



**MONTGOMERY COUNTY
FIRE AND RESCUE SERVICE**

24-01

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**Incident Response Policy Appendix P
Vehicle Collisions**

01/02/18

Issued by: Fire Chief Scott E. Goldstein

Policy Number: 24-01

Authority: Montgomery County Code Section 21-3 (b)

Supersedes: Policy and Procedure 24-04, *Vehicle Accident Response Policy*, April 1, 1995. FCGO 16-01, *Rescue Squad/Rescue Truck or Engine Dispatch Pilot Program*, January 19, 2016.

Effective Date: February 4, 2018

SECTION 1. Purpose:

To establish standard operating procedures for Montgomery County Fire and Rescue Service (MCFRS) personnel to use during vehicle collision incidents.

SECTION 2. Applicability:

This policy applies to all MCFRS personnel.

SECTION 3. Background:

Vehicle collision incidents are high risk operations, particularly on limited access highways. Factors that increase risk include: moving traffic, inattentive drivers, the inability to preplan a worksite, and changes in vehicle and tool technology. This policy was developed to update the guidance and requirements needed to safely manage these changes.

SECTION 4. Definitions:

See Appendix Q.

SECTION 5. Policy:

Vehicle collisions that require emergency medical treatment, extrication, hazard control, and transport of patients must be executed in a coordinated fashion. This Appendix provides a framework to establish basic responsibilities and expectations until incident-specific instructions are given.



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MCFRS operates several platforms with rescue tool systems which are individually capable of handling many collisions: Rescue Squads, Rescue Trucks, and Rescue Engines. In cases where more than one platform is dispatched to an incident, the goal is to position apparatus so that both units can deploy their tools and equipment as needed.

Operations on roads and highways are some of the most dangerous work that Fire and Rescue personnel perform; risk assessments must be given the same attention as those of structure fires. The safety and protection of first responders and the public is paramount when making decisions or taking actions during roadway incidents.

Except in the most extreme situations, personnel should not be operating without the protection of a Blocking Unit if they are exposed to moving traffic.

Apparatus positioning is the one of the most important factors in maintaining safety. In order, the priorities for positioning are:

- a. Establishing traffic blocking for the protection of responders and patients
- b. Efficient operations and access for specialty units
- c. Protection for patient loading into EMS transport units
- d. Efficient egress for EMS transport units

SECTION 6. Responsibility:

All personnel are responsible for understanding their roles and having competence in their assignments.

Unit officers are responsible for safe positioning of apparatus, providing a safe work zone for their personnel, understanding incident priorities and implementing tactics that address those priorities.

Incident Commanders are responsible for the overall outcomes of incidents and for the safety of personnel and the public.

SECTION 7. Procedure:

- a. Initial Actions on Arrival
 1. Position for blocking and establish a Protected Work Zone. The first arriving unit(s) should position to provide the best protection possible, even if that unit is a light duty vehicle or transport unit. As heavier units arrive, the first units can reposition inside the Protected Work Zone if necessary.



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2. All personnel should don traffic safety vests before exiting apparatus and must be wearing their traffic safety vests before engaging in incident activity. Additionally, personnel assigned to engines, rescue squads, or rescue trucks should exit the apparatus wearing full PPE with the expectation of a working incident. Personnel assigned to fire suppression or extinguishment tasks should not wear traffic safety vests.
3. Provide direction or information to responding units to establish or expand the Protected Work Zone.
4. Ensure that adequate resources are responding to provide blocking, patient care, and extrication.
5. Establish and define the Inner Circle and Outer Circle.
6. Complete an Inner Circle Check for each vehicle including:
 - A. Assess the number of potential patients in or near the vehicles, life-threatening injuries, and any Trapped or Pinned patients.
 - B. Turn off ignition and remove key. For vehicles with keyless ignition, keyfobs should be moved at least 15' from the vehicle.
 - C. Place transmission in "park" (or in gear if a manual transmission) and set parking brake. Consider "chocking" wheels to prevent the vehicle from rolling.
 - D. Identify battery powered or hybrid vehicles and notify all personnel if found or suspected.
 - E. Assess need for Stabilization if injured occupants are inside the vehicle or if Extrication is suspected.
 - F. If accessible, disconnect all 12 Volt (12V) batteries for combustion engine vehicles to minimize the chance of an airbag deployment.
 - G. If high voltage (drivetrain power) power cut-off switches are found, and rescuers are familiar with the proper procedure to remove power, the power may be turned off.
 - H. High voltage cables should NEVER be cut. All orange colored cable/wiring in hybrid/electric vehicles should be considered high voltage.
 - I. Assess airbag locations and note non-deployed airbags. Non-deployed airbags should be avoided as much as possible; some two-stage airbags can re-deploy and should be avoided. Personnel should take all necessary steps to not place themselves or the patient in the deployment path of airbags.
7. Perform Outer Circle Check including:



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- A. Interview witnesses to establish basic event history to identify potential hazards and account for all occupants.
- B. Search a wider area to ensure no patients were ejected.
8. After confirmation that no Extrication or Stabilization is required, The Incident Commander (IC) should make full use of responding rescue squads, rescue trucks, and rescue engines by assigning crews to assist in patient care or other tasks such as:
 - A. To position upstream of the incident to provide early warning to approaching drivers
 - B. To expand or reinforce the Protected Work Zone
 - C. When there are multiple patients
 - D. If additional vehicle Stabilization is, or may be, required
 - E. To provide adequate lighting for patient assessment or to ensure personnel safety.
- b. Personal Protective Equipment
 1. Personnel assigned to engines, trucks, or rescue squads should don PPE (at least boots, pants, coat) prior to response to collisions.
 2. Personnel shall not enter the Inner Circle without Full PPE during an Extrication or when any flammable liquids are spilled or leaking.
 3. All personnel (including personnel assigned to patient care duties) must wear full PPE (including a hood) before entering a vehicle when an Extrication will occur.
 4. The IC may permit a lower level of protection for personnel working inside the Inner Circle as necessary; however, safety glasses, extrication gloves, helmets, long pants and protective boots will be the minimum PPE.
- c. Stabilization.

Vehicles or involved objects must be stabilized when:

 1. The initial size-up indicates that a vehicle or other involved object may move or shift in an uncontrolled or undesirable manner; or
 2. When a patient will receive C-Spine immobilization and will be removed from the vehicle by Fire Rescue personnel; or
 3. Any Extrication or tool-use is expected to take place on that vehicle.
- d. Extrication.



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A plan for Extrication should be developed and communicated to all units operating in the Inner Circle. The Extrication techniques and tactics must be based on the needs of the patient(s). Some patients may require rapid Extrication; some may benefit from a slower, more methodical Extrication.

1. Before an Extrication begins, the following actions must have been completed:

- A. All steps in Stabilization including isolation of engine power and 12v power if accessible.
- B. Ensure personnel are aware of, and avoid, high voltage power systems (battery powered or hybrid vehicles)

2. Anytime a patient is determined to be Pinned, all Extrication units must remain committed to the call (if a rescue truck and a rescue squad are dispatched).

e. Unit Assignments.

1. Ambulance/Medic Unit.

- A. Unit. If first arriving, position to protect the incident and rescuers and then for efficient access and egress, while providing adequate access for the rescue apparatus. If arriving after the heavy apparatus, or once heavy apparatus arrives on scene, the ambulance should be positioned within the Protected Work Zone and have their rear patient loading area angled away from the nearest lanes of moving traffic.
- B. Crew. Perform Inner Circle Check and determine the priority of patients; initiate patient care as appropriate. Perform an Outer Circle Check, if appropriate. Don Full PPE before entering the Inner Circle during an Extrication or if flammable liquids are present

2. First Arriving Rescue Squad, Rescue Truck, or Rescue Engine

- A. Unit. If no heavy apparatus is on scene, position as the initial Blocking Unit. After arrival of other heavy apparatus, consider repositioning for Extrication. If two Extrication units (rescue squad, rescue truck, or rescue engine) are dispatched, the second arriving Extrication piece shall position for Extrication and to increase the Protected Work Zone.

- B. Unit Officer. If necessary, establish Command, consistent with the Command Appendix. Ensure the completion of inner and Outer Circle Checks as necessary, develop and communicate a plan for Extrication.

- C. Crew. Perform Stabilization and Extrication.

3. Engine.



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A. Unit. Position to initiate or expand the Protected Work Zone and to deploy a hand line. If possible, position so that the pump panel is on the opposite side of oncoming traffic. Provide adequate access for the Extrication and transport units.

If the engine has rescue tools, the unit should position for scene safety first, then fire suppression, and then for Extrication.

B. Unit Officer. Assume or establish Command of the incident, consistent with the "Command Appendix". Ensure the completion of Inner and Outer Circle Checks, as necessary. Prepare for possible assignment as the Safety Officer if directed by the IC.

C. Crew. Begin or support patient care, and ensure any fires can be immediately suppressed. Disconnect 12v batteries that are accessible and make note of all passenger safety systems (air bags, etc.) in vehicles which have patients Trapped or Pinned. Remove ignition keys or move key fobs at least 15 feet from the vehicle.

D. Deploy one charged hose line of at least 1 ½" during any Extrication procedure or when flammable liquids are present.

E. A firefighter must staff the hose line wearing full structural firefighting PPE and SCBA with the cylinder valve on so that they are ready to immediately perform suppression activities. The facepiece needs to be ready to be donned, but does not need to be worn. Personnel assigned to this duty must not wear a traffic safety vest.

F. The use of dry chemical extinguishers or the addition of Class B foam can be considered to supplement fire suppression readiness.

f. Blocking Unit(s).

1. Prior to the arrival of heavy apparatus, light or medium duty apparatus should position as Blocking Units.
2. When operating near a jersey barrier, units should position close enough to the barrier that an out-of-control vehicle cannot pass through the gap.
3. When a Blocking Unit is exposed to high-speed truck traffic during a longer duration incident, it may be safer for personnel to exit the vehicle and move to a better protected position. Consideration should be given to exiting the Blocking Unit and moving behind a physical barrier (such as a jersey barrier) or further into the Protected Work Zone.
4. On large incidents or at intersections, multiple Blocking Units may be necessary.
5. Blocking Units should normally be the last units to clear the scene.
6. When roadway speed and line of sight give drivers inadequate distance to avoid Blocking Units, flares or apparatus should be positioned "upstream" from the Blocking Unit to



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provide early warning to approaching drivers.

7. Units that are not needed for incident management should be used to build or expand the Protected Work Zone.

SECTION 8. Cancellation:

This policy replaces and supersedes FRC Policy 24-04 *Vehicle Accident Response Policy*, 4/1/1995 and FCGO 16-01, *Rescue Squad/Rescue Truck or Engine Dispatch Pilot Program*, 1/19/2016.

SECTION 9. Attachments:

There are no attachments to this policy.

Approved:

A handwritten signature in black ink that reads "Scott Gold".

Fire Chief

01/02/2018

Date