



Electric Vehicle Fire Response Guide



FOR EMERGENCIES INVOLVING ELECTRIC VEHICLE FIRES

WHAT KIND OF CAR IS ON FIRE?

- Standard ICE- combustion engine and lead acid battery
- HEV- hybrid electric- combustion engine and lithium-ion batteries
- EV- Electric vehicle- lithium-ion batteries or hydrogen fuel cell

FIRE CONSIDERATIONS:

- **AS WITH ALL VEHICLE FIRES TURN OUT GEAR AND SCBA IS REQUIRED FOR FIREFIGHTING OPERATIONS**
- Protect exposures
- Determine if thermal runaway is occurring with the batteries due to the fire. If so letting the car burn may be an option
- If you must fight the fire:
 - Establish a sustained water supply
 - Cool battery enclosure
 - Use hand line or unmanned monitors- 125gpm or more
 - Extended cooling may be necessary
 - Fire blanket may be used to contain event- cover the car completely and leave one corner open to allow accumulated gas to escape
 - Firefighters should go through a gross decontamination prior to leaving the scene

MONITOR WITH A TIC

- If temperature is stable (45mins.) or trending down fire is under control
- Thermal runaway may still occur for a significant time after initial event
- Even after a fire EV batteries may have high voltage present

TRANSPORT:

- Tow operator should load damaged vehicle being careful not to cause tire rotation (Flatbed tow truck)
- Covering the vehicle during transport with a fire blanket is an option. (Allow gas to vent)
- Escort tow truck with class A engine in case of fire during transport
- Store damaged vehicle away from buildings and other combustible materials or in an approved enclosure

FOR IMMEDIATE ASSISTANCE, CONTACT OFPC AT 518-292-2200
Please report any EV events to batteryemergencies@dhses.ny.gov