

Eaton Valve Regulated (Sealed) Battery System IEEE Installation Inspection (IEEE 1187 and 1188) Scope of Work Attachment R-7

IEEE Installation Inspection of Battery Equipment includes, and is expressly limited to, those tasks set forth below. ¹Due to the size and type of battery, testing and work procedures vary between battery jars above and below 100 watts per battery; work procedures may vary by UPS or related device and battery type and may be limited by safety requirements. All additional work will be billable at the applicable rates per Attachment X-1.

Performed During Installation Inspection in Accordance with IEEE¹:

1. Measure and Record the following:
 - a. Overall float voltage and DC current at battery terminals
 - b. 100% polarity validation of positive to negative connections
 - c. 100% individual cell/battery float voltages.
 - d. Charger output current and voltage at the UPS meters
 - e. AC ripple current and voltage imposed on the battery
 - f. Validate all connections are secure; terminals, Andersons, breakers, etc.
 - g. Internal ohmic values of each cell/battery or perform a continuity test of each cell/battery
 - h. Connection Resistance of 100% of the inter cell/battery connection
 - i. Ambient temperature
 - j. 100% negative post temperature of each cell / jar.
 - k. Negative terminal temperature of one cell/battery per battery cabinet shelf or rack tier
 - l. Condition of applicable monitoring equipment
 - m. Condition of ventilation equipment
2. Visually inspect conditions and appearance of the following:
 - a. Connection terminals inter cell/battery connectors, cables and associated hardware
 - b. Cell/battery covers, containers, and post seals
 - c. Battery racks or cabinets and associated components and hardware
 - d. Cell/battery jar or cover, noting any excessive distortion
 - e. Current and / or storage onsite environmental conditions
3. Perform cleaning of all accessible surfaces as required:
4. Reporting for Installation Inspection in Accordance with IEEE:
 - a. The technician(s) will issue the customer a verbal report summarizing the condition of the battery and identifying any critical issues before leaving the customer's site.
 - b. A detailed report containing all readings and observations will be sent to the customer within five business days.
5. Note: If an IEEE performance or acceptance testing is desired, please add load bank, data logging and IR scanning. Contact the Eaton Power Quality Area Manager for pricing.

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