



Scarborough Fire Department Scarborough, Maine



Standard Operating Guidelines

Book:	Emergency Operations
Chapter:	Alarm & Response Procedures
Subject:	3020 - Safe Vehicle Positioning
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PURPOSE

To establish parking practices for fire and rescue apparatus and vehicles that will provide maximum protection and safety for personnel operating in or near moving vehicle traffic.

POLICY

It shall be the policy of the Scarborough Fire Department to position apparatus and other emergency vehicles at any scene on any street, road, highway, hill, or curve in a manner that best protects the incident scene and the work area. Such positioning should afford protection to fire rescue personnel, law enforcement officers, tow service operators and the motoring public from the hazards of working in or near moving traffic.

SCOPE

All personnel should understand and appreciate the high risk that personnel are exposed to when operating in or near moving vehicle traffic. Responders should attempt to operate within a protected environment at any roadway incident and consider moving vehicles as a threat to your safety.

DEFINITIONS

The following terms should be used during incident operations, post-incident analysis, and training activities related to working in or near moving traffic:

- A. Advance Warning - notification procedure that advises approaching motorists to transition from normal driving status to that required by the temporary emergency traffic control measures ahead of them.
- B. Block - positioning fire apparatus on an angle to the lanes of traffic creating a physical barrier between upstream traffic and the work area. Includes 'block to the right' or 'block to the left'.

- C. Buffer Zone - the distance or space between personnel and vehicles in the protected work zone and nearby moving traffic.
- D. Downstream - the direction that traffic is moving as it travels away from the incident scene.
- E. Flagger - a police officer, firefighter, or fire police member assigned to direct approaching traffic and activate an emergency signal if the actions of a motorist do not conform to established traffic control measures in place at the highway scene.
- F. Shadow - the protected work area at a vehicle-related roadway incident that is shielded by the block from apparatus and other emergency vehicles.
- G. Taper - the action of merging several lanes of moving traffic into fewer moving lanes.
- H. Temporary Work Zone - the physical area of a roadway within which emergency personnel perform their fire, EMS and rescue tasks at a vehicle-related incident.
- I. Transition Zone - the lanes of a roadway within which approaching motorists change their speed and position to comply with the traffic control measures established at an incident scene.
- J. Upstream - the direction that traffic is traveling from as the vehicles approach the incident scene.

PROCEDURE

- A. Safety Benchmarks - All emergency personnel are at great risk of injury or death while operating in or near moving traffic. There are several specific tactical procedures that should be taken to protect all crewmembers and emergency service personnel at the incident scene including:
 - a. Never trust approaching traffic
 - b. Avoid turning your back to approaching traffic
 - c. Establish an initial "block" with the first arriving PD vehicle, engine or ladder.
 - d. Always wear full protective clothing and helmet when conducting hazardous operations on a roadway with moving traffic.
 - e. Personnel not involved in hazardous operations may wear a class II vest and helmet for personal protection.
 - f. Turn off all sources of vision impairment to approaching motorists at nighttime incidents including vehicle forward facing emergency warning lights, headlights and spotlights
 - g. Use fire apparatus and police vehicles to initially redirect the flow of moving traffic
 - h. Establish advance warning and adequate transition area traffic control measures upstream of incident to reduce travel speeds of approaching motorists
 - i. Use traffic cones for sustained highway incident traffic control and direction
 - j. Establish a police officer, firefighter or fire police member as "Flagger" to direct approaching traffic and activate an emergency signal if the actions of a motorist do not conform to established traffic control measures in place at the highway scene
- B. Apparatus and Emergency Vehicle Benchmarks - Benchmarks for safe parking of apparatus and emergency vehicles when operating in or near moving traffic are listed below:

- a. Position first-arriving engine or ladder to protect the scene, patients, and emergency personnel when possible.
 - i. Initial apparatus placement should provide a work area protected from traffic approaching in at least one direction.
 - ii. Angle apparatus on the roadway with a "block to the left" or a "block to the right" to create a physical barrier between the crash scene and approaching traffic.
 - iii. Consider "blocking right" at night time calls.
 - iv. Allow apparatus placement to slow approaching motorists and redirect them around the scene.
 - v. Use fire apparatus to block at least one traffic lane.
 - vi. When practical, position apparatus in such a manner to protect the pump operator position from being exposed to approaching traffic.
- b. Positioning of large apparatus should create a safe parking area for EMS units and other fire rescue vehicles. Operating personnel, equipment and patients should be kept within the "shadow" created by the blocking apparatus at all times. For this reason an engine will respond to all medical emergency calls on the Maine Turnpike or Interstate 295.
- c. When blocking with apparatus to protect the emergency scene, establish a sufficient size work zone that includes all damaged vehicles, roadway debris, the patient triage and treatment area, the extrication work area, personnel and tool staging area and the ambulance loading zone.
- d. At working extrications Squad 7, or another heavy rescue, must have priority parking within the shadow of the blocking vehicles to allow the removal of tools and hydraulic and electric lines for extrication use.
- e. Ambulances should be positioned within the protected work area with their rear patient loading door area angled away from the nearest lanes of moving traffic
- f. Command should stage unneeded emergency vehicles off the roadway or return these units to service whenever possible.
- g. At all intersections, or where the incident may be near the middle lane of the roadway, two or more sides of the incident may need to be protected.
 - i. Emergency vehicles should be strategically positioned to expand the initial safe work zone for traffic approaching from opposing directions. The goal is to effectively block all exposed sides of the work zone. The blocking of the work zone should be prioritized, from the most critical or highest traffic volume flow to the least critical traffic direction.
 - ii. For first arriving engine company where a charged hose line may be needed, block so that the pump panel is "down stream", on the opposite side of on-coming traffic, if possible. This will protect the pump operator.
 - iii. At intersection incidents, consider requesting fire-police response. Provide specific directions to the fire-police officers as to exactly what your traffic control needs are.
- h. Traffic cones should be deployed from the rear of the blocking apparatus toward approaching traffic to increase the advance warning provided for approaching

motorists. Cones identify and only suggest the transition and tapering actions that are required of the approaching motorist.

- i. Personnel shall place cones and retrieve cones while facing oncoming traffic.
 - j. Traffic cones should be deployed at 15-foot intervals upstream of the blocking apparatus with the furthest traffic cone approximately 75 feet upstream to allow adequate advance warning to drivers.
 - k. "Emergency Scene Ahead" signs may also be deployed at roadway incidents. Signs shall be positioned upstream, prior to the furthest traffic cone.
 - l. Additional traffic cones may be retrieved from PD units, DPW, or MDOT to extend the advance warning area for approaching motorists when necessary.
- C. Incident Command Benchmark - The initial-arriving company officer and/or the Incident Commander should complete critical benchmarks to assure that a safe and protected work environment for emergency scene personnel is established and maintained including:
- a. Assign the first-arriving engine or ladder to initially block to create a safe work area when possible.
 - b. Assign a parking location for all ambulances as well as later-arriving apparatus.
 - i. Lanes of traffic shall be identified numerically as "Lane 1", "Lane 2", etc. beginning from the left to the right when right and left are considered from the approaching motorist's point of view. Typically, vehicles travel a lower speed in the higher number lanes.
 - ii. Directions "Right" and "Left" shall be as identified as from the approaching motorist's point of view left or right.
 - iii. Instruct the driver of the ambulance to "block to the right" or "block to the left" as it is parked at the scene to position the rear patient loading area away from the closest lane of moving traffic.
 - c. All ambulances and extrication vehicles on-scene should be placed within the protected work area (shadow) of the larger apparatus
 - d. All patient loading into rescue units should be done from within a protected work zone.
 - e. The initial company officer and/or Incident Commander must operate as the Scene Safety Officer until this assignment is delegated.
 - f. At residential medical emergencies, the rescue should park off the roadway whenever possible. The engine should park upstream to block the scene.
- D. Emergency Crew Personnel Benchmarks - Listed below are benchmarks for safe actions of individual personnel when operating in or near moving vehicle traffic.
- a. Always maintain an acute awareness of the high risk of working in or near moving traffic
 - b. Never trust moving traffic
 - c. Always look before you move
 - d. Always keep an eye on the moving traffic
 - e. Avoid turning your back to moving traffic
 - f. Personnel arriving in crew cabs of fire apparatus should exit and enter the apparatus from the protected 'shadow' side, away from moving traffic
 - g. Officers, apparatus operators, crew members in apparatus with individual jump seat configurations, and all ambulance personnel must exit and enter their units with extreme caution remaining alert to moving traffic at all times.

- h. Protective clothing (either full PPE or class II vest and helmet depending on the activity of the personnel and the level of hazard) should be donned prior to exiting the apparatus.
 - i. Proper PPE for the nature of the call shall be worn by rescue personnel
 - j. Always look before opening doors and stepping out of apparatus or emergency vehicles into any moving traffic areas. When walking around fire apparatus or emergency vehicles, be alert to the proximity of moving traffic.
 - i. Stop at the corner of the unit, check for traffic, then proceed along the unit remaining as close to the emergency vehicle as possible.
 - ii. Maintain a 'reduced profile' when moving through any area where a minimum 'buffer zone' condition exists.
 - k. Police department personnel may place traffic cones or flares at the scene to direct traffic. This action builds upon initial FD cone deployment and can be expanded, if needed, as later arriving police officers arrive. Always place and retrieve cones while facing on-coming traffic.
- E. High-Volume, Limited Access Highway Operations - When responding to the Maine Turnpike or Interstate, the responding Duty Officer shall contact the responding Maine State Trooper as identified by dispatch on "Region 1" ("Region 2" is the backup channel) to establish a communications link for any pre-arrival information such as verification of location, best means approach and resource needs. The Department On-Scene Incident Commander should establish a Unified Command with the responding police officer as soon as possible to jointly coordinate a safe work zone and to determine how to most efficiently resolve the incident and establish normal traffic flow. If it becomes essential for the safety of operating personnel and the patients involved, the incident commander may shut down all lanes of travel. Communications with police must occur before any additional lane closures. This should rarely occur and should be for as short a period of time as practical. Unique safe parking procedures at limited-access, high-volume, multi-lane roadway incidents may require that:
- a. First-arriving engine or ladder company apparatus should establish an initial block of the lane(s) occupied by the damaged vehicle.
 - i. Traffic cones on limited-access, high-volume roadways should be placed farther apart, with the last cone approximately 150 feet "upstream", to allow adequate warning to drivers. Personnel shall place cones and flares and retrieve cones while facing the traffic.
 - ii. "Emergency Scene Ahead" signs may be deployed at highway incidents. Signs should be positioned upstream, prior to the furthest traffic cone.
 - iii. On the Maine Turnpike and Interstate 295, responders should establish measures to safely guide traffic around an incident scene as follows:
 - If there is only one lane affected by the incident, or if the incident is on the shoulder only, responders shall take one additional lane for a workspace whenever possible.
 - If the incident is completely off the paved area of the highway, responders shall attempt to park their vehicles only in the right shoulder lane whenever possible.

- Under no circumstances should traffic be allowed to flow around both sides of an incident scene.
- b. Police department vehicles may be used to provide additional blocking of additional traffic lanes as needed. Ambulances and extrication vehicles should be positioned within the safe work zone.
- c. Staging of additional companies off the highway may be required. Multiple ambulances may be brought onto the highway scene individually or all at one time. An adequate size multi-patient loading area may need to be established.
- d. The termination of the incident should be managed with the same aggressiveness as initial actions. Crews, apparatus, and equipment should be removed from the highway promptly, to reduce exposure to moving traffic and minimize traffic congestion. When possible this should be done in a coordinated effort with all units clearing the scene at the same time with assistance from the police.

RESPONSIBILITIES

It is the responsibility of all Scarborough Fire Department members to adhere to this policy.

REFERENCES

- A. MSRS Title 29-A
- B. NFPA 1521
- C. VFIS Safe Vehicle Positioning, 10 cones of safety
- D. Maine Bureau of Labor, traffic control at emergency scenes
- E. Greater Portland Council of Governments Traffic Incident Management Guidelines – December 2011