| g GE Energy | **Functional Testing Specification** |
|---|---|
| ***Parts & Repair Services***<br>***Louisville, KY*** | **CAN-GEB-632L0535G1** |

# Test Procedure for a SCR cell stack

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

| REV. | DESCRIPTION | SIGNATURE | REV. DATE |
|---|---|---|---|
| A | Initial release | G. Chandler | 3/28/2013 |
| B | | | |
| C | | | |



| PREPARED BY | REVIEWED BY | REVIEWED BY | QUALITY APPROVAL |
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| G. Chandler | | | Charlie Wade |
| **DATE** | **DATE** | **DATE** | **DATE** |
| 3/28/2013 | | | 3/29/2013 |

## 1. SCOPE

**1.1** This is a functional testing procedure for a SCR cell stack.

## 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** Check board's electronic folder for more information

## 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 site specific SRA's 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 | | Fluke 87 DMM (or Equivalent) |
| 1 | | Light Bulb load |
| 1 | | SCR Firing Box |
| 1 | | 120 Variac |
| | | |

## 6. Testing Process

### 6.1 Testing Procedure

**6.1.1** Connect the light bulb load across the individual SCRs, one at a time, and use the SCR firing box, (isolated pulses output) to fire the corresponding SCR. Use the inputs on the snubber card to connect the SCR firing box to the SCRs.

**6.1.2** To fire the crowbar SCR connect the light bulb across the POS and NEG busses. Disconnect the crowbar gate wire from the circuit board and connect the firing box to the loose wire and the cathode of the crowbar SCR.

**6.1.3** The crowbar circuit card needs to be verified. Use the appropriate test equipment and schematic to verify each individual component and circuit integrity.

***6.2 ***TEST COMPLETE ******

## 7. Notes

**7.1** None at this time.

## 8. Attachments

**8.1** None at this time.