

Exhibit B – UPS Preventive Maintenance Detail

1. UPS Full System Preventive Maintenance Service

a. Semi-Annual Service

- i. Perform temperature checks on all breakers, connections, and associated controls. Repair and/or report all high temperature areas.
- ii. Perform a complete visual inspection of the equipment including subassemblies, wiring harnesses, contacts, cables, and major components.
- iii. Check air filters for cleanliness.
- iv. Check module(s) completely.
- v. Rectifier and inverter snubber boards for discoloration.
- vi. Record all voltage and current meter readings on the module control cabinet or the system control cabinet.

b. Annual Service includes the above, plus:

- i. Check the inverter and rectifier snubbers for burned or broken wires.
- ii. Spot check nuts, bolts, screws, and connectors for tightness and heat discoloration.
- iii. Check fuses on the DC capacitor deck for continuity (if applicable).
- iv. With customer approval, perform operational tests of the systems including unit transfer and battery discharge.
- v. Check and verify the units are operating with the current manufacturer firmware and update as necessary.
- vi. Calibrate and record all electronics to system specifications.
- vii. Check or perform Engineering Field Change Notices (FCN) as necessary.
- viii. Measure and record all low-voltage power supply levels.
- ix. Record phase-to-phase input voltage and currents.
- x. Review system performance with customer to address any questions and to schedule any repairs.
- xi. Check power capacitors for swelling or leaking oil. (if applicable)
- xii. Inspect DC capacitor vent caps that have extruded more than 1/8". (if applicable)
- xiii. Measure and record harmonic trap filter currents. (if applicable)

During the initial PM visit, an Annual Service PM must be performed.

c. UPS Batter Preventive Maintenance Service

- i. Guaranteed 4-hour on-site emergency response, 7 days/week, 24 hours/day. Resolution of incidents within 72 hours.
- ii. Includes 100% corrective labor and travel coverage 7 days/week, 24 hours/day. Includes battery recycling as required, with documentation meeting EPA requirements.
- iii. Performed by Liebert factory trained Battery Specialist or Customer Engineers. Preventive Maintenance Service scheduled by the customer between 8am-5pm, Monday-Friday (excluding national holidays).

- iv. Single Jar Replacement Service for Batteries: Includes freight, labor, disposal, and batteries.
 - v. All perform maintenance reports will be sent to UCHS provided email within 7 business days.
- d. Battery Inspection Service
- i. Check the integrity of the battery cabinet.
 - ii. Visual inspection of the battery cabinet and/or room to include:
 - Check for NO-OX grease or oil on all connections (if applicable).
 - Check batteries for signs of swelling.
 - Check for corrosion on all the terminals and cables.
 - Examine the physical cleanliness of the battery room and jars.
 - iii. Measure and record DC bus ripple voltage (if applicable).
 - iv. Measure and record the total battery float voltage.
- e. Biannual Battery Service
- i. Inspect the appearance and cleanliness of the battery and the battery room. Clean normal jar top dirt accumulation (to be done only with battery offline).
 - ii. Measure and record the total battery float voltage and charging current.
 - iii. Measure and record the overall AC ripple voltage.
 - iv. Measure and record the overall AC ripple current.
 - v. Visually inspect the jars and covers for cracks and leakage.
 - vi. Visually inspect for evidence of corrosion.
 - vii. Measure and record the ambient temperature.
 - viii. Verify the integrity of the battery rack/cabinet.
 - ix. Measure and record 100% of the jar temperatures.
 - x. Measure and record the float voltage of all jars.
 - xi. Measure and record all internal ohmic readings.
 - xii. Record installation date of each battery.
 - xiii. Provide a detailed report noting any deficiencies and corrective action needed, taken and/or planned to provide UCDH email.
- f. Annual Battery Service includes the above, plus:
- i. Re-tighten all connections to the battery manufacturer's specifications, if required. Refer to the manufacturer's literature to determine if re-tightening is required.
 - ii. Measure and record all battery connection resistances, when applicable.
- g. Single Jar Replacement
- i. UCDH prefers to replace a failed battery instead of a full string. Full battery replacement will be conducted every five years.

- h. Corrective Maintenance Performed as Required
 - i. Refurbish jar connections as deemed necessary by the detailed inspection report.
 - ii. All issues classified as “non-emergency” incidents, such as a defective LCD panel, shall be scheduled with customer for corrective action.
 - iii. Resolution time for corrective maintenance items shall fall within the expected resolution time of 72 hours once corrective maintenance begins.

2. Problem Definitions

a. Critical Problems

- i. Definition: A **Critical Problem** is defined as an incident that renders UCDH system(s) unusable until the problem is resolved. There are no acceptable alternatives or workarounds available to restore partial and/or temporary service. Resolution of the problem is considered to be of the utmost priority.
- ii. Example: A **Critical Problem** would include operational or total failure of the following equipment but is not limited to: Main control board, failed battery causing an open in the battery string, Inverter or Rectifier.
- iii. Expectations: For **Critical Problems**, an industry qualified technician would be onsite within the required 4-hour response time from the time of the reported incident with the appropriate replacement part/s or equipment based upon availability of the part or equipment which needs replacing. The replacement may be a newer version of equipment as older and discontinued parts may not be available or hard to procure. If the replacement part or equipment is not available, the vendor will make the best effort to obtain the part or equipment as quickly as possible. The vendor will provide an estimate on when this part or equipment will be onsite.

b. Major Problems

- i. Definition: A **Major Problem** is defined as an incident that prevents the normal operation of UCHS system(s) but does not preclude the system(s) usability. There are acceptable alternatives or workarounds available to restore partial and/or temporary service until the problem is resolved.
- ii. Examples: A **Major Problem** would include partial or total failure of any of the following equipment but is not limited to: Leaking battery case, System cooling fan.
- iii. Expectations: For **Major Problems**, an industry qualified technician would be onsite the business day following the reported incident to diagnose the reported problem, identify and order the appropriate replacement part/s or equipment. The technician would be back onsite no later than the second business day along with the ordered parts/equipment and affect the repair by the End of Business that day. The replacement may be a newer version of equipment as older and discontinued parts may not be available or hard to procure. If the replacement part or equipment is not available, the vendor will make the best effort to obtain the part or equipment as quickly as possible. The vendor will provide an estimate on when this part or equipment will be onsite.

c. Minor Problems

- i. Definition: A **Minor Problem** is defined as an incident that hinders the normal operation of UCHD system(s), and does not preclude the system(s) usability, but is a non-normal condition. There are acceptable alternatives or workarounds available to restore partial and/or temporary service until the problem is resolved. (By default, a Minor Problem is any incident that cannot be classified as Critical or Major.)
- ii. Examples: A **Minor Problem** would include partial or total failure of any of the following equipment but is not limited to: Non-functioning LCD display, alarm buzzer.
- iii. Expectations: For **Minor Problems**, an industry qualified technician would be onsite no later than the second business day following the reported incident to diagnose the problem, identify and order the appropriate replacement part/s or equipment. The technician would be back onsite no later than the third business day along with the ordered parts/equipment and affect the repair by the End of Business that day. The replacement may be a newer version of equipment as older and discontinued parts may not be available or hard to procure. If the replacement part or equipment is not available, the vendor will make the best effort to obtain the part or equipment as quickly as possible. The vendor will provide an estimate on when this part or equipment will be onsite.