



## STATE FIRE MARSHAL'S OFFICE REISSUES WARNING, GUIDANCE ON ALTERNATIVE FUEL VEHICLE HAZARD IN THE WAKE OF IAN

**Oct. 14, 2022-** The Florida State Fire Marshal's Office (SFM) is once again warning residents and first responders about an alarming fire hazard with hybrid, electric, and fuel cell vehicles developing in the wake of Hurricane Ian after new information about this dangerous trend is coming to light.

Though it has been more than two weeks since Hurricane Ian, fire departments in affected areas continue to experience vehicle fires that appear to be caused by battery and voltage component corrosion in these types of vehicles after they've been submerged in water.

Following a letter to the National Highway Traffic Safety Administration, Florida's Chief Financial Officer (CFO) Jimmy Patronis has received confirmation that test results specific to saltwater submersion show that salt bridges can form within these battery packs and provide a path for short circuit and self-heating. This can lead to fire ignition. And it's happening still now, several weeks after battery damage initially occurred.

Additional new information centers around vehicles utilizing lithium-ion batteries. A lithium-ion battery is a source of energy in everyday items including electric vehicles, golf carts, E-bikes, laptops, and battery-powered tools.

With that new information, the SFM is updating the original guidance issued that included direction from the National Fire Protection Association (NFPA).

Here are the most up-to-date recommendations for alternative fuel vehicle owners and first responders in *italics*.

If you're a vehicle owner, and your alternative fuel vehicle was flooded during Hurricane Ian:

- Leave all windows and/or doors open to allow any potentially flammable gases to vent from the passenger compartment.
- If the vehicle is being stored indoors, and can be moved, *move it at least 50 feet away from structures, vehicles, or combustibles especially if they utilize lithium-ion batteries*. If it cannot be moved, try to keep the storage area open and vented.
- Do not remove service disconnects.
- Disable the vehicle by chocking the wheels, placing the gearshift in park and removing the ignition key and/or disconnecting the 12V battery.
- Avoid contact with the HV battery especially if a vehicle is showing signs of a damaged or overheating HV battery. *If the battery heats up and emits a smell, gas or smoke, keep people away from the battery and immediately call 911.*

If you're a first responder and you encounter a still-flooded alternative fuel vehicle:

- Be aware the vehicles are designed to NOT pose a shock hazard nor energize the water, *but always assume the battery and associated components are energized and fully charged.*
- Avoid contact with components, cables and service disconnects.
- Ensure the ignition is in the off position. If it cannot be turned off, disengage until it is no longer flooded.

If you're a first responder and you encounter an alternative fuel vehicle that you believe has been submerged, you should don full firefighting personal protective equipment (PPE) and SCBA and follow the tips listed above.

Stay safe, Florida!