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|  | FLINT HILL FIRE DEPARTMENT**STANDARD OPERATING GUIDELINE** |

**Guideline Number:**  410.02

**Guideline Title:** Motor Vehicle Extrication

**Adopted:** 8/8/2023

**Rescinds:** New

**Approved By: (Chief)**

1. **PURPOSE:**

To define consistent guidelines and responsibilities for firefighters to safely, efficiently and effectively control incidents involving motor vehicle extrications.

1. **DISCUSSION:**

Motor vehicle extrication assignments can result from a wide variety of vehicle accidents. These can range from single-vehicle rollovers to multi-vehicle accidents with significant damage resulting in patient entrapment. This run type can also include individuals pinned under vehicles. Further complicating this response is the likelihood that the involved vehicles’ electrical, airbag, and/or fuel systems will be compromised.

Survivability of patients with life threating traumatic injuries is time dependent, necessitating rapid extrication. Once extrication tools are deployed on a vehicle, it must be assumed a total loss for insurance purposes. No attempt should be made to “preserve” tires, seatbelts, etc. Aggressive actions should be taken to make the vehicle as safe as possible for EMS, patients, and the fire department.

1. **GUIDELINE:**

The following guideline is in the recommended order of implementation, reflecting the

relative priorities on motor vehicle accidents with entrapment.

1. The appropriate apparatus should respond to the location quickly with due regard for the safety of others. (Refer to SOG 400.04 APPARATUS RESPONSE).
2. All personnel must don proper Personal Protective Equipment (PPE). Minimum PPE for all firefighters working in the hazard zone should be full turnout gear. Other personnel on the scene should wear appropriate PPE for their assignment, a minimum of a traffic vest and helmet. (Refer to GENERAL POLICY 203.03 PERSONAL PROTECTIVE EQUIPMENT).

1. Upon arriving at the scene of a vehicle accident with an entrapment, the Company Officer should determine the best placement for the responding apparatus to ensure the safety and protection of all personnel operating at the scene. (SOG 410.01 MOTOR VEHICLE ACCIDENT).
2. The company officer may give a scene size up and establish Incident Command (IC) (SOG 402.01 INCIDENT COMMAND).
3. The IC should evaluate the following:
	1. The number of vehicles involved.
	2. Number of patients injured or entrapped.
	3. Types of vehicles involved, car, truck, commercial vehicle, hybrid vehicle, etc.
	4. If fire is present, (refer to SOG 410.11 VEHICLE FIRES).
	5. Leaking fuel causing a potential fire or explosion hazard.
	6. Stabilization of the vehicles. This includes preventing a vehicle from rolling down hills.
	7. The presence of vehicle safety systems, such as air bags and have they been deployed.
	8. Involvement of electrical powerlines or other electrocution hazards.
	9. Involvement of any actual or suspected hazardous materials (SOG 410.08 HAZARDOUS MATERIALS).
4. IC should survey the scene for possible hazards. If a utility hazard exists, the IC may contact FireCom and have the right utility company respond to the scene.
5. In the event of a large-scale incident where Flint Hill Fire Department resources cannot meet the incident’s response demands, the IC has authority to request additional resources at his/her discretion. This includes mutual aid requests.
6. A Safety Officer may be assigned to supervise the operation, which includes the safety of the extrication, the scene, and awareness of approaching vehicles. If no Safety Officer has been assigned, The IC should fill the role.
7. Control traffic at the scene. Have FireCom dispatch York County Sheriff or South Carolina Highway Patrol to assist with traffic control. (Refer to SOG 402.07 TRAFFIC CONTROL)
8. All ignition sources should be eliminated from the area.
	1. Once the windows have been rolled down, doors unlocked, and seats moved back, all batteries should be disconnected.
9. A tarp may be laid on the ground to establish a tool resource staging area.
10. Extrication can only begin after the following has been met:
	1. Vehicle has been stabilized.
	2. Battery has been disconnected after all windows have been rolled down, doors unlocked, and seats moved back.
	3. The patient is covered with a tarp or extrication blanket. The use of a backboard to provide hard protection for the patient should be considered.
	4. All glass has been removed from the vehicle.
	5. 1 ¾” hose line has been deployed and charged.
	6. All personnel in the extrication zone (Fire and EMS) have been briefed on the actions being taken.
11. Victim assessment should be performed by fire department personnel, fully outfitted in turnout gear. If EMS personnel are available, they may perform victim assessment if appropriate protective equipment is provided.
12. Care should be taken when removing a patent from a vehicle. Protect patient from sharp edges.
13. If requested, establish a landing zone. This may be assigned to a mutual aid fire department (SOG 410.03 LANDING ZONE).

**Strategic Considerations**

1. An extrication zone should be established. Access to this zone should be limited to only those involved in the extrication process.

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**Tactical Considerations**

1. A primary objective for the emergency responder at a hybrid incident will be to shut the vehicle OFF, this provides the following:
	1. Shuts down the hybrid system.
	2. Shuts down the fuel pump.
	3. Stops electrical flow to the supplemental **restraint system** (SRS) and airbag electronic crash unit (ECU).
	4. Isolates the high voltage (HV) from the HV pack.
2. It should be noted that the hybrid system will have high voltage capacitors that can store a high voltage current for 10 minutes or longer, even after the vehicle is shut down/off. Always consider a high voltage cable to be live/hot.
3. Stabilization of vehicle on wheels:
	1. Chock the front wheels and rear wheels
	2. Remove air from tires and allow vehicle to settle on chocks
4. Stabilization of vehicle on side:
	1. Chock under B and C posts on roof side of vehicle
	2. Chock under front rocker panel and rear trunk area
	3. Deploy stabilization struts as necessary
5. Stabilization of Vehicle on roof:
	1. Chock where hood meets ground
	2. Chock where roof meets ground
	3. Deploy stabilization struts as necessary