



Fire App Incident Reporting for Li-Ion Battery Incidents



Outside Equipment/Battery Device Fires

To document any lithium-ion related equipment/appliance fire or thermal runaway event OUTSIDE of a building where the battery was the cause, utilize the below:

Incident Type: *Select most appropriate. Most common listed below:*

- **(140-143) Brush Fire Types** – *battery is known cause of brush fire*
- **(150-155) Trash Fire Types** – *battery is known cause of trash fire*
- **(160 or 162) Outside Equipment** – *standalone equipment or appliance with nothing else involved*
- **(164) Outside mailbox fire** – *battery device in mailbox ignites or goes into thermal runaway*

Property Tab

- Complete as normal
 - On-Site Materials or Product Codes: *None (unless a significant amount was stored in vehicle)*
 - Acres Burned: *if brush involved enter appropriately*

Ignition Tab

- **Area of Fire Origin:** *Other Area of Origin - Self-explanatory*
- **Heat Source:** *Select most appropriate:*
 - *Spark, ember, or flame from operating equipment (I.e. – battery emitted flame and scorched or ignited vehicle components)*
 - *Radiated, conducted heat from operating equipment (I.e. – battery shows signs of thermal runaway but did not scorch other equipment/materials or structure)*
 - *Electrical arcing – may be appropriate in certain situations that don't meet above*
- **Item First Ignited:** *Select most appropriate. Common battery items are below:*
 - *General Materials Continued*
 - **Multiple items first ignited**
 - *Other Item*
 - **Item first Ignited, Other**
 - *Undetermined*
- **Confined to Object:** *Self-explanatory*
- **Material First Ignited:** *Other Material: Multiple types of material*
- **Cause of Ignition:** *Select most appropriate*
 - *Failure of equipment or heat source: Battery failure and includes mechanical problems*
 - *Intentional: In the event someone uses battery for nefarious purposes*
- **Ignition Factors:** *Select most appropriate:*
 - *Electrical Failure, Malfunction*
 - *Short-circuit arc from mechanical damage*
 - *Unspecified short-circuit arc.*
 - *Operational Deficiency*
 - **Collision**, *knock down, run over, turn over*
 - *Equipment not operated properly*
 - *Operational deficiency, Other*

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- **Human Factors:** *Self-explanatory and enter Age/Gender if applicable*
- **Fire Suppression Factors:** *Significant/unusual fuel load from contents*

Equip & Mobile Tab

- **Equipment Involved in Ignition**
 - **Equipment Involved:** *Electrical Distribution, Lighting & Power: Battery (Includes all battery types)*
 - **Brand:** *Enter if known*
 - **Model:** *Enter if known*
 - **Serial #:** *Enter if known*
 - **Year:** *Enter if known. If unknown, enter 0000*
 - **Equipment Power Source:** *Batteries and low voltage (less than 50 volts).*
 - **Equipment Portability:** Select one
 - *Portable: Includes equipment that can be carried or moved by one or two persons and designed to be used in a variety of locations. Tools are not needed to install or operate the equipment I.e. – phones, laptops, certain appliances*
 - *Stationary: Includes equipment that is mounted at a fixed site or location or designed to be operated in one location. I.e. – Battery Energy Storage Systems (BESS)*

Hazmat Tab – Consult with Hazmat Officer if necessary. Highlighted items are mandatory

- **Release From:** *Select appropriate*
- **Story of release:** *leave blank. Anything inside should be coded as a Building Fire*
- **Only fill out the following items if there was an evacuation.** I.e. – extended EV fire with smoke travel, etc.
 - *Population Density: Self-explanatory*
 - *Area Affected Unit: Self-explanatory*
 - *Total Area Affected: Self-explanatory*
 - *Area Evacuated Unit: Self-explanatory*
 - *Total Area Evacuated: Self-explanatory*
 - *# of People Evacuated: Self-explanatory*
 - *# of Buildings Evacuated: Self-Explanatory*
- **Hazmat Actions Taken:** *Select all appropriate. Below are common items for battery incidents:*
 - **Hazardous Condition**
 - *Identify, analyze hazardous materials*
 - *Hazmat detection, monitoring, sampling, analysis*
 - *Remove hazard or hazardous materials*
 - **Information, Investigation & Enforcement**
 - *Investigate*
 - *Notify other agencies (I.e. – MDE, Tow Company)*

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- Isolation and Evacuation
 - *Isolate area & establish hazard control zones*
 - *Protect-in-place operations*
- **Fire or Explosion** – which occurred first:
 - *Ignition – actual fire*
 - *Release – thermal runaway event with vapor and no fire*
 - *Undetermined – self-explanatory*
- **Cause of Release:** *Container or containment failure*
- **Release Factors:** *select most appropriate. Below are most common:*
 - *Operational Deficiency*
 - *Collision, overturn, knockdown*
 - *Equipment not being operated properly*
 - *Equipment overload*
 - *Mechanical Failure, Malfunction*
 - *Short circuit, ground fault*
 - *Oter electrical failure*
- **Mitigation Factors:** *select most appropriate. Below are most common for EV fires:*
 - *Release Factors*
 - *Combination of release and fire impeded mitigation*
 - *Site Factors – Select ALL appropriate*
 - *Released in residential area*
 - *Released into sewer system – I.e. – fire water runoff into system*
 - *Released into water table – I.e. – fire water runoff onto ground or into body of water*
 - *Released on major roadway – Self-explanatory*
- **Disposition:** *Select most appropriate*
 - *Released to property owner or manager – vehicle left in place and responsible party advised of follow-up actions*
 - *Released to private agency – I.e. – tow truck takes vehicle away*
 - *Released to county agency. I.e. – MCPD handling scene*
 - *Released to state agency – I.e. – MDE remains on scene*
- **Casualties:** *complete as appropriate*

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Material Tab

- Select Add Chemical
- **Chemical Name** (Select one of the following)
 - Lithium-Ion Batteries (any cell, battery pack, appliance, mobility device small than an over the road vehicle)
 - Lithium-Ion Batteries contained in equipment (vehicles such as cars, trucks, etc. or other large equipment)
 - Lithium-Ion Batteries installed in cargo transport (box trailer, etc.)
- **Est Amount Released** – enter 1 as default or unknown (this is a NFIRS required field)
- **Released units** – enter ounces or grams as default.
- All other fields are optional. If you know something enter it.

Equipment & Mobile Tab

- Same info as Ignition tab section if need be

Narrative Tab

- Enter any specifics to the battery- or battery-operated equipment if