

IAFF SAFETY ADVISORY

USE OF FIRE BLANKETS ON ELECTRIC VEHICLE FIRES

JUNE 2025



The IAFF recommends members do not use fire blankets on EV fires involving the battery.

Electric vehicle (EV) fires have presented unique suppression challenges to the fire service. Anecdotal information describes these fires as burning hotter and for longer periods than gasoline-powered cars, with an additional threat of reignition that can last for months.

In response to these challenges, numerous products claim to improve suppression efforts involving EVs. Many of these claims have not been substantiated through independent scientific testing. Appropriate product standards have not yet been updated to address these products, and in some cases, new standards have yet to be proposed or developed.

Two major research initiatives, UL Fire Safety Research Institute (FSRI) and the NFPA Fire Protection Foundation (FPRF), are conducting experiments that simulate fire department responses to EV fires and evaluate the effectiveness of various suppression tactics and products. The IAFF is actively involved in both projects.



While it will take time for the researchers to develop the final reports, we have learned critical information that needs to be shared immediately before the final publications of these reports.

- The IAFF strongly urges fire service members NOT to deploy a fire blanket for suppression efforts when responding to an EV fire.
 - This recommendation is based on the experiences resulting from both projects and shared in this [joint statement](#) issued on May 30, 2025.
 - While deploying a blanket can control a fire by eliminating oxygen – a smothering effect – it does not stop the battery from experiencing thermal runaway and releasing flammable gases, including hydrogen. Although eliminating oxygen may stop flaming, the ongoing release of flammable gases can build up beneath a fire blanket and create an explosion hazard.
 - Determining if the EV's battery is involved is a multi-step process, but it must begin with life safety of the driver, occupants, and responders as the top priority.
 - When encountering a fire involving an EV, fire fighters should use water to initially knock down the body of fire and then assess for battery involvement. Indicators include persistent flaming from the wheel wells and from underneath the vehicle that resist hose stream extinguishment, jetting flames accompanied by hissing and popping sounds, and reignition. Refer to the IAFF Energy Hazard Guide for additional information.

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- Parking garages and other confined environments further increase the risk of flash fires and deflagrations if flammable gases escape from under or through the blanket and accumulate.

The IAFF has been involved in battery research for 10 years and has developed the following conclusions:

- The IAFF has not been presented with any full-scale testing by independent researchers that demonstrates that any available product improves the performance of water when responding to battery fires.
- The IAFF has not been presented with any full-scale testing by an independent researcher that demonstrates the effective use of available products to reduce the risk of exposure to carcinogens when responding to an EV or any fire.
- The IAFF recommends the application of water to open flaming in response to EV fires. See the IAFF Energy Hazard Guide.

These recommendations will remain in place until industry standards are developed to certify the use of fire blankets and demonstrate their safe deployment at an EV fire or upon validation that the use of fire blankets during EV fires is effective and safe through full-scale, verified independent research.