

The Evolving Threat Landscape

Needs for Modernization of HAZWOPER

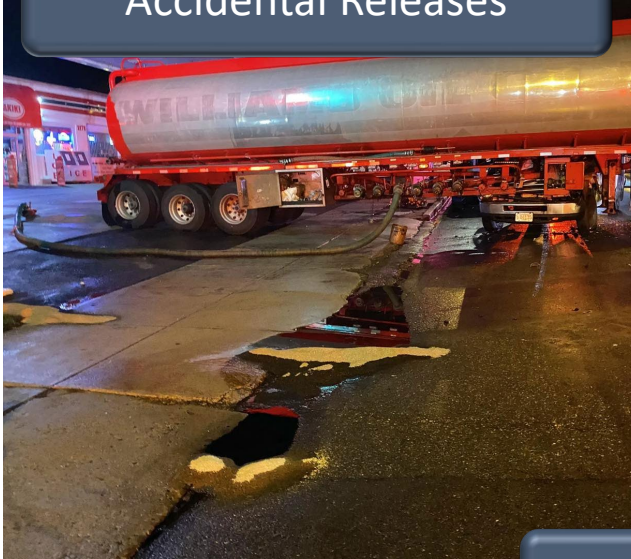
20 October 2022

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Practical
Evidence Based Solutions
for **Emergency Response**

Competing Challenges

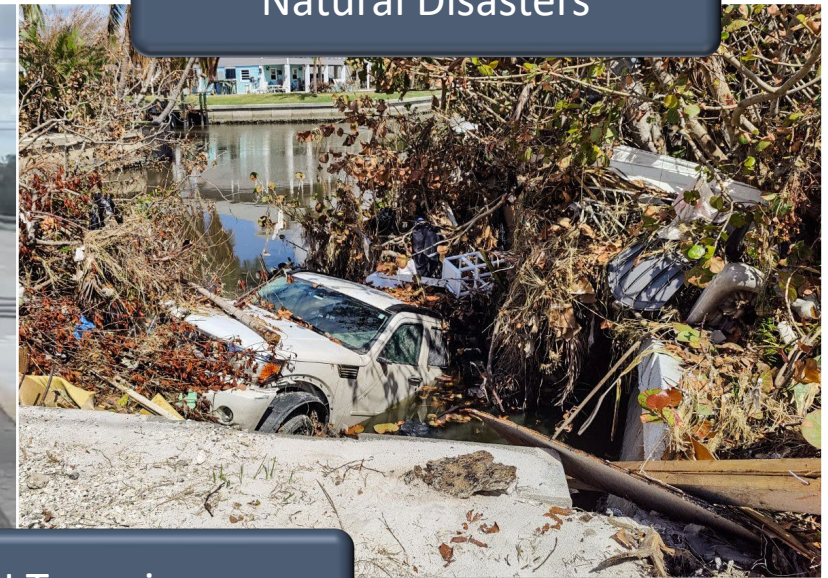
Accidental Releases



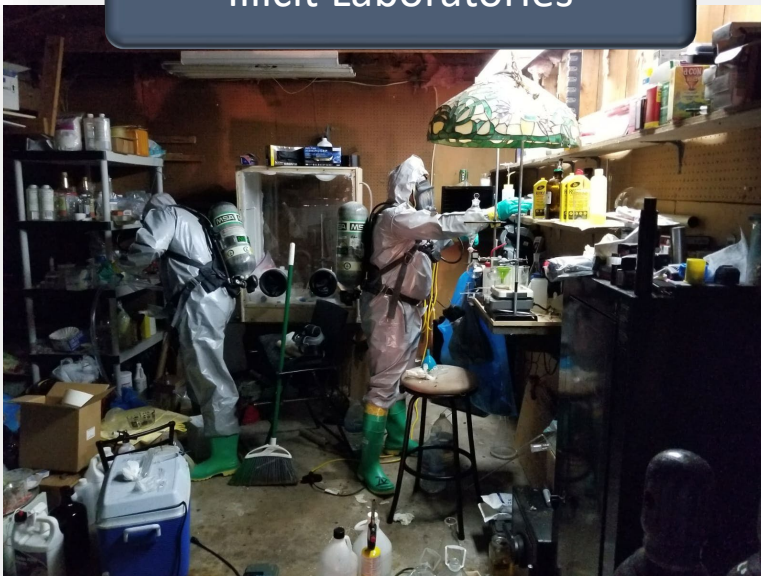
New Technologies



Natural Disasters



Illicit Laboratories



CBRN Terrorism



Accidental Releases

Transportation Incidents



Garbage Truck Fires



Facility Releases



Product Transfer Incidents



University Laboratories



Pool Chemical Accidents



Natural Disasters & Climate Change

Hurricane Harvey (AUG 2017)
Crosby, TX



Photo credits: U.S. Chemical Safety and Hazard Investigation Board

Hurricane Ian (SEP 2022)
Ft. Myers Beach, FL



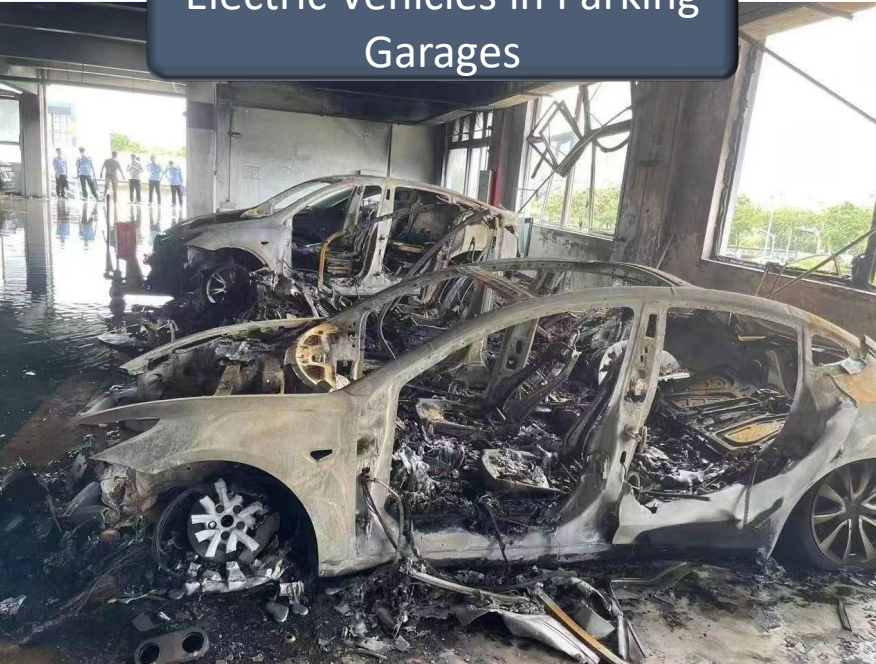
Photo credits: Rich Gatani, Southern Manatee Fire & Rescue

Battery Emergencies

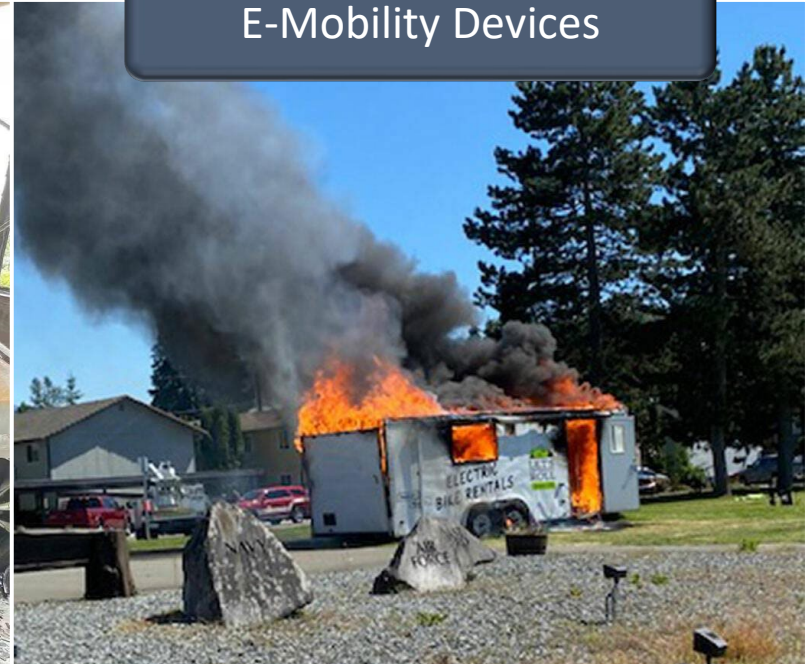
Electric Vehicles in Natural Disasters (Storm Surge)



Electric Vehicles in Parking Garages



E-Mobility Devices



Energy Storage Systems



Lead Acid Batteries

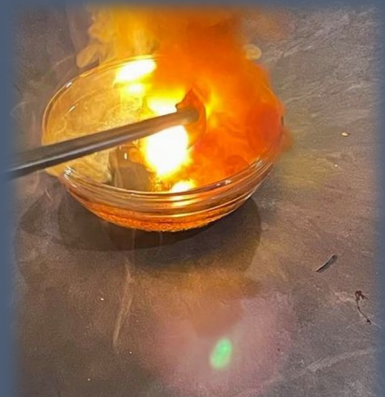


Illicit Laboratories

Chemical Warfare Agents



Toxic Industrial Chemicals



Illicit Drugs



Homemade Explosives



Biological Warfare Agents





Considerations

- Law vs. Regulation vs. Best Practice
 - HAZWOPER
 - NFPA 470 (NFPA 472/1072)
- Specific training topics
 - Emergency response and facility location issues
 - Situational awareness
 - Broad spectrum threats
 - “Other Duties as Assigned”
 - Incorporate everyday hazards

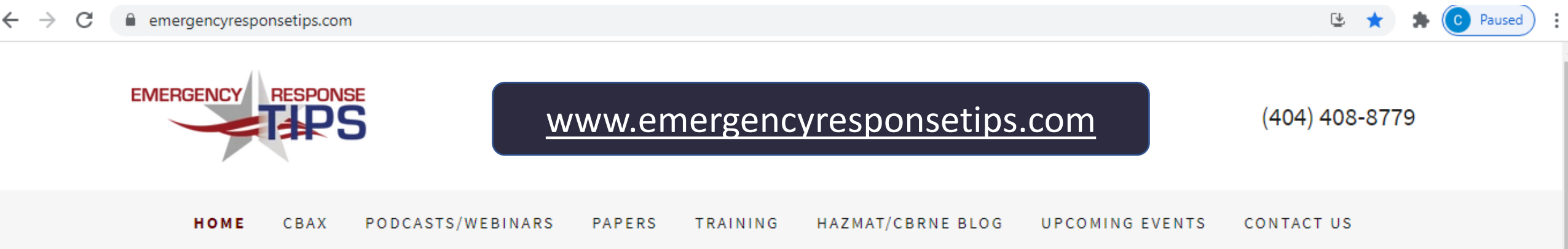
Thank you!

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A screenshot of a web browser displaying the website emergencyresponsetips.com. The browser's address bar shows the URL. The website header features the logo for Emergency Response TIPS, which includes a stylized star and the text "EMERGENCY RESPONSE TIPS". To the right of the logo, the website URL www.emergencyresponsetips.com is displayed in a dark blue rounded rectangle, and the phone number (404) 408-8779 is shown to its right. Below the header is a navigation menu with the following items: HOME, CBAX, PODCASTS/WEBINARS, PAPERS, TRAINING, HAZMAT/CBRNE BLOG, UPCOMING EVENTS, and CONTACT US.



A screenshot of a web browser displaying the website hazard3.com. The browser's address bar shows the URL. The website features the Hazard3 logo, which is the word "Hazard3" in a blue serif font. Below the logo is a navigation menu with the following items: HOME, TRADITIONAL COURSES, MICROLEARNING, ERDSS, UPCOMING EVENTS, and CONTACT US.