### **BATTERYIQ**

### LITHIUM-ION BATTERY SAFETY PLAN FOR FACILITIES





### RECOMMENDATIONS AND CONSIDERATIONS FOR FACILITIES

#### **DEVELOP YOUR SAFETY PLAN:**

Use our checklist to assist in the development of a Lithium-ION Safety Plan for your facility to limit the risk of a Li-ION related incident.

Proper preplanning, policies, and training can significantly reduce the risk of Lithium-ION battery-related incidents and keep your facility safe and operational at all times.

Training on all of the below requirements is available for your facility from NOBLE.

NOBLE will also work with your facility to develop a custom Lithium-ION Battery Safety Plan.

#### **CONTACT US TODAY**

We welcome you to contact us for more information.

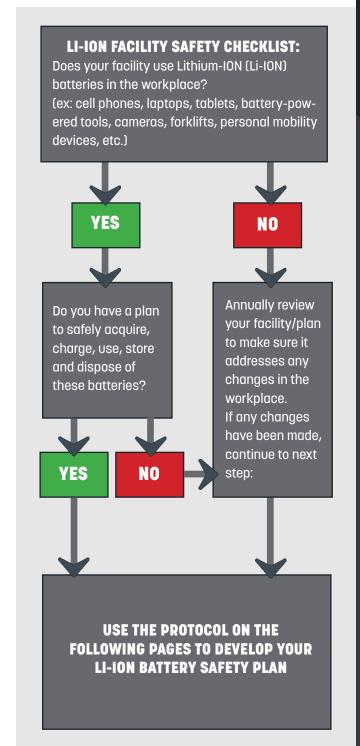
**EMAIL:** training@noble.com

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**WEB:** noble.com/training

Scan QR code to register for BatteryIQ courses on the NOBLE.COM website.





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#### **FACILITY TRAINING**

• Ensure all employees and/or contractors operating within your facility have training on Li-ION batteries, risks associated with these batteries, proper purchasing, charging, use, storage, and disposal as outlined in facility's Li-ION Battery Safety Plan (LIBSP).

#### **PURCHASING**

- Ensure all employees/contractors are trained on the purchasing policies for Lithium-ION batteries.
- All batteries should be purchased from a reputable source and meet appropriate standards.
  - LIBSP should include recommended sources and standards.
- All chargers should be rated for the batteries they will be used on.
  - O Use chargers from the battery/device manufacturer when possible.

#### **CHARGING**

- Ensure all employees/contractors are trained on the charging of Lithium-ION batteries.
- All batteries should be changed in designated charging station/space.
  - These stations should be away from exit paths/enclosed spaces and documented in your LIBSP.
  - o Avoid unattended charging.
  - Do not charge batteries on flammable surfaces and recommend including a charging mat/bag in your LIBSP.
  - Store batteries separate from devices, in approved containers, when possible, in case of battery failure.
- Avoid having large numbers of fully charges batteries in the workspace.
  - o If possible, store extra batteries around 40% charge.
- Make sure chargers are rated for the batteries they charge, to avoid overcharging the battery.
  - o If possible, use chargers from the Battery/Device manufacturer.
- Consider having containment bags, fore blankets, or CellBlock Rapid Deployment Tubes on-site to mitigate battery failures if they occur.

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#### USE

- Ensure all employees/contractors are trained on the use of approved Lithium-ION batteries, and instances where aftermarket batteries may be used.
- Avoid using batteries in high temperature environments (over 150°F)
- Employees should inspect batteries/devices for damage or swelling before use.
  - If any batteries show signs on potential damage, report battery/device to the appropriate person and do not charge or use until the concerns are inspected and addressed.
  - Potentially damaged batteries should be stored in designated containment bag/ location until remedied or properly disposed of.
- Batteries should be used in devices that areappropriate for the application and approved by your facility.

#### **STORAGE**

- Store batteries in approved cabinets/locations away from employees, with good ventilation and away from combustibles.
- Store batteries separate from devices, if possible, in case of battery failure.
- Store spare batteries that do not have to be immediately used at about 40% charge to reduce risk of failure.
- If batteries are transported outside their device, ensure they are protected from damage.
  - o Use a hard case for transport.
  - Protect terminals from shorting.

#### **DISPOSAL**

- Establish and document procedures for disposal of Li-ION batteries.
- This procedure should include:
  - o Full discharging of batteries
  - Covering all contact points with tape
  - Segregate by battery type.
- Li-ION batteries can be stored in metal containers separated with CellBlock for added safety prior to disposal.

#### **OTHER CONSIDERATIONS**

Establish a policy to prevent the storage and/or charging of large battery packs, such
as electric scooters/E-bikes in offices, hallways, exit stairwells, or near fire exits as the
failure of theses batteries can pose considerable risk of damage and block escape
routes.