

Lithium-Ion Battery Charging Cabinet Compliance & Usage Checklist

1. Cabinet Placement & Environment

Location Safety

- Cabinet is installed on a stable, level surface
- Cabinet is located in a dry indoor environment unless specifically rated otherwise
- Cabinet is not blocking exits, aisles, electrical panels, or emergency equipment
- Required working clearances around the cabinet are maintained
- Cabinet is positioned away from excessive heat sources, open flame, or ignition sources
- Area around cabinet is free of combustible storage and trash accumulation
- Ventilation openings are unobstructed

Environmental Conditions

- Ambient temperature remains within manufacturer-recommended operating range
- Cabinet is protected from water intrusion, flooding, and corrosive environments
- Cabinet area has adequate room ventilation

2. Electrical & Power Compliance

Power Supply

- Cabinet is connected to an appropriate dedicated electrical circuit where required
- No unauthorized extension cords or power strips are used
- Cabinet power cord and plug are undamaged
- Grounding connection is intact and verified

Internal Electrical Safety

- Chargers are compatible with the batteries being charged

- No overloaded outlets or daisy-chained adapters are present
- Wiring inside cabinet appears undamaged and properly managed
- Electrical disconnects remain accessible

3. Battery Storage & Charging Practices

Approved Battery Use

- Only approved lithium-ion battery types are stored/charged in the cabinet
- Damaged, swollen, leaking, or recalled batteries are removed immediately
- Batteries showing overheating or unusual odor are isolated and reported
- Batteries are visually inspected before charging when practical

Charging Practices

- Charging is not performed with visibly damaged chargers or cables
- Batteries are not stacked in a manner that restricts airflow
- Shelf weight limits are not exceeded
- Batteries are not stored loosely where terminals may short against metal objects
- Charging areas remain organized and labeled

4. Fire Protection & Emergency Preparedness

Fire Safety

- Appropriate fire extinguishers are accessible nearby
- Staff know emergency response procedures for lithium-ion battery incidents
- Emergency contact information is posted or readily available
- Cabinet labeling and hazard signage remain visible and legible
- Smoke/fire detection systems are operational in the surrounding area where required

Incident Procedures

- Facility has procedures for handling thermal runaway or battery fire incidents
- Staff understand evacuation and isolation procedures
- Defective batteries are quarantined in designated containers/areas
- Incident reporting procedures are documented

5. Inspection & Maintenance

Routine Inspection

- Cabinet exterior is free from major damage or corrosion
- Door latches and locking mechanisms function properly
- Hinges and seals are intact
- Shelving remains secure and undamaged
- Ventilation fans are operational
- Internal outlets and wiring show no signs of overheating

Documentation

- Inspection records are maintained
- Maintenance and repair activities are documented
- Staff training records are current where applicable

6. Operational Controls

Access & Security

- Cabinet access is limited to authorized personnel where appropriate
- Charging responsibilities are assigned to trained staff
- Cabinet is kept closed and secured during normal operation
- Unauthorized modifications have not been made to the cabinet

Administrative Controls

- Facility has written battery charging/storage procedures
- Employees receive periodic safety training
- Recalled batteries/products are tracked and removed promptly
- Battery quantities remain within intended operational limits

7. Recommended Best Practices

- Batteries are labeled by device/application where practical

- End-of-life batteries are segregated from active inventory
- State-of-charge storage recommendations are followed for long-term storage
- Spare batteries are rotated periodically
- Cabinet use is periodically reviewed as battery inventory grows

Applicable Guidance References

This checklist may assist facilities in supporting internal safety programs and alignment with commonly referenced standards and practices, including:

- NFPA 70 (National Electrical Code)
- NFPA 855
- OSHA electrical and workplace safety practices
- Local fire code requirements
- Manufacturer installation instructions
- Insurance carrier recommendations

This checklist is intended as a general operational aid and does not replace formal code review, AHJ approval, or professional safety evaluation.