



# Fire App Incident Reporting for Li-Ion Battery Incidents



## Battery was the **Cause** of Fire or Experienced Thermal Runaway

	Basic	Owner/Entity	Loss/Casualty	Fire	Structure	Hazmat	Wildland	Weather	Narrative
Exit	Location Main Summary								
Logoff	<b>Basic</b>								
Account	Aid Given/Received								
Activity	Incident Type Building fire								
Reports	Action Taken								
Incident	<b>Dates &amp; Times</b>								
Unit	Incident DateTime 07/25/2024 04:14:27								
Intray	First Arrv Unit 07/25/2024 04:19:18								
Validate	Controlled								
Lock	Clear DateTime 07/25/2024 05:18:55								
Hose Testing	<b>Property Info...</b>								
WOC Activity	Detector Alert								
SDD	Hazmat Release Special HazMat actions requi								
	Property Use								
	Mixed Use								
	# Occupants Displaced								
	<b>Officer In Charge</b>								
	OIC Personnel ID								
	OIC Name								

Hazmat Release		
Search		
Diesel fuel/fuel oil - vehicle fuel tank/ portable	Gasoline - vehicle fuel tank or portable container	House solven spill
Kerosene - fuel-burning equipment/ portable storage	Motor oil - from engine or portable container	Natural no evac actions
None	Paint - spills less than 55 gallons	Propan than a
Special HazMat actions required or spill >= 55 gal		

Any fire inside a structure is coded as the 100 series Building Fire incident type. (Select the most appropriate)

- 111 – Building Fire
- 112 – Fires in structure other than a building (Outside BESS, EV Charging Station, etc.)
- 117 – Commercial compactor fire confined to rubbish
- Others as needed

You must select Special HazMat Actions required so the Hazmat Tab opens for data entry

Complete all other sections on this page as you normally would



# Fire App Incident Reporting for Li-Ion Battery Incidents



## FIRE PAGE – IGNITION TAB

Fire App Interface - Ignition Tab

Navigation: Basic | Owner/Entity | Loss/Casualty | **Fire** | Structure | Hazmat | Wildland | Weather

Sub-tabs: Property | **Ignition** | Equip & Mobile

Left Sidebar: Exit, Logoff, Account, Activity, Reports, Incident, Unit, Intraday, Validate, Lock, Hose Testing, WOC Activity, SDD

**Ignition Section:**

- Area of Fire Origin: [Yellow]
- Heat Source: Spark, ember or flame from c
- Item First Ignited: Appliance housing or casing
- Confined To Object?: No
- Material First Ignited: Multiple types of material
- Cause of Ignition: [Yellow]
- Ignition Factors: [Yellow]
- Human Factors: None
- Age: [White]
- Gender: [White]
- Fire Suppr Factors: Significant/unusual fuel load

**Fire Suppr Factors Table:**

Fire Suppr Factors		
Search		
Act or Omission	Building Construction or Design Factors	D
Egress/Exit	Natural Conditions	On-site
Other Factors	Protective Equipment	

**Fire Suppression Factors Table:**

Cryogenic hazard onsite	Decorations, included are crepe paper, garland	Explosi present
Flammable/combustible liquid hazard	Hazardous chemical, corrosive material, or oxidize	High ra
Liquefied Petroleum (LPG) gas present	Natural or other lighter-than-air gas present	On-site other
Radiological hazard onsite	Significant fuel load from man-made condition.	Significant/unusual fuel load from contents
Significant/unusual fuel load outside from natural	Significant/unusual fuel load structure components	Storage, improper

### Heat Source

- Spark, ember or flame from operating equipment (battery initiated fire)
- Radiated, conducted heat from operating equipment (thermal runaway without ignition)

### Item First Ignited

- Appliance housing or casing

### Material First Ignited

- Multiple types of material

### Ignition Factors

- Electrical failure, malfunction
  - Short-circuit arc from mechanical damage
  - Unspecified short-circuit arc
- Operation Deficiency
  - Collision, knock down, run over, turnover
  - Equipment not operated properly (I.e. overcharged)
  - Operational deficiency, other

### Fire Suppression Factors

- Significant/unusual fuel load from contents



# Fire App Incident Reporting for Li-Ion Battery Incidents



## FIRE PAGE – EQUIPMENT INVOLVED IN IGNITION

**Complete for all Lithium-Ion Battery Incidents**

	Basic	Owner/Entity	Loss/Casualty	Fire	Structure	Hazmat	Wildland	Weather	Narrative
Exit	Property Ignition Equip & Mobile								
Logoff	<b>Equipment Involved in Ignition</b>								
Account	Equipment Involved Battery								
Activity	Brand								
Reports	Model								
	Serial #								
	Year								
Incident	Power Source Batteries and low voltage (<								
Unit	Portability								
Intray	<b>Mobile Property Involved</b>								
	Mobile Involved None								
Validate	Type								
Lock	Make								
	Model								
	Year								
	License Plate								
	State								
Hose Testing	VIN								
WOC Activity									
SDD									

Equipment Involved		
Search		
Commercial & Medical Equipment	Electrical Distribution, Lighting & Power	Electrical Equipment
Garden Tools & Agricultural Equipment	Heating, Ventilation, Air Conditioning	Kitchen Equipment
Other Equipment	Personal & Household Equipment	Shop Equipment

Battery	Battery charger, rectifier	Cord, plug, Other
Decorative lights, line voltage	Decorative or landscape lighting, low voltage	Electric meter, meter box
Electrical branch circuit	Electrical distribution, power transfer, Other	Electrical power (utility) line
Electrical service supply wires from utility	Electrical wiring, Other	Extension cord
Fence, electric	Fluorescent lighting fixture, ballast	Generator

### Equipment Involved

- Electrical Distribution, Lighting & Power
  - Battery

### Power Source

- Batteries and low voltage



# Fire App Incident Reporting for Li-Ion Battery Incidents



## FIRE PAGE – MOBILE PROPERTY INVOLVED IN IGNITION

**COMPLETE IF ELECTRIC VEHICLE, HYBRID VEHICLE OR OTHER TRANSPORTATION DEVICE WAS THE IGNITION SOURCE (I.e. E-Scooter/Bike)**

	Basic	Owner/Entity	Loss/Casualty	Fire	Structure	Hazmat	Wildland	Weather
Exit	Property Ignition Equip & Mobile							
Logoff	<b>Equipment Involved in Ignition</b>							
Account	Equipment Involved		None					
Activity	Brand							
Reports	Model							
Incident	Serial #							
Unit	Year							
Intray	Power Source							
Validate	Portability							
Lock	<b>Mobile Property Involved</b>							
	Mobile Involved		Involved in ignition and burn					
	Type		Automobile, passenger car, a					
	Make		Ford					
	Model		Electric F150 Lightning					
	Year							
	License Plate		ABC123					
	State		Maryland					
	<b>Type</b>							
	Search Full Menu							
	Air transport vehicles		Freight Road Vehicles		Industrial, agricultural, construction vehicles			
	Mobile Property, Miscellaneous & Other		<b>Passenger Road Vehicles</b>		Rail Transport Vehicles			
	Water Vessels							
	Automobile, passenger car, ambulance, race car		Bus, school bus, trackless trolley		Mobile home			
	Motor home, camper,		Motorcycle, trail bike		Off-road recreational			

### Mobile Involved

- Passenger Road Vehicles
  - Automobile, passenger car
  - Bus, school bus, trackless trolley
  - Motorcycle, trail bike
  - Off-road recreational vehicle – I.e. – Ebike, E-scooter, etc.
  - Passenger road vehicle, Other
- Freight Road Vehicles
  - Garbage, waste, refuse truck
  - General use truck, dump truck, fire apparatus
  - Hauling rig, pickup truck
  - Trailer-semi, designed for freight I.e. – EV tractor trailer and BESS trailer
- Mobile Property, Miscellaneous & Other
  - Home, garden vehicle
  - Shipping container, mechanically moved I.e. – BESS container

### Model

- Type Electric or Hybrid prior to the actual model name (I.e. Electric Model 3, Hybrid Leaf, etc.)



# Fire App Incident Reporting for Li-Ion Battery Incidents



## HAZMAT PAGE – SCENE TAB

	Basic	Owner/Entity	Loss/Casualty	Fire	Structure	Hazmat	Wildland	Weather	
Exit	Scene		Material	Equip & Mobile	Narrative				
Logoff	Release From		Inside or On Structure						
Account	Story Of Release		1						
			<input type="checkbox"/> Below Grade						
Activity	Population Density								
Reports	Area Affected Unit								
	Total Area Affected								
Incident	Area Evacuated Unit								
	Total Area Evacuated								
Unit	# of People Evacuated								
Intray	#-Buildings Evacuated								
Validate	Hazmat Actions Taken		Identify, analyze hazardous materials Remove hazard or hazardous materials						
			< >						
Lock	Fire or Explosion - which occurred first		Ignition						
	Cause of Release		Container or containment failure						
Hose Testing	Release Factors		Factors contributing to release						
			< >						
		Mitigation Factors		Released in occupied building					

### Hazmat Actions Taken

Search Full Menu

<b>Hazardous Condition</b>	Information, Investigation & Enforcement	Isolation and Evacuation
Other HazMat Actions		

Decontaminate persons or equipment	HazMat detection, monitoring, sampling, & analysis	HazMat leak control and containment
HazMat spill control and confinement	Identify, analyze hazardous materials	Remove hazard or hazardous materials

### Release From

- Inside or on structure

### Hazmat Actions Taken – select all of these as necessary

- Hazardous Condition
  - Identify, analyze hazardous materials
  - Remove hazard or hazardous materials
- Information, Investigation & Enforcement
  - Investigate
  - Notify other agencies (I.e. – MDE)
- 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

### Cause of Release

- Container or containment failure

### Release Factors

- Operational deficiency
  - Collision, overturn, knockdown
  - Equipment not being operated properly
  - Equipment overload
- Mechanical failure, malfunction
  - Short-circuit, ground fault
  - Other electrical failure

### Mitigation Factors – select most appropriate

- Release factors
  - Combination of release and fire impeded mitigation (use if trouble extinguishing)

### Disposition

- Released to property owner or manager
- Released to private agency (Tow truck, Clean-up contractor)
- Released to county agency (MCPD, FEI)
- Released to state agency (MDE)





# Fire App Incident Reporting for Li-Ion Battery Incidents



## HAZMAT PAGE – MATERIAL TAB, EQUIP & MOBILE TAB, NARRATIVE TAB

	Basic	Owner/Entity	Loss/Casualty	Fire	Structure	Hazmat	Wildland	Weather
Exit	Scene							
Logoff	Material							
Account	Equip & Mobile							
Activity	Narrative							
Reports								
Incident								
Unit								
Intray								
Validate								
Lock								
Hose Testing								
WOC Activity								
SDD								

  

Chemical Name	Lithium-ion batteries
Chemical #	MC00000
CAS Registration #	
UN Number	3480
DOT Hazard Class	
Container Type	
Container Capacity	
Capacity Units	
Est. Amount Release	1
Released Units	Ounces (liquid)
Physical State When Released	Undetermined
Release Into	Air
<b>NEW</b> <b>BACK</b>	

  

Chemical Name	
Search	
A	B
C	D
E	F
G	H
I	J
K	L
M	N
O	P
Q	R
S	T
U	V
W	X
Y	Z

  

Liquefied natural gas 0251000	Liquefied petroleum gas 0252000	Liquid chlorine 0087001
Liquid oxygen 0315003	Litharge 1222000	Lithium 0253000
Lithium aluminum hydride 1223000	Lithium bichromate 1224000	Lithium borohydride 1225000
Lithium chromate 1226000	Lithium hydride 1227000	Lithium metal 0253002
Lithium-ion batteries MC00000	Lithium-ion batteries contained in equipment	Lithium-ion batteries installed in cargo transport
LNG 0251001	Lorsban 0105002	LOX 0315004
LPG 0252002	Luprisol 0345002	Lye 0359004

### Must Complete Following Sections

- Chemical Name
- Est. Amount Release
- Released Units

Complete other sections if known

### Chemical Name

- Lithium-ion batteries (any cell, battery pack, appliance, mobility device smaller than an over the road vehicle)
- Lithium-ion batteries contained in equipment (Battery energy storage systems (BESS), vehicles or other large equipment)
- Lithium-ion batteries installed in cargo transport (box trailer, etc)

### Est Amount Release

- Required entry
- 1 Ounce or 1 Gram will suffice

**\*\*If you know how many cells were involved, (1) 18650 cell equals approximately 4 grams of electrolyte. I.e. – 9 cells = 36 grams\*\***

**Complete Equipment and Mobile Property Tab with same information as in the Fire Page for same selections**

**Complete Narrative Tab with any specifics to equipment and actions taken by Hazmat (I.e. – battery isolated in bathtub, Hazmat overpack with 5-gal pail, awaited contractor, etc)**