g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GE-Cell Test**

Test Procedure for a compressed 77mm SCR Cell

DOCUMENT REVISION STATUS: Determined by the last entry in the "REV" and "DATE" column

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	S. Cash	7/31/2009
B	Added additional time to step 6.7.3 to keep from getting errors due to residual voltages	G. Chandler	8/14/2009
C			

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
S. Cash	Glen Chandler		Charlie Wade
DATE	**DATE**	**DATE**	**DATE**
7/28/2009	8/14/2009		7/28/2009

1. SCOPE

1.1 This is a functional testing procedure for a compressed 77mm SCR Cell.

2. STANDARDS OF QUALITY

2.1 Refer to the current revision of the IPC-A-610 standard for workmanship standards.

3. APPLICABLE DOCUMENTS

3.1 The following document(s) shall form part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue shall apply.

3.1.1

4. ENGINEERING REQUIREMENTS

4.1 Equipment Cleaning

4.1.1 Equipment should be clean and free of debris prior to applying power unless performing an initial check. Refer to the local documented procedures for cleaning guidelines.

4.2 Equipment Inspection

4.2.1 Equipment should be visually inspected for any defects prior to applying power. This inspection should include the following as a minimum:

4.2.1.1 Wires - broken, cracked, or loosely connected
4.2.1.2 Terminal strips / connectors - broken or cracked
4.2.1.3 Components - visually damaged
4.2.1.4 Capacitors - bloated or leaking
4.2.1.5 Solder joints - damaged or cold
4.2.1.6 Circuit board - burned or de-laminated
4.2.1.7 Printed wire runs / Traces - burned or damaged

5. EQUIPMENT REQUIRED

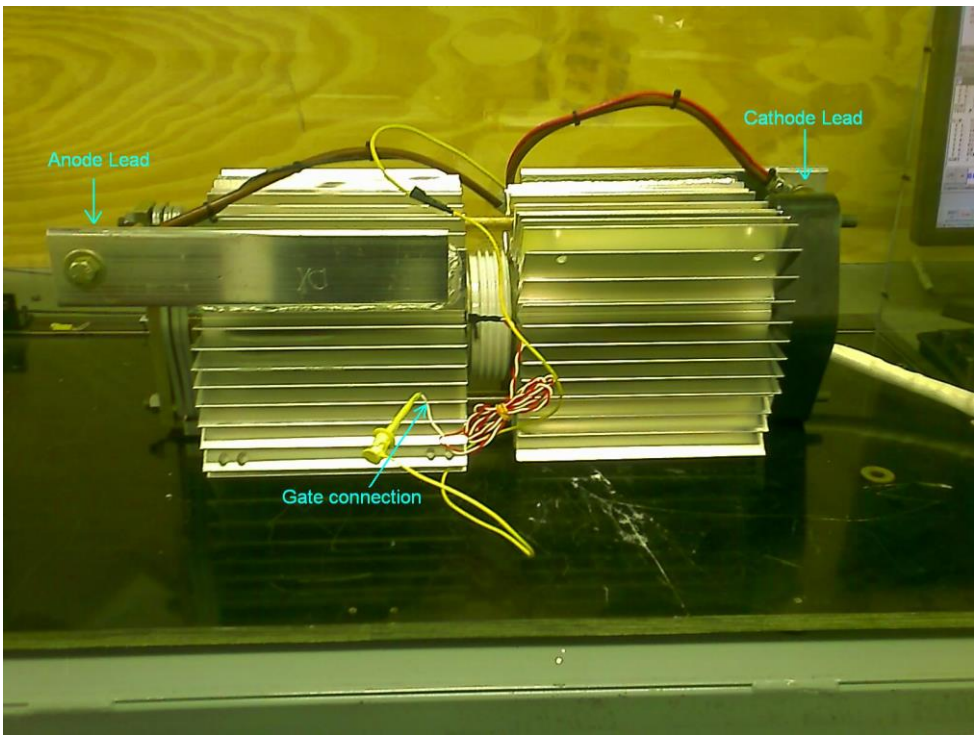
5.1 The following equipment is required to perform the process requirements. Equipment may be substituted provided that all accuracy's and test ratios are equivalent or better.

Qty	Reference #	Description
1		ST Tester

6. Testing Process for the Scientific Tester

6.1 Setup

6.1.1 Connect the SCR stack as in picture below.



6.2 To open cell test (if unfamiliar with ST tester refer to Cell Stack-C test procedure)

6.2.1 Click Test Program

6.2.2 Click Program Generator

6.2.3 Select file **68A7628P44**

6.2.4 Click open

6.3 Sending info to tester

6.3.1 Click the first button in the lower left corner of the Test Program window or press F5 to send the program to the tester. A successful transmission will display “Receiving Program” on the 5300HS

6.3.2 After the program is received it will display “ready to test” and the device name should appear in the bottom left hand corner of the display

6.3.3 Click runtime on the main window

6.3.4 Click open exact value

6.3.5 Two windows appear

6.3.6 Exit open STI data file

6.3.7 Exit data log serial number

6.4 Testing Procedure

6.4.1 STI Exact Value/Lot Summary

6.4.2 There are several options available for testing: measurements or pass/fail and single test or complete testing. **Use complete testing unless troubleshooting.**

6.5 Measurement

6.5.1 Click the M box then click the Start Command button (red dot)

6.5.2 Readings appear in the upper left screen

6.5.3 Under Single Test select number 2 and repeat the above instructions. Repeat for each test step.

6.6 Pass/Fail

6.6.1 Click the PF box then click the Start Command button (red dot)

6.6.2 Readings appear in the upper left screen

6.6.3 Under Single Test select number 2 and repeat the above instructions. Repeat for each test step.

6.7 Complete Test (Preferred test method unless have problem with just one step and are troubleshooting)

6.7.1 Click in either P\F or M box and run one test.

6.7.2 Now after running one test make sure neither P\F or M is highlighted.

6.7.3 Click the Start Command button (red dot) and all tests will run with results in the left panel of the exact value window. Be sure to wait 5 seconds between tests, otherwise you will experience failures due to residual voltages.

6.7.4 Test unit 5 times.

6.8 ****TEST COMPLETE ****

7. NOTES

7.1 None at this time

8. ATTACHMENTS

8.1 None at this time