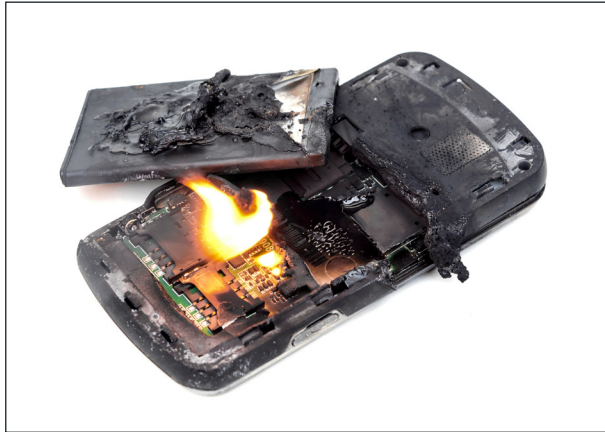


BATTERYIQ

TRAINING COURSE SYLLABUS



Course Length: 8 hours

Overview of Lithium-ION Batteries

- Understanding Lithium-ION Batteries
 - How Lithium-ION batteries work
 - Chemistry of Lithium-ION batteries
- Introduction to Battery Response Guide
- Types of Lithium-ION Batteries

Battery Failures

- Common Causes
- Cascading Failure
- Severity of Battery Failure

Response Tactics & Tools for Common Lithium-ION Battery Incidents

SMALL BATTERY DEVICES

- Indicators - Damaged vs. On Fire
- Incident Case Studies
- Hazards and PPE
- Resource and Response Considerations
- Recommended Products & Equipment

PERSONAL MOBILITY DEVICES

- Indicators - Damaged vs. On Fire
- Incident Case Studies
- Hazards and PPE
- Resource and Response Considerations
- Recommended Products & Equipment

ELECTRIC VEHICLES

- Indicators - Damaged vs. On Fire
- Incident Case Studies
- Hazards and PPE
- Resource and Response Considerations

ELECTRIC VEHICLES (continued)

- Extrication
 - Manual Entry
 - Laminated Safety Glass
 - Review NFPA Response Guide for EV
- Recommended Products & Equipment

ENERGY STORAGE SYSTEMS

- Indicators of Damage
- Incident Case Studies
- Hazards and PPE
- Resource and Response Considerations
- Preplanning with facility

PHOTOVOLTAIC

- Common PV Uses/Locations
- Indicators of Damage
- Hazards/Risks and PPE
- Resource and Response Considerations
- Recommended Products/Equipment

STRUCTURE/COMMERCIAL FIRES

- Discussion of potential hazards
- Resource and Response Considerations

Battery Failure Demonstration

- Physical Damage
- Overcharge
- Use of Equipment in Li-ION Response
 - Thermal Imager/Temperature Gun, pH/Fluorine (F) paper (air monitoring)

Review of Common Battery Packs

Dismantling Battery Packs

Using an assortment of battery packs including tool batteries, e-bike packs, pouch, and cylindrical cells students will disassemble packs for over-packing.

Over-Packing

- Over-packing of batteries used in class
- Determine wattage of batteries packed
- Follow over packing guideline, complete paperwork and prepare the overpack for shipping following DOT regulations for DDR batteries.

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

