1. INTRODUCTORY DESCRIPTION

A. This procedure establishes the methods for testing a pressed and non-pressed Cell Stack assembly
B. Environmental ranges: 70 +/- 10 Deg. F. with 20-75% R.H.
C. Unit warm-up/stabilization period requirement: None
D. Personnel using this procedure are expected to have a high degree of confidence and expertise in related testing and calibration procedures.
E. Procedures not explained here are considered to be understood as common practice.

2. TEST EQUIPMENT VERIFICATION

A. Verify the accuracy of the standard(s) used in the repair/calibration process by evidence of recent calibration labeling affixed to the test equipment.
B. All measurement standards used in this procedure shall be traceable to the NATIONAL INSTITUTE of STANDARDS and TECHNOLOGY (N.I.S.T.) and shall have the accuracy, stability, range and resolution required for the intended use.
C. Unless otherwise specified, the collective uncertainty of the Measurement Standard(s) shall not exceed twenty five percent of the acceptable tolerance for each characteristic being calibrated.
D. All deviations shall be documented.

3. EQUIPMENT CLEANING

A. All equipment clean will be performed as instructed in the GE Renewal Services SOP Sec. 14.0

4. EQUIPMENT INSPECTION

A. The following criteria should be used as a guideline or basis for the inspection process of this unit:
    1. Wires broken or cracked.
    2. Terminal strips / connectors broken or cracked.
    3. Loose wires.
    4. Components visually damaged.
    5. Capacitors leaking.
    6. Solder joint, cold or otherwise inadequate.
    7. Circuit board discolored or burned.
    8. Printed wire runs burned or damaged.

5. REVISION HISTORY

Revision	Date	Initials	Reason for Revision
A	06/14/02	RKD	Initial Procedure – Copied hand written procedure to this form.
B			
C			
D			
E			
F			
G			
H			
I			
J			
K			

6. REFERENCE DOCUMENTATION

- Reference:

7. THEORY OF OPERATION

- Reference: GEK

8. TEST EQUIPMENT TO BE USED

- Digital Insulation Tester
- Cell Stack test station

9. FINAL TEST AND OPERATION PROCESS

Electrical / Functional Testing

- Using a Digital Insulation Tester (Megger) measure the resistance from Anode to Cathode of each cell. Value should be over 5 Meg.
- Using a Digital Insulation Tester (Megger) measure the resistance from Cathode to Anode of each cell. Value should be over 5 Meg.

Note: Units with multiple cells should have Megger results comparable from cell to cell.

- Place the assembly in the SCR test station.

Cell Test

- Clamp test leads to Anode and Cathode sides of cell to be tested.
- Connect gating leads as follows, White lead to Gate and Red lead to Cathode.
- Close door and make sure all safety latches are in place.
- Push “480 ON” button.
- Push “LOAD ON” button.
- Push “INC LOAD” button until meter reads approximately 75.
- Push “INC SPEED” button until motor is at max speed.
- Look for imperfections in phasing waveform displayed on scope.
- Push “INC LOAD” button until max load is reached.
- Let system run for several seconds at max load.
- Push “ DEC LOAD” button until load is at about 50% of Max.
- Let system run for about one minute.
- Push “MOTOR OFF” button.
- Push “POWER OFF” button.

End of Cell test

- Repeat cell test for each cell in the assembly.
- Test Complete

10. SPECIAL INFORMATION

TEST WRITTEN BY: James Archibald **DATE:** 6/14/02

TEST VERIFIED BY: **DATE:**