

	Terryville Fire Department Best Practices	
	<u>Subject</u> Vehicle Fires	BP# 3-07
	<u>Authority</u> Chief of Department	Initiated 9/1/2016 Revised

A. PURPOSE

1. These best practices have been established to ensure the proper response and safety of our members when dispatched to vehicle fires.

B. GENERAL GUIDELINES / CONSIDERATIONS

1. All members shall comply with the Respiratory Standards (BP# 1-06) along with all other safety related best practices.
2. Reflective safety vests should only be worn by support personnel (traffic, EMS, etc.) and not by personnel working around the vehicle.

B. OPERATIONAL PROCEDURES

1. Apparatus Placement
 - a. To afford protection from hazardous liquids and vapors and to reduce smoke in the work area, apparatus should be placed upwind and uphill of the incident when possible.
 - b. Consideration must be given to using an apparatus as a barrier to shield the incident scene and the pump operator from traffic hazards.
 - c. Warning lights should be left on, in conjunction with the use of traffic cones or flares when needed.
 - d. Cones and flares can be used to direct traffic flow and warn motorists of hazards. Caution must be used to ensure flares are placed so they will not cause an additional fire or present a burn injury/hazard.
 - e. Additional apparatus or Fire Police may be used as a safety barrier for the 1st due engine.

2. Water Supply

- a. Water of sufficient quantity, flow rate, and pressure should be used to meet suppression objectives and ensure firefighter safety.
- b. The type hose line used will normally be decided by the engine officer based on the size-up information provided by the Incident Commander.

3. Fire Attack

- a. A free burning stage fire involving the interior of the vehicle passenger compartment can quickly damage the vehicle beyond repair. As such, the attack plan should consider the vehicle as not salvageable (unless there are victims trapped within) and a safe and appropriate approach and fire attack will be implemented.
- b. When occupants are trapped within the vehicle, water or other extinguishing agent should first be applied to protect the occupants and rescuers.
- c. When extinguishing a vehicle fire, crews should approach from a 45° angle towards the side of the vehicle. This will reduce the potential for exploding energy absorbing bumpers or hold open devices.
- d. When rescue is not a factor, consider applying water to hazard areas first (fuel tanks, shock absorbing bumpers, tires, etc.)
- e. When possible, a chock block should be placed around one of the tires to prevent the burning vehicle from rolling or lurching forward due to topography, burned brake lines, etc.

4. Hazard & Safety Considerations

- a. Liquid Petroleum Gas (LPG) and Liquid Natural Gas (LNG): If there is flame impingement on a LPG/LNG storage tank, take action to control the fire and cool the tank to prevent a BLEVE. If vapors escaping from the storage tank relief valve have ignited, allow the LPG/LNG to burn while protecting exposures and cooling the tank. Be aware of alternative fuel leaks, as these may not be visible. Personnel should keep a distance of 500' from the sides and 1000' from the ends of the storage tank.
- b. Energy Absorbing Bumpers and Hold Open Devices: When heated, bumpers and hold open devices may develop high pressure sufficient to cause a violent release of the bumper assembly and/or hold open cylinders.
- c. Batteries: Flammable hydrogen vapors may cause an explosion hazard. Contact with battery acid should be avoided.
- d. Combustible Metals: large quantities of water will cool combustible metals below its ignition temperature. Dry chemical extinguishers can also be effective on combustible metals. Special consideration should be given to magnesium, which can burn and will react violently with water. Attack the fire, initially from a distance, using the full reach of the stream.

- e. Interior: Well sealed interiors of modern vehicles present the potential for backdrafts.
- f. Vehicle Stability: Tires or split rims exposed to fire may explode, releasing projectiles and causing the vehicle to drop suddenly.
- g. Airbags: To avoid injury, firefighters should follow the 5-10-20 rule, keeping in mind that airbags can deploy even after the key has been removed and battery disconnected. For airbags that have yet to deploy:
 - i. Maintain a minimum of 5 inches from side impact airbags
 - ii. Maintain a minimum of 10 inches from driver side frontal airbags
 - iii. Maintain a minimum of 20 inches from passenger side frontal airbags
- h. Environmental Considerations: Every effort should be made to prevent spills and runoff that may be hazardous to the environment by damming and/or using absorbent material.
- i. Crews should always check the trunk of a vehicle fire to determine if the contents within are hazardous.

C. POST EMERGENCY OPERATIONS

1. The Incident Commander should document as much information about the vehicle (registration plate number, VIN, make & model) as well as owner information. This information should be forwarded to the dispatcher for the NFIRS report.
2. Consider notification to Town of Brookhaven Fire Marshal for instances where the origin of fire is unknown or suspicious in nature.