Operating Guideline # 902

Traffic Control

October 5, 2022

PURPOSE:
The purpose of this Operating Guideline (OG) is to establish guidelines to protect firefighters performing their duties at emergency incidents on roadways from being injured from other traffic.

ISSUE/RATIONALE:
Moving traffic presents a very real threat of injury or death to firefighters and other first responders operating on or near roadways (highways). At all emergency incidents that occur on highways, it is important to create a safe area. This will be accomplished by protecting rescue workers from traffic flows using emergency vehicles as “shields” or “blockers”; and using emergency lighting, personal protective equipment and traffic control measures so that traffic is diverted safely away from firefighters.

GUIDELINE:

1. Roles and Responsibilities Regarding Traffic Control

Agency	Role
911 and Dispatch	Receive 911 calls from land lines & cell phones Dispatch appropriate response agencies.
O.P.P.	Assist in incident detection and verification. Determine severity of incident and relay information to dispatchers. Isolate and secure incident scene. Set up initial traffic control devices. Determine additional personnel/equipment needed to be called in. Scene clearance. Direct traffic. Identify requirements for crash investigations.
Muskoka Lakes Fire Department	Protect and contain incident scene. Assist in direction of traffic. Provide initial dangerous goods response and/or request additional clean-up resources for spills. Report Spills on behalf of municipality to MOE Report any damage to infrastructure to Road Authority Assist in incident clearance.
Muskoka Paramedic Service	Protect and contain incident scene when first on scene. Determine destination & transportation requirements for injured. Coordinate extrication/rescue with firefighters, police, or airlift personnel. Transport incident victims.

Agency	Role
Road Authority Personnel (or agent)	Assist in incident detection and verification. Provide initial and longer-term traffic control. Provide special equipment or resources as requested. Provide cleanup and maintenance of damaged highway infrastructure. Contain minor spills, if possible. Coordinate with law enforcement regarding alternate routes. Coordinate personnel resources. Assess infrastructure damage. Assist in incident scene clearance. Supervise site remediation and re-opening. Assist in incident detection and verification, communicate with emergency services. Operate Intelligent Transportation System (ITS) devices per approved response plans. Provide traveler information to public and media, such as estimated time length for closure. Allocate and dispatch service patrols. Notify other agencies of incident, as required.
Towing & Recovery	Assist with incident detection and verification. Secure incident scene if no encroachment into live lane. Assist with and relocate disabled vehicles. Provide containment of minor spills. Clear the scene.

2. The first priority upon arrival is to establish initial traffic control that provides a safe work area for responders and the public and minimizes the chance of secondary crashes. Upon arrival, responders should make an estimate of:
    1. The magnitude of the incident, then:
    2. The expected duration for recovery.
3. Traffic control can then be progressively established based on this estimate. A preferred sequence would go follow this sequence:
    1. Full closure (all lanes), to
    2. Single lane, and to
    3. Shoulder closure until the incident is fully resolved and traffic flow return
4. Progression of Traffic Control – see below

Operating Guideline # 902

Traffic Control

October 5, 2022

Upon Arrival	1. Only firefighters, Police & Road Authority persons can provide temporary traffic control. Radio to notify OPP if traffic control started 2. Ensure all emergency lights are activated 3. Conduct initial scene survey to identify hazards and provide Initial Radio Report to responding units and dispatch 4. Place vehicle either in fend off position or straight to protect scene, remember to turn wheels away from scene. Activate any directional arrows. 30 m from incident. 5. All personnel must wear high vis vests and full PPE.
Initial Set Up	6. Safely facing traffic place cones and/or flares to form an initial taper with devices on hand. Taper should be 30 m long. 7. Position additional responder vehicles to enhance the traffic safety zone or direct these responding apparatus where to stage safely. Life safety is the primary concern, this means that EMS needs room for stretchers unimpeded by hoses and tools, this unit should be closest to patients. 8. Rescue units with Auto Extrication equipment should be next closest to where required followed by the Pumper for fire control. 9. If there is a fire, the closest responding vehicle should be the fire pumper. 10. If required, call for additional resources early. If there are two vehicles with two entrapments you require 2 rescues. Rescues come from Raymond, Port Carling and Foots Bay Stations.
Enhanced Traffic Control	11. Place appropriate advisory signs, “EMERGENCY SCENE AHEAD” (pink in colour) in the advance warning area as soon as possible. 70m from taper. 12. Expand taper and cone placements for highway conditions and estimated on-scene time. 13. Place 4 Cones in other oncoming lane 15 m from incident scene and other advisory sign 30 m from the end of these cones. (see diagram) 14. Place TCP on each side to control traffic. Ensure that these personnel have a communications plan and radio, should be 3 personnel. 1 for each TCP point and one spotter/runner to relieve these personnel.
Ongoing Traffic Control	15. When an extended duration scene of more than two hours is anticipated, additional traffic control devices shall be provided as shown in OTM Book 7. This traffic control should come from road authority or OPP.

5. Command needs to be established from the first arriving responder at an incident or unplanned event. The responsibility of the Incident Commander is to:
    1. Stabilize any patients before beginning operations.

2. Stabilize the incident.
3. Stabilize the property and the environment.
4. Provide potential ingress and egress routes for responding units.

6. The Incident Commander may change among the first responders as the incident progresses. For example:

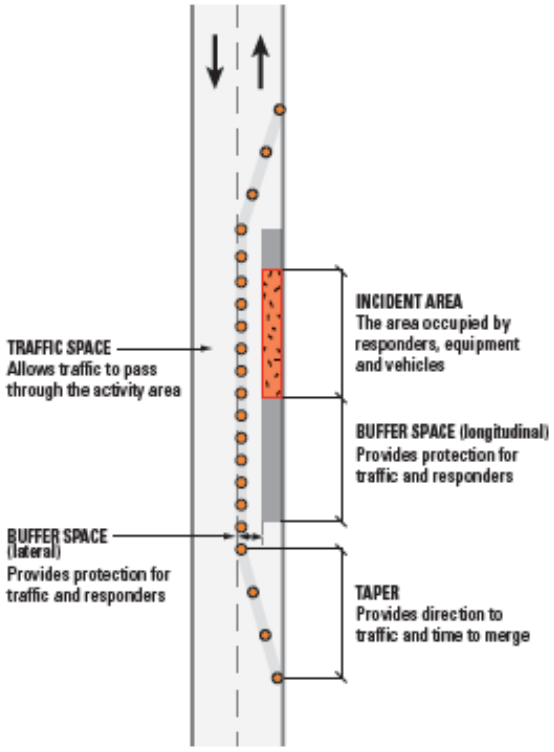
Incident Situation	Appropriate Commander
1. Medical treatment required for patients where no extrication is required and there is no risk of fire	Muskoka Paramedic Service
2. Extrication is required or there is a risk of a fire. Dangerous goods are present. Vehicle requires stabilization. Hydro lines are present or potentially near. Full closure of the road is required due to large incident.	Muskoka Lakes Fire Department
3. Patient stabilized, or transported from scene, or the fire is extinguished. Focus of command changes to perimeter safety of all parties and expediting traffic flow.	O.P.P.

7. Any potential hazards to responders or highway users should be identified, and traffic control adjusted accordingly. Hazards that may affect traffic control include:
   - Poor visibility due to weather
   - Limited/obstructed sight lines – hills, curves, trees, signs, etc.
   - Increased driver reaction time required due to wet, icy, snow covered
   - Impact of highway type – gravel, paved, current surface conditions.
   - Prevailing traffic characteristics –speed, volume, heavy vehicles.
   - Impacts from type or level of lighting – artificial illumination (night), sun direction, dusk/dawn.
   - Potential impending environmental impacts – debris, chemical leak, etc.
   - Estimated on-scene time.
8. The first responder to an unplanned event should:
   - Make an estimate of the expected on-scene time.
   - Determine the adequacy of the resources on hand to maintain traffic control for the entire duration
9. Extended duration scene traffic incidents typically involve the closure of all or part of a highway facility for a period that exceeds two hours. Examples include:
   - Chain reaction crashes.
   - Crashes that require a significant medical response, coroner response, and/or crash reconstruction response (e.g., fatalities).

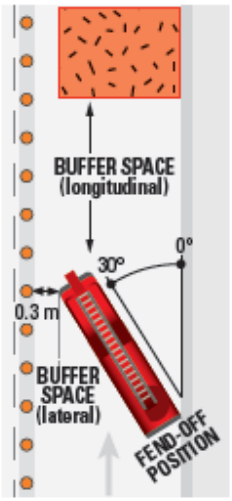
• Incidents that involve advanced, prolonged environmental cleanup (e.g., incidents that involve dangerous goods).
• Incidents that involve structural damage to highway infrastructure.
• Incidents that involve a mass evacuation. A mass evacuation could lead to prolonged incident response in areas outside of the immediately affected zone.
• Wildfires near the highway

10. All firefighters that are exposed to the hazards of passing traffic must wear High Visibility Safety Apparel (HVSA) appropriate for the circumstances. All emergency responders, including secondary support, shall wear HVSA if they are:
    • Setting up/removing traffic control devices.
    • Directing traffic.
    • Working within three metres of a live lane.
11. Flashing lights on emergency response vehicles provide visibility and give immediate information to the travelling public of an emergency. Use of flashing lights must comply with the Highway Traffic Act (HTA). Too many warning lights can be confusing to drivers. Flashing lights should be used with discipline and discretion to minimize the impact on traffic flow. As practicable, it is recommended that once good traffic control is established at the incident scene, their use should be reduced such that:
    - The number of lights is minimized to avoid creating glare for motorists and reduce “rubber necking” behavior.
    - No forward-facing (into oncoming traffic) emergency lighting is occurring. Headlights off.
    - Emergency response vehicles should have dimmer settings for vehicle lights for use at night.
12. Flares should be placed to illuminate cones and lights if required, in placement where cones would be & in front of cone to offer better visibility of the cone.
13. EMERGENCY SCENE AHEAD (pink) signs should be placed to provide enough warning for vehicles to slow down before reaching the incident scene. For situations near a corner, hill, or other reduced visibility situations, may require the location of advance warning devices to be adjusted. Incidents should have warning signs placed, as practicable, approximately 160 metres in advance of the beginning of the taper. Signs should be placed on the shoulder of the travelled lane.
14. Traffic cones are used as channelizing devices and to alert highway users to hazards in or near the travelled way.
    • Cones should provide a smooth and gradual transition in moving traffic from one lane to another, into a detour, or in reducing the width of the travelled way.
    • Where possible, they should be set 0.3 metres back from the edge of a live traffic lane.
    • The standard cone is the 700 mm with a white reflective collar.

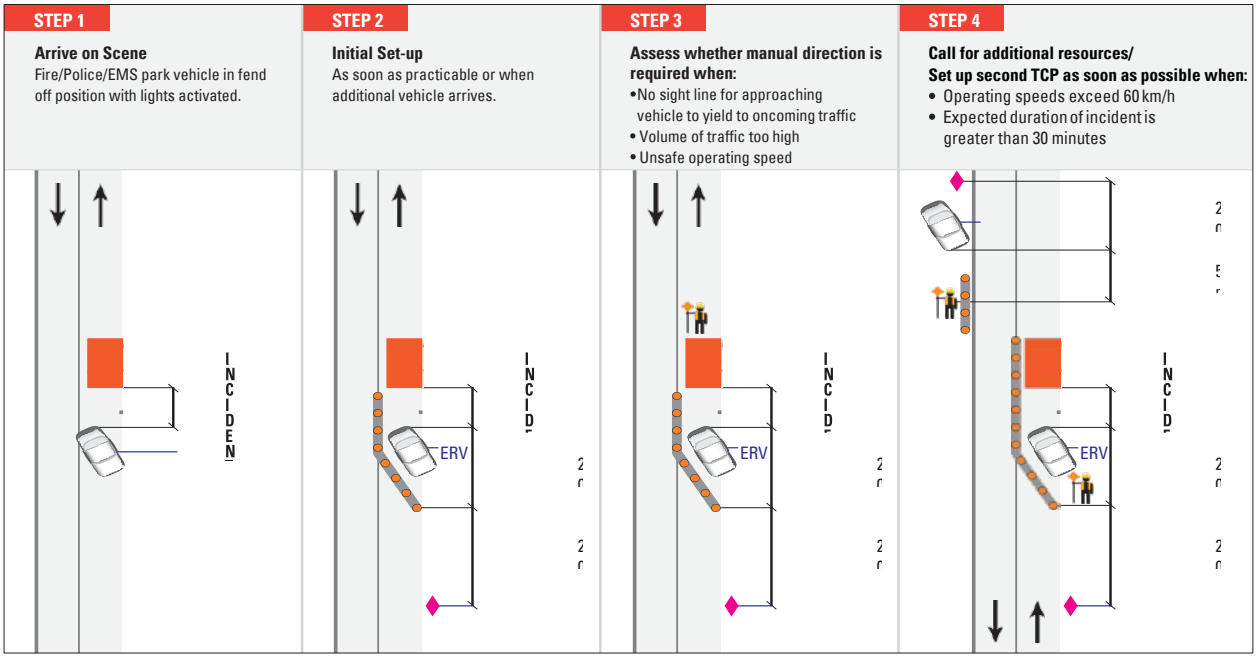
15. Manual traffic direction may need to be provided by qualified trained personnel such as a Traffic Control Person (TCP) during the initial phase of the response. Normally, the TCP is one of the OPP members, however, manual traffic direction could also be provided by the fire or road authority (or agent). TCP may be used to guide traffic when:
    - Travel lanes are partially blocked.
    - The shoulder must be used to pass by the incident.
    - Only one lane is available for two-way traffic.
16. TCP can not be used when speeds are in excess of 90 kph.
17. TCP must always face traffic, use the provided STOP/SLOW paddles, and have established the procedure on radio to confirm when to release traffic.
18. TCP shall name each by the direction of travel, ie. Westbound, Eastbound, Northbound or Southbound.
19. TCP should always halt or STOP traffic when in doubt.
20. A Traffic Control Officer shall be established that ensures that the control measures are appropriate, the team is on the right channel and this officer shall be the spotter from the incident.
21. Full Stop means both sides must halt their traffic, this is to provide emergency responders or tow the ability to maneuver at the incident scene.
22. Traffic Control Officer should use an air horn and radio with the terms “MAYDAY” repeated three times when a motorist is not conforming to established traffic control. Upon hearing the air horn or “MAYDAY” TCP’s shall initiate full stop.
23. Risks increase on highways with a posted speed of 70 km/h or greater. Therefore, on any highway with a posted speed of 70 km/h or greater, a Support Vehicle should be dispatched along with the primary response vehicles. This is Car 1, Car 2 and Car 3, all have traffic control devices and arrow sticks.
24. Personnel should place and retrieve cones with a spotter and always facing traffic.
25. Tapers should encompass all equipment on scene.
26. Maximize the space covered with the cones/flares available.
27. A buffer space should be established between the incident



scene and emergency vehicles. The suggested distance is 4 m for every 10 kph of posted speed. We use 30 m for all our emergencies.



28. Position the front bumper/ or back bumper of the emergency vehicle no closer than 0.3 m from the live lane, see diagram.
29. Traffic control at rail crossings is controlled by crossing signs/signals. First responders can neither stop the train nor control their signals.
30. If an incident affects rail traffic movement or presents a hazard anywhere along the right of way for the railway, contact CN Rail 1 800 465 9239 or CP Rail 1 800 716 9132 to notify them. Radio Dispatch to perform this task first.
31. Traffic Control must be provided that prevents vehicles from stopping on railway tracks.
32. Traffic Control on Hwy 11 or Hwy 400 present special problems for emergency traffic control. Moving vehicles should always be considered a threat to safety. When working at highway speeds:
    1. Extra care must be taken to ensure visibility
    2. All lane closures should start from nearest shoulder to the incident site and extend across as many lanes as required, separately closing each lane
    3. Lane closures must be accomplished with vehicles only
33. Typical Set up for Traffic Control…



Operating Guideline # 902

Traffic Control

October 5, 2022

DEFINITIONS:
TCP – Traffic control person
Cone – Pop up 700 mm traffic pylon with 100 mm reflective white collar
Police – OPP

RESPONSIBILITY:
It is the responsibility of all firefighting staff to comply with the provisions of this Operating Guideline.

REFERENCES:
- The Highway Traffic Act
- Ontario Traffic Manual April 2022 Appendix A: Unplanned Events