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THE WURLITZER COMPANY

NORTH TONAWANDA DIVISION
NORTH TONAWANDA NEW YORK

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW
1st Review Date: 6/18/97
Authority: DADC ADD
Name: RBCramer
2nd Review Date:
Authority: ADD
Name:
1. Classification Cancelled
2. Classification Changed to:
3. Contains No DOE Classified Information
4. Coordinate with:
5. Contains UCNI?
6. Comments:

PRE-FIRING AND CONSTRUCTION DATA

P. O. 14-5532

PRODUCTION OF XMC-913 POWER SUPPLY

APRIL 21, 1959

(Unit Nos. 228, 229, 231, 232, and 233)

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW
DOWNGRADE
CLASSIFIED BY: Emilda Seph 7/22/97 U
PERSON CHANGING CLASSIFICATION: Carmela Dabbyo 7/22/97
PERSON VERIFYING CLASSIFICATION: W.C. Layne 97SN2345 7/7/95
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Approved by: John B. Ivanhoe
John B. Ivanhoe
Senior Engineer

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Following is the chemical composition of the calcium strip used in units 228, 229, 231, 232, and 233 as given by the suppliers.

Peerless Roll Leaf Co. - Lot "P"

Element		Per Cent
N_2		.038
Fe	less than	.001
Al		.04
Mg		.21
Mn		.0008
Si	less than	.001
Cr		.001
Ni	less than	.001
Co		not detected
B		not detected
Cu		.001
Na	less than	.005
Li	less than	.005
K	less than	.005
Ca		Balance

Charles Hardy, Inc.

Element	Per Cent
Fe	.006
Mn	.018
Ni	.390
Al	.250
Mg	.285
Ca	Balance

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XMC-913 PRE-FIRING DATA

Unit No. 223	Date Assembled 4/8/59	Disposition Shipped	
Assembled By: R.A.N.	Date Closed 4/9/59	Drying Time 15 Hrs.	
Checked By: W.R.T.	Leak Test OK / Hi-Pot Test OK	Drying Temp. 140°F	

Squib Res. ohms	
S1	S2
4.543	4.669

Monitor Switch Resistance ohms
.056

TERMINAL	-	#7	#14	#110	#220	#350	#450	S1	S2	M
Cold Voltage (volts)		7.6	11.5	2.8	1.6	1.5	1.2			
Polarity		OK	OK	OK	OK	OK	OK			
Resistance to Case (Megohm)	#50K	#50K	#50K	#50K	#50K	#50K	#50K	#50K	#50K	#50K
Resistance, Terminal to all other Terminals before Destructive Test (Megohm)	16	7	13	1.1K	3.8K	3.8K	3.8K	#50K	#50K	#50K
Resistance, Terminal to all other Terminals after Destructive Test (Megohm)										

STACK NUMBER	1	2	3	4	5
Mean Heat Content (cal./pad)	1103	1087	906	906	906
Mean Wt. of Electrolyte (gr./pad)	1.050	1.050	1.050	1.050	1.050
Mean Wt. of Depolarizer (gr./pad)	.650	.650	.650	.650	.650
Total Wt. of Cell Stack (gr.)	432.3	463.9	458.3	456.1	457.8
Total Wt. of Heat Pads (gr.)	105.2	112.7	105.2	105.1	105.4
Total Wt. of Stack Assembly (gr.)	537.5	576.6	563.5	561.2	563.2

Remarks: Stack #2 cells contain off eutectic electrolyte (65% KCl and 35% LiCl)

CALCIUM METAL		
Stack No.	Rolled By	Source of Block Calcium
1	Pearless Lot "P"	Metal Hydrides
2	Pearless Lot "P"	Metal Hydrides
3	Charles Hardy	New England Lime Co.
4	Charles Hardy	New England Lime Co.
5	Charles Hardy	New England Lime Co.

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XMC-913 PRE-FIRING DATA

Unit No. 229	Date Assembled 4/8/59	Disposition Shipped	
Assembled By: R.A.N.	Date Closed 4/9/59	Drying Time 15 Hrs.	
Checked By: W.R.T.	Leak Test OK	Hi-Pot Test OK	Drying Temp. 140°F

Squib Res. ohms	
S1	S2
4.599	4.510

Monitor Switch Resistance ohms
.062

TERMINAL	-	#7	#14	#110	#220	#350	#450	S1	S2	M
Cold Voltage (volts)		5.5	7.7	1.6	1.3	1.2	1.1			
Polarity		OK	OK	OK	OK	OK	OK			
Resistance to Case (Megohm)	#50K	#50K	#50K	#50K	#50K	#50K	#50K	#50K	#50K	#50K
Resistance, Terminal to all other Terminals before Destructive Test (Megohm)	29	16	38	2.3K	4K	4.4K	5K	#50K	#50K	#50K
Resistance, Terminal to all other Terminals after Destructive Test (Megohm)										

STACK NUMBER	1	2	3	4	5
Mean Heat Content (cal./pad)	1103	1087	906	906	906
Mean Wt. of Electrolyte (gr./pad)	1.050	1.050	1.050	1.050	1.050
Mean Wt. of Depolariser (gr./pad)	.650	.650	.650	.650	.650
Total Wt. of Cell Stack (gr.)	432.3	465.2	462.5	462.8	460.3
Total Wt. of Heat Pads (gr.)	105.1	112.7	104.8	104.8	104.8
Total Wt. of Stack Assembly (gr.)	537.4	577.9	567.3	567.6	565.1

Remarks: Stack #2 cells contain off eutectic electrolyte (65% KCl and 35% LiCl)

CALCIUM METAL		
Stack No.	Rolled By	Source of Block Calcium
1	Peerless Lot "P"	Metal Hydrides
2	"	"
3	"	"
4	"	"
5	"	"

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XMC-913 PRE-FIRING DATA

Unit No. 231	Date Assembled 4/8/59	Disposition Shipped	
Assembled By: R.A.N.	Date Closed 4/9/59	Drying Time 15 Hrs.	
Checked By: W.R.T.	Leak Test OK	Hi-Pot Test OK	Drying Temp. 140°F

Squib Res. ohms	
S1	S2
4.489	4.653

Monitor Switch Resistance ohms
.069

TERMINAL	-	#7	#14	#110	#220	#350	#450	S1	S2	M
Cold Voltage (volts)	X	8.2	13	1.7	1.5	1.5	1.4	X	X	X
Polarity	X	OK	OK	OK	OK	OK	OK	X	X	X
Resistance to Case (Megohm)	#50K	#50K	#50K	#50K	#50K	#50K	#50K	#50K	#50K	#50K
Resistance, Terminal to all other Terminals before Destructive Test (Megohm)	11	4.8	8.5	1.9K	4K	2K	2.4K	#50K	#50K	#50K
Resistance, Terminal to all other Terminals after Destructive Test (Megohm)										

STACK NUMBER	1	2	3	4	5
Mean Heat Content (cal./pad)	1103	1087	906	906	906
Mean Wt. of Electrolyte (gr./pad)	1.050	1.050	1.050	1.050	1.050
Mean Wt. of Depolarizer (gr./pad)	.650	.650	.650	.650	.650
Total Wt. of Cell Stack (gr.)	430.2	466.3	464.1	463.3	462.9
Total Wt. of Heat Pads (gr.)	105.1	112.7	105.1	105.1	105.3
Total Wt. of Stack Assembly (gr.)	535.3	579.0	569.2	568.4	568.2

Remarks: Stack #2 cells contain off eutectic electrolyte (65% KCl and 35% LiCl)

CALCIUM METAL		
Stack No.	Rolled By	Source of Block Calcium
1	Peerless Lot "P"	Metal Hydrides
2	"	"
3	"	"
4	"	"
5	"	"

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XMC-913 PRE-FIRING DATA

Unit No. 232	Date Assembled 4/3/59	Disposition Shipped	
Assembled By: R.A.N.	Date Closed 4/9/59	Drying Time 15 Hrs.	
Checked By: W.R.T.	Leak Test OK / Hi-Pot Test: OK	Drying Temp. 140°F	

Squib Res. ohms	
S1	S2
4.712	4.494

Monitor Switch Resistance ohms
.094

TERMINAL	-	#7	#14	#110	#220	#350	#450	S1	S2	M
Cold Voltage (volts)	X	6.6	10.5	4.0	2.2	1.7	1.7	X	X	X
Polarity	X	OK	OK	OK	OK	OK	OK	X	X	X
Resistance to Case (Megohm)	#50K	#50K	#50K	#50K	#50K	#50K	#50K	#50K	#50K	#50K
Resistance, Terminal to all other Terminals before Destructive Test (Megohm)	16	7.5	14	550	2.6K	3.5K	1.8K	#50K	#50K	#50K
Resistance, Terminal to all other Terminals after Destructive Test (Megohm)										

STACK NUMBER	1	2	3	4	5
Mean Heat Content (cal./pad)	1103	1087	906	906	906
Mean Wt. of Electrolyte (gr./pad)	1.050	1.050	1.050	1.050	1.050
Mean Wt. of Depolarizer (gr./pad)	.650	.650	.650	.650	.650
Total Wt. of Cell Stack (gr.)	431.9	466.3	464.2	463.3	463.7
Total Wt. of Heat Pads (gr.)	105.5	112.7	105.3	105.5	105.3
Total Wt. of Stack Assembly (gr.)	537.4	579.0	569.5	568.8	569.0

Remarks: Stack #2 cells contain off eutectic electrolyte (65% KCl and 35% LiCl)

CALCIUM METAL		
Stack No.	Rolled By	Source of Block Calcium
1	Pearlene lot "P"	Metal Hydrides
2	"	"
3	"	"
4	"	"
5	"	"

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XMC-913 PRE-FIRING DATA

Unit No. 233	Date Assembled 4/9/59		Disposition Shipped		
Assembled By: R.A.N.	Date Closed 4/10/59		Drying Time 15 Hrs.		
Checked By: K.R.T.	Leak Test OK	Hi-Pot Test: OK	Drying Temp. 140°F		

Squib Res. ohms	
S1	S2
4.334	4.395

Monitor Switch Resistance ohms
0.070

TERMINAL	-	#7	#14	#110	#220	#350	#450	S1	S2	M
Cold Voltage (volts)		7.1	11.5	3.1	1.6	1.4	1.35			
Polarity		OK	OK	OK	OK	OK	OK			
Resistance to Case (Megohm)	#50K	#50K	#50K	#50K	#50K	40K	20K	#50K	#50K	#50K
Resistance, Terminal to all other Terminals before Destructive Test (Megohm)	15	6	10.5	650	2.5K	3K	2.2K	7K	7K	4.5K
Resistance, Terminal to all other Terminals after Destructive Test (Megohm)										

STACK NUMBER	1	2	3	4	5
Mean Heat Content (cal./pad)	1103	1087	906	906	906
Mean Wt. of Electrolyte (gr./pad)	1.050	1.030	1.050	1.050	1.050
Mean Wt. of Depolarizer (gr./pad)	.650	.650	.662	.662	.650
Total Wt. of Cell Stack (gr.)	435.1	465.8	465.7	447.7	466.1
Total Wt. of Heat Pads (gr.)	105.7	114.9	105.0	105.1	105.0
Total Wt. of Stack Assembly (gr.)	540.8	580.7	570.7	572.8	571.1

Remarks: Stack #2 cells contain off eutectic electrolyte (65% KCl and 35% LiCl)

CALCIUM METAL		
Stack No.	Rolled By	Source of Block Calcium
1	Peerless Lot "P"	Metal Hydrides
2	"	"
3	"	"
4	"	"
5	"	"

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