.41	FB5	FB5	5202C	62	WAR	HOT
68	63	0.08	0	P 2	NQI		FB5	-1.52	TEH	09C	560UL	32	WAR	HOT
		0.07	0	P 2	NQI		FB5	-1.73	TEH	TEC	560UL	48	WAR	HOT
		0.11	0	P 3	TWD	4	FB5	-1.63	FB5	FB5	5202C	64	WAR	HOT
68	85	0.20	0	P 2	NQI		FB5	+0.87	TEH	TEC	560UL	48	WAR	HOT
		0.19	0	P 2	NQI		FB5	+0.78	TEH	09C	560UL	42	WAR	HOT
		0.34	0	P 3	TWD	11	FB5	+1.04	FB5	FB5	5202C	64	WAR	HOT
69	120	0.35	100	6	HNI		02H	+7.96	TEH	09C	560UL	46		HOT
		0.31	166	1	HNI		02H	+7.96	TEH	TEC	560UL	48		HOT
71	48	0.12	67	6	HNI		02C	+3.53	TEH	TEC	560UL	48		HOT
71	64	0.08	0	P 2	NQI		FB5	+1.25	TEH	TEC	560UL	48	WAR	HOT
		0.10	0	P 2	NQI		FB5	+1.26	TEH	08C	560UL	22	WAR	HOT
		0.29	0	P 3	TWD	9	FB5	+1.30	FB5	FB5	5202C	64	WAR	HOT
90	117	0.80	63	6	HNI		09H	+10.27	TEH	TEC	560UL	48		HOT
		0.99	70	6	HNI		09H	+10.27	TEH	09C	560UL	42		HOT
104	57	1.51	84	6	HNI		06C	+16.71	TEH	TEC	560UL	48		HOT
105	78	0.16	0	P 2	NQI		FB4	+1.33	TEH	TEC	560UL	48	WAR	HOT
		0.21	0	P 2	NQI		FB4	+1.44	TEH	08C	560UL	42	WAR	HOT
		0.35	0	P 3	TWD	11	FB4	+1.43	FB4	FB4	5202C	64	WAR	HOT
		0.34	0	P 3	TWD	12	FB4	+1.39	FB4	FB4	5202C	66	WAR	HOT

Total Tubes : 19  
Total Records: 42

ATTACHMENT #4 - INDICATIONS OF IMPERFECTIONS  
BOBBIN & MRPC

ROW	COL	VOLTS	DEG	CHN	IND	%TW	LOCATION	EXT	EXT	PROBE	CAL#	COMMENT1	COMMENT2	LEG
1	14	0.27	80	6	HNI		01H		TEH	CBH	560UL	6		HOT
9	14	0.13	80	6	HNI		01C		CBC	TEC	560UL	11		COLD
20	121	0.60	76	6	HNI		02C		CBC	TEC	560UL	15		COLD
41	34	0.23	109	6	HNI		02H		TEH	09C	560UL	20		HOT
58	53	0.48	72	6	HNI		05C		CBC	TEC	560UL	5		COLD
		0.36	74	6	HNI		05C		CBC	TEC	560UL	5		COLD
62	75	0.08	0	P 2	NQI		FB3		09H	TEC	560UL	19	WAR	COLD
		0.13	0	P 2	NQI		FB3		TEH	09C	560UL	40	WAR	HOT
		0.60	0	P 3	TWD	10	FB3		FB3	FB3	5202C	27	WAR	COLD
69	60	0.54	107	6	ADI		05H		TEH	09C	560UL	20		HOT
82	37	0.36	86	6	HNI		08H		TEH	08C	560UL	32		HOT
83	82	0.26	0	P 2	NQI		FB3		TEH	09C	560UL	38	WAR	HOT
		0.35	0	P 3	TWD	6	FB3		FB3	FB4	5402C	64	WAR	HOT
84	95	0.75	80	6	ADI		03H		TEH	09C	560UL	38		HOT
		1.30	79	6	ADI		01H		TEH	09C	560UL	38		HOT

Total Tubes : 10  
Total Records: 15