

Data Center UPS & Battery Room Safety Checklist

Site / Project	_____	Address	_____
Inspector name	_____	Company	_____
Date	_____	Time	_____

Documentation aid only. Adapt this resource to the site, manufacturer instructions, and applicable local requirements. It does not replace a competent person, professional judgment, legal advice, or a required statutory form.

Inspection checklist

Battery & UPS System Integrity

☐	Inspect battery terminals for corrosion. Are terminals clean and free of buildup? (Weekly Visual)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Examine battery cases for cracks, swelling, or other signs of physical damage. Are all batteries free from defects?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Check for any signs of electrolyte leakage (acid) around batteries and connections. Is there any evidence of spills or residue?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify that the battery room ventilation system is operational and unobstructed. Is airflow adequate to prevent hydrogen buildup?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Test hydrogen gas sensors to ensure they are functioning correctly and calibrated. Do sensors trigger alarms at appropriate levels? (Weekly Test)	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Review UPS system event logs for any alarms related to battery health or system faults. Are alarms promptly addressed and documented?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify that the battery monitoring system is active and reporting accurate data (voltage, temperature, impedance). Is data trending within acceptable limits?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Inspect battery inter-cell and terminal connections for tightness and proper torque. Are connections secure and within specified torque values?	☐ Pass	☐ Fail	☐ N/A	Notes: _____

☐	Verify that the battery room temperature is within the recommended operating range. Is temperature control system functioning correctly?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Review battery impedance and conductance readings to assess battery aging. Are any batteries nearing end-of-life?	☐ Pass	☐ Fail	☐ N/A	Notes: _____

Electrical Safety & Arc Flash Prevention

☐	Verify that all breaker panels are clearly labeled with circuit descriptions. Are labels accurate and up-to-date?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Inspect breaker panels for signs of overheating, corrosion, or physical damage. Are breakers in good working order?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Confirm that a current arc flash hazard analysis has been performed and is readily available. Is the analysis less than 3 years old?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify that appropriate arc flash PPE (Personal Protective Equipment) is available and in good condition. Is PPE rated for the potential hazard level?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Ensure that insulated tools are used when working on or near energized equipment. Are tools inspected regularly for damage?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify grounding continuity of all electrical equipment. Is grounding system properly installed and maintained?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Ensure adequate working clearances are maintained around electrical equipment. Are clearances free from obstructions?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Confirm that lockout/tagout procedures are followed when performing maintenance on electrical equipment. Are procedures documented and readily available?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Inspect cable insulation for damage, cracking, or wear. Are cables properly supported and protected?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify the functionality of the emergency shutdown system for the UPS and battery room. Is the system tested regularly?	☐ Pass	☐ Fail	☐ N/A	Notes: _____

Environmental & Safety Equipment

☐	Verify that an eyewash station is readily accessible and functioning correctly. Is the station inspected and maintained regularly?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
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☐	Ensure that a spill kit is available and contains appropriate materials for electrolyte spills. Is the kit properly stocked and accessible?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify that a fire extinguisher (Class C) is readily accessible and inspected regularly. Is the extinguisher properly charged and tagged?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Ensure that a first-aid kit is available and adequately stocked. Is the kit inspected regularly and replenished as needed?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify that appropriate warning signs are posted, including arc flash hazard warnings, battery acid warnings, and no smoking signs. Are signs visible and legible?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Ensure that access to the battery room is restricted to authorized personnel only. Is access control system functioning correctly?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify adequate lighting levels within the battery room. Are lights functioning properly and providing sufficient illumination?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Ensure the battery room is clean, organized, and free from obstructions. Is there any combustible material present?	☐ Pass	☐ Fail	☐ N/A	Notes: _____

Documentation & Training

☐	Verify that Safety Data Sheets (SDS) for battery electrolyte are readily available. Are SDS up-to-date?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Review maintenance records for the UPS and battery system. Is maintenance performed according to schedule?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify that personnel working on the UPS and battery system are adequately trained in electrical safety, arc flash awareness, and battery handling procedures. Are training records current?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Ensure that an emergency response plan is in place for battery-related incidents (e.g., electrolyte spills, thermal runaway). Is the plan readily available and understood by personnel?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Verify that up-to-date single-line diagrams of the UPS system are available. Are diagrams accurate and reflect current configuration?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Confirm that a layout diagram of the battery room is available, showing battery locations, ventilation system, and safety equipment. Is the diagram accurate?	☐ Pass	☐ Fail	☐ N/A	Notes: _____

☐	Verify that a system is in place for reporting incidents and near misses related to the UPS and battery system. Are incidents investigated and corrective actions implemented?	☐ Pass	☐ Fail	☐ N/A	Notes: _____
☐	Review previous inspection reports for the UPS and battery room. Are identified issues being addressed in a timely manner?	☐ Pass	☐ Fail	☐ N/A	Notes: _____

Findings

#	Item	Location	Severity	Action required
1				
2				
3				
4				
5				
6				
7				
8				

Signature

Inspector signature _____

Name _____

Date _____