The 2014
Commonwealth of Massachusetts

Unified Response Manual (URM)

for the Massachusetts Highway System

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August 1, 2014

Revision Control

Revision Number	Revision Date	Authorized By:	Entered By:	Notes
1	9/26/14	Lorenzo Parra	Peter Cusolito	Administrative change to DPH text, page 39
2	9/26/14	Lorenzo Parra	Peter Cusolito	Addition of administrative text for DCR, pages 11 & 40

Resolution for Adoption
of this
UNIFIED RESPONSE MANUAL FOR ROADWAY TRAFFIC INCIDENTS

WHEREAS: The Undersigned, representing their respective agencies and organizations have participated as members of the Incident Management Task Force Committee, hereinafter the Committee, and;

WHEREAS: The committee has been charged with the task of improving the safety and efficiency of Roadway Incident Management and has examined the skills, resources, and practices of committee member agencies and organizations to devise a plan for providing the Commonwealth and its motorists with Unified Emergency Response Services on its roadways, and;

WHEREAS: The committee has identified and combined the essential elements of Unified Command, accepted standards of Fire and Life Safety and Emergency Medical Response, and the latest standards of Traffic Management, Incident Management and Hazardous Material Mitigation, and;

WHEREAS: The committee has organized these agency standards of emergency response management with a series of matrix charts which define Traffic Incident Levels, HazMat Incident Levels, Agency Response Assignments, Incident Clearance and Mitigation Responsibilities, and relevant supporting documentation in a proposed text entitled the UNIFIED RESPONSE MANUAL for ROADWAY TRAFFIC INCIDENTS;

NOW THEREFORE: Be it resolved that the undersigned on the ___day of ___, 2014, do approve and adopt this manual for use by these participating agencies and organizations for purposes of reducing the detrimental and unsafe effects of traffic incidents and improve the emergency response effort on the roadways of the COMMONWEALTH OF MASSACHUSETTS.

Signature on file
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Administrator, Highway Division
Massachusetts Department of Transportation

Signature on file
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Commonwealth of Massachusetts

Unified Response Manual for the Massachusetts Highway System

Acknowledgements

This document represents the revised and updated Unified Response Manual for the Massachusetts Highway System.

This document has been developed with the understanding that it is prepared by the Massachusetts Department of Transportation, Highway Division, working in concert with its public safety and life safety partners, and the official membership of the Traffic Incident Management Task Force. This is a high level planning instrument, and is meant to capture general agreement with respect to how first responders will work together to advance the concepts and principles of traffic incident management. It should not be seen as superseding or replacing agency or discipline-specific procedures and protocols, laws or regulations.

1.0 Executive Summary

The Mission of the Massachusetts Department of Transportation is to deliver excellent customer service to people who travel in the Commonwealth, and to provide our nation's safest and most reliable transportation system in a way that strengthens our economy and quality of life. This Unified Response Manual (URM) establishes a comprehensive statewide traffic management plan to be used by all responders for all Massachusetts Highway roadway incidents.

1.1. *National Facts and Figures*

Recurring and non-recurring congestion continues to build and is a constant draw on our state and national economy. In addition to increasing daily volume, often cited studies on urban mobility by the Texas Transportation Institute indicate that more than half of the nation's traffic congestion is due to crashes and other incidents. This data – as well as the recognition that improvements in accelerating and better coordinating emergency response actions can greatly help restore normal traffic flow more quickly and reduce the likelihood of secondary incidents – has been the impetus for formalized traffic incident management (TIM) programs. Nationwide, according to the most recent FHWA Traffic Incident Management publication which is focused on Quick Clearance Laws, TIM efforts are credited with reducing annual delay by 129.5 million hours with associated cost savings of $2.5 billion. It is prudent to believe that TIM efforts will become more important in the future.

It is worth noting that nationally:

- Each year about 5 firefighters are killed in struck by incidents
- Each month, about one police officer is struck by a vehicle and killed somewhere in the US
- Each week a tow operator is killed
- Every three days a worker is struck and killed in a roadway workzone
- Traffic congestion costs American motorists $87.2 billion per year in wasted time and fuel costs – more than $757 for every U.S. traveler
- The total amount of wasted fuel topped 2.8 billion gallons – 24 gallons of gas for every traveler
- Americans spend 4.2 billion hours a year stuck in traffic
- Nationally, in 2007, the average driver languished in rush-hour traffic for 36 hours – nearly one full work week for every traveler

These statistics illustrate the importance of a Traffic Incident Management Program.

1.2. *Massachusetts History*

The MassDOT-Highway Division has a long history of recognizing the benefits of traffic incident management. As a primary sponsor of technical conferences in 1991, Massachusetts was one of the early leaders in establishing a Traffic Management Team, drafting unified incident response manual procedures, producing the first multi-agency Unified Response Manual for Roadway Traffic Incidents in July 1998, and making the important link to centralizing operations at a traffic management center. These efforts laid the groundwork for the current MassDOT Traffic Incident Management Program.

1.3. *Need for Unified Response*

In response to the growing number of incidents and injuries on our highways, the need for improved traffic incident management programs and practices has been identified to:

- Reduce Traffic Congestion. Traffic incidents account for about one-quarter of all congestion on U.S. roadways. For every minute that a freeway travel lane is blocked during a peak travel period, four minutes of travel delay results after the incident is cleared. Safer, more efficient traffic incident management will reduce congestion by reducing incident duration and preventing secondary incidents.
- Increase Responder Safety. One of the leading causes of death and injury for emergency responders is being struck by vehicles while working alongside the highway. Improved incident management reduces responder risk by improving traffic control at incident scenes and reducing incident duration and risk exposure.

Under the leadership of the National Traffic Incident Management Coalition, the National Unified Goal (NUG) for Traffic Incident Management, a unified national policy was developed by major national organizations representing traffic incident responders. The NUG focuses on three objective areas:

- Responder Safety;
- Safe, quick clearance; and
- Prompt, reliable, and interoperable communications.

These three objectives are supported by eighteen (18) strategies that are designed to include recommended practices for multi-disciplinary TIM operations and communications; Multidisciplinary TIM training; goals for performance and progress; promotion of beneficial technologies; and partnerships to promote driver awareness.

Productivity loss is a cost created by highway congestion and delay. Loss of productivity adversely impacts business, government, education and quality of life. Every effort should be made to minimize this cost, the impact to public safety and the inconvenience to motorists of the Commonwealth.

2.0 Summary of the Massachusetts Highway System

2.1. *Roadway Network*

The Highway Division roadway network consists of almost 10,000 lane miles and over 3,000 center line miles of intestates, arterials, collectors, and local roads. The roadway network is supported from 133 maintenance depots with 65 fuel sites. Portions of the roadway are monitored at the HOC through over 1,000 traffic and security cameras. The roadway network also includes over 5,000 bridges and 7 tunnel systems.

2.2. *Parkway System*

The Department of Conservation and Recreation (DCR) maintains over 289 centerline miles of roadway, as well as two major tunnels, 8 fueling sites and approximately 235 traffic signals within the Commonwealth. Under the authority of the DCR Commissioner and the Director of MEMA, all DCR emergency calls are filtered through MEMA State Control in Framingham. During storm emergencies, DCR emergency calls are dispatched through the MassParks Storm Center.

2.3. *Roadway Users*

According to the 2010-2011 Massachusetts Travel Survey, there are 26.6 million daily trips for all purposes (work, school, shopping, recreation, etc.) on the state's roadways. The Survey also noted that nearly one-third of all trips do not originate from (or return to) home – they are based from other locations. For example, of work-related trips, only 13.4% of all trips are for commuting from home to a job and then from job back to home. Each day, up to 5 million vehicles from Massachusetts and surrounding states collectively travel over 150 million miles on all roads across the Commonwealth. These volumes are generated from over 4.7 million licensed Massachusetts drivers, plus at least 200,000 more from out-of-state. Each day, over 165,000 workers commute into Massachusetts from our surrounding states, including over 80,000 from New Hampshire and 55,000 from Rhode Island. Within the City of Boston, the entire Central Artery/Tunnel processes about 536,000 vehicles per weekday. This includes 323,000 vehicles entering on the expressways, and 213,000 from all local ramps (including the Logan tunnels). The single highest traffic volume location in the state is the I-93/I-95(128) Interchange in Woburn and Reading. This crossing of two busy interstate highways processes around 375,000 vehicles per weekday. DCR roadway users range from commuters to pleasure travelers and local residents.

3.0 Purpose and Background of the Plan

3.1. *Purpose*

The Unified Response Manual (URM) has been developed to support multiple entities that may need to perform various activities in the highway system, including incident management, fire protection, law enforcement, and life safety services. While the purpose of the URM is not to replace plans and policies internal to any agency, it does provide the roles and responsibilities for those agencies and organizations that respond to an incident on a Massachusetts highway.

The URM identifies incident management procedures and communication protocols to be utilized by the responding agencies. The manual is designed to provide guidance for the deployment of resources for any incident of an escalating nature that requires a modular and scalable response and the use of an incident command structure. The signatory agencies have or may develop specific emergency response procedures and protocols based on this manual, maintaining and updating those procedures on a regular basis as necessary based on lessons learned from actual events, training, and exercises.

3.2. *Background*

This document reflects the ongoing cooperative relationships of the signatory state agencies, and many other public and private traffic incident management stakeholders.

The manual is also meant to supplement MassDOT's overall Emergency Management Plan (EMP), which outlines the organization's concept of operations and assigns emergency management functions to multiple divisions of the organization, reflecting a commitment to utilize standards established by the United States Department of Homeland Security (DHS), National Incident Management System (NIMS) Incident Command System (ICS).

3.3. *Application*

Since most, if not all, roadway incidents involve multiple agencies and organizations, cooperation among them is critical to ensure the safety of all responders and that the incidents are brought to a timely and successful conclusion. This requires a coordinated, unified response that efficiently mitigates incidents and restores roadway capacity quickly and safely. As stated in NIMS:

"The many different and complex situations encountered by emergency response personnel require a considerable amount of judgment in the application of the incident management system. The incident commander shall apply the system in a manner that is appropriate for the circumstances of each specific situation."

Every incident requires that certain major management activities be performed. Even if the incident is small, and/or only one (1) or two (2) people are involved, these activities are applicable to some

degree. The principles in this URM should always be applied, even to routine incidents, to create familiarity with the system, to be prepared for escalation and to be aware of the risks that exist in all incidents.

It is the intent of this manual to provide structure and coordination in order to provide for the safety and health of the motoring public, emergency responders, the surrounding population and to standardize the response, clearance and recovery of incidents on the roadways and major arterials within a multi-agency environment. This manual requires the use of Unified Command at all appropriate roadway incidents as previously described. It establishes and defines the role and responsibilities of each responding agency.

4.0 TIM Program Overview

Any incident, including vehicle breakdowns, vehicular fires, collisions, or medical emergencies, can cause serious delay, backups and slowdowns. The potential for secondary accidents increases because of these unexpected slowdowns and congestion. Therefore, it is important that traffic management be implemented to direct motorists away from the incident and that response crews act as quickly as possible to clear the roadway and return traffic flow to normal. The Massachusetts Traffic Incident Management Program was established to provide a unified effort to plan and coordinate the process of detecting, responding to, and removing traffic incidents to restore traffic capacity as safely and as quickly as possible.

Traffic incident response often must be handled by many disparate agencies, all having valid functions but different and sometimes conflicting priorities at the scene. The formalized TIM Program facilitates the interagency coordination necessary to ensure each agency is able to achieve their goal as part of a larger response effort.

Following the precepts of the National Incident Management System (NIMS) doctrine, the principles of Unified Command, and industry best practices, the Massachusetts TIM Task Force serves as the coordinating body for the TIM Program. The TIM Task Force has evolved into a standing Task Force representing key state agencies, the cities and towns, and other stakeholders who evaluate incident management techniques and encourage sharing of resources in an effort to continue to improve incident management safety and efficiency. The TIM TF mission is:

"… to support MassDOT's efforts to manage the State Highway System in a safe and reliable manner, by making it resilient and able to recover quickly after a disruption of service."

The primary goal of traffic incident management is to rapidly respond to roadway incidents in order to effect safe, quick clearance and minimize their impacts and to reduce the probability of secondary incidents from occurring. The Commonwealth's TIM program includes the following objectives:

- Ensure that first responders are well versed in NIMS and ICS and that they are sufficiently cross-trained to understand response constraints faced by responders from other agencies and government jurisdictions
- Reduce the time for incident detection, verification and response
- Establish procedures for safe and effective on-scene management of personnel and equipment while maintaining as many lanes as possible open to traffic (e.g. provide safe and quick clearance)
- Reduce the clearance time of the incident
- Provide timely and accurate information to the public

4.1. *Clearance Goals*

Safe, quick clearance of traffic incidents increases responder safety by reducing their exposure time to traffic. Similarly, shorter incident duration and improved traffic control enhance motorist safety by reducing the length of lane blockages and road closures which reduces exposure and helps reduce

secondary collisions. Quick clearance also reduces the societal costs of congestion such as lost time and extra fuel costs incurred when motorists and truck drivers are caught in traffic congestion. Goals for clearance vary with the type of incident, vehicles involved, location, injuries, and resources available. To establish realistic clearance times, the Traffic Incident Management Task Force will conduct an annual review of incidents by category and severity.

Working collaboratively, the Task Force will develop recommendations for establishing traffic incident management performance goals for clearing various incident and roadway scenarios.

4.2. *Incident Management and Communication*

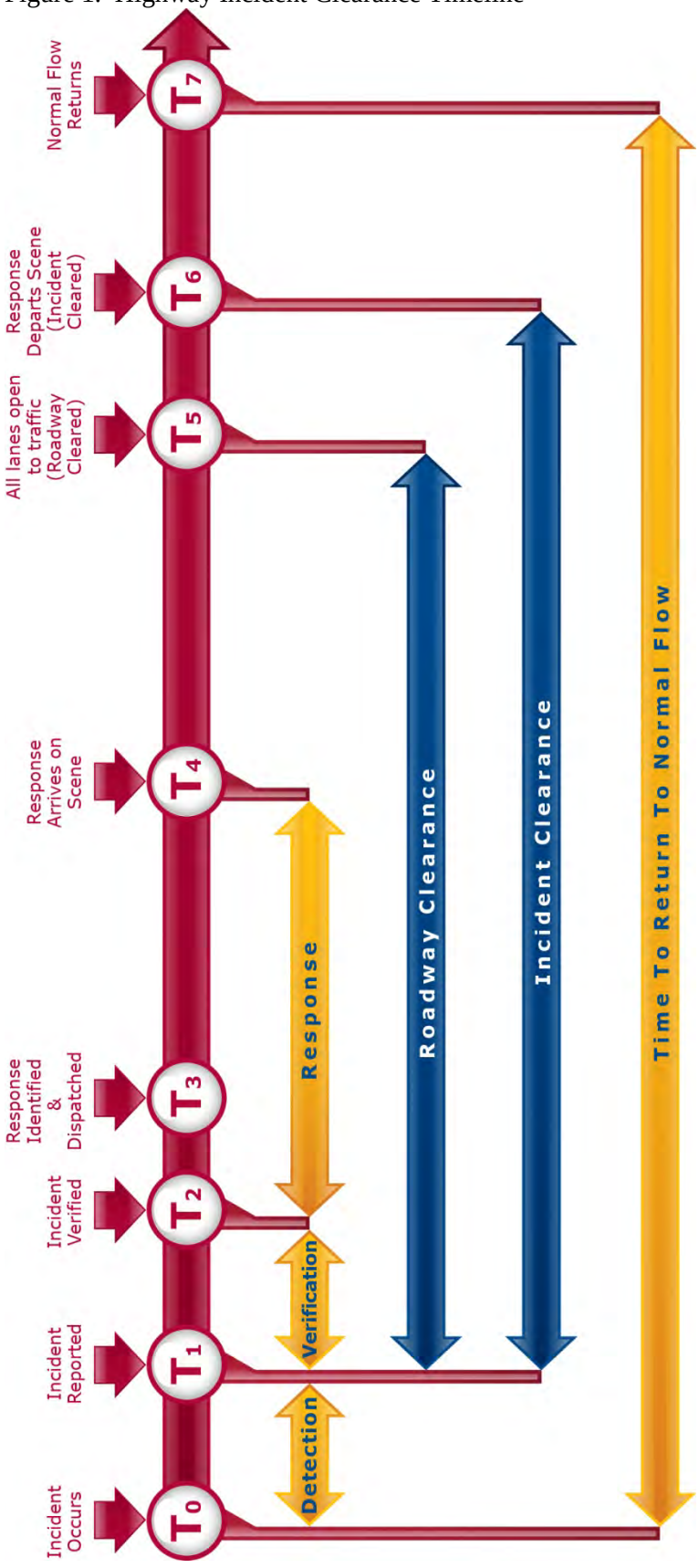
Interagency communication is essential to achieving safe, quick clearance of roadway incidents. Though incident specific communication begins with detection, all responder and coordinating agencies must maintain lines of open and continuous communication. During an incident, the Highway Operations Center (HOC) plays a critical role in managing incident communications, utilizing an established internal communication network that provides standardized situation reports.

4.2.1 The Traffic Incident Management Continuum

The Traffic Incident Management Timeline lays out the sequence of activities from when an incident occurs until traffic conditions return to normal. Normal traffic conditions does not necessarily mean that traffic is travelling at the posted speed limit. During peak use periods, traffic volume may still result in congestion that is normal for that roadway at that time.

- **Roadway Clearance Time:** This interval is defined as the time between the first recordable awareness of an incident (detection, notification, or verification) by a responding agency and first confirmation that all lanes are available for traffic flow.
- **Incident Clearance Time:** This interval is defined as the time between the first recordable awareness of the incident and the time at which the last responder has left the scene.
- **Return to Normal Flow:** It is worth noting that the time to return to normal flow is significantly longer than clearance times. It is for this reason that incident clearance (management) is so important.

Figure 1. Highway Incident Clearance Timeline



5.0 Concept of Operations

This section provides an overview of the manner in which the emergency response network is utilized for event assessment and notification, response and deployment, recovery and restoration, in a safe manner, consistent with the principles of an Incident Command Structure.

5.1. *Event Assessment and Notification Procedures*

The initial assessment of an event often lies with the first responder in the primary affected area who may have witnessed the event or may have been contacted regarding the event and deployed to the event. Personnel responding may include State Police, incident response operators, toll collection staff, emergency service personnel or other maintenance personnel. HOC staff may also have captured first knowledge of an incident through closed circuit monitors or through incident detection devices. In some cases, a member of the public may provide initial information to the organization regarding an event.

The first task for the responder is to assess the event and then notify his/her immediate on duty-supervisor, the State Police, and the HOC. The HOC provides key communication, event preparedness, and operational response information to the organization. HOC staff members are responsible for classifying events, based on the information received in the initial assessment, available images it monitors, or information received as the event develops. As information is obtained and verified about a developing event, the HOC will alert designated division and department personnel, and appropriate agencies. When an event has been declared, reclassified, or terminated, notification will be made through the HOC to all designated emergency preparedness personnel. The HOC initially will:

DETECT: Incident detection or information regarding an incident is received from a variety of public and/or private sources. The source of the initial report may impact the first steps necessary to confirm the existence and scope of the incident. The primary goal during the initial detection phase is to obtain accurate information regarding the exact location and information about the incident to classify and alert the appropriate personnel/agencies.

NOTIFY: Depending on the nature and location of the incident, the HOC will make several notifications to dispatch the correct response assets to the scene. In most instances, the first response resource at the scene of an incident will be the State Police or a MassDOT District Maintenance representative. Once on-scene, the State Police will assume responsibility for requesting or relieving other response assets.

The HOC manages an incident classification and notification system, providing reports to MassDOT personnel and external entities throughout the course of an incident until normal operations have been resumed. To simplify and provide effective guidelines for incident response, incidents are categorized by the level of response required. Characteristics considered in establishing the level/degree of an incident include: expected duration, seriousness, personal injury, property damage, threat to the environment, impact on traffic (number of blocked lanes or facility closure) and hazardous material releases.

5.2. *Event Classification System*

MassDOT's Event Classification System is designed to ensure that every event that occurs within the boundaries of the organization or impacts operations is designated a numerical response value among five increasing levels, from event level 0 to event level 4. The system provides a mechanism through which different personnel can be notified of roadway conditions and through which material and human resources can be deployed to and managed for eight different types of events until restoration of operations has been achieved. Its utilization ensures that MassDOT commits sufficient first responder and support resources to an event in an efficient and prudent manner, and that sufficient administrative staff are available to provide additional support, if necessary. The system corresponds to the escalation levels for Emergency Operations activation at the Massachusetts Emergency Management Agency. It also corresponds to incident typing guidance issued by the National Incident Management System in the Incident Command System Training 200.

Table 2 depicts the criteria used to define each traffic or hazard level. For example, a two car crash, blocking 2 travel lanes, personal injury, a duration of an hour with a little radiator fluid and gas spill would be a Traffic Level 2, Haz level 0 incident.

Table 2. Example of Traffic Levels

Traffic 0	Minor incident not in a travel lane.
Traffic 1	Incident with injuries, one (1) travel lane blocked, and duration less than one (1) hour.
Traffic 2	Incident with injuries, two (2) or more travel lanes blocked, no major threat of fire, duration exceeds one (1) hour.
Traffic 3	Incident with injuries/fatalities, all travel lanes blocked (one direction), duration exceeds two (2) hours.
Traffic 4	Incident with injuries/fatalities, all travel lanes blocked (both directions); duration exceeds two (2) hours.

Table 3. Example of Hazardous Materials Release Levels

Haz 0	Minor passenger vehicle petroleum release and commercial vehicle petroleum releases of less than 10 gallons contained to roadway, no potential threat of fire.
Haz 1	Commercial vehicle petroleum spills between10 gallons and 50 gallons contained on blacktop, off the main roadway, not in an area of critical concern and where the first responders have the equipment and training to control the release and control of the scene.
Haz 2	Report of commercial vehicle petroleum release in excess of 50 gallons of petroleum products such as gasoline, diesel oil, fuel oil, etc.; or unconfirmed reports of chemical spills, leaking containers, process malfunction, crashes or fires producing irritating, corrosive, or flammable vapors or other hazardous conditions. These situations may be beyond the control of the local Fire Department and require the activation of a Department of Fire Services (DFS) Hazardous Materials (Hazmat) Response Team.
Haz 3	A report by the Senior Fire Official in charge of materials or conditions, which require the use of chemical protective clothing, the evacuation of areas and buildings adjacent to the incident or other extreme conditions necessitating

additional equipment and specially trained personnel. These are the most serious of all hazardous materials incidents. These incidents are beyond the capabilities of the DFS Hazardous Materials Response Team and require resources from State, Federal and/or private industry.

NOTE: Highest-ranking or Senior Fire Official determines if the incident is a Haz 1, Haz 2 or Haz 3 level.

Traffic incident response often must be handled by many disparate agencies, all having valid functions but different and sometimes conflicting priorities at the scene. The formalized TIM Program facilitates the interagency coordination necessary to ensure each agency is able to achieve their goal as part of a larger response effort. Table 4 depicts which agencies may be required to respond to various incident types. These incident levels provide for consistent and effective response to roadway incidents. The intent of the URM is to maintain flexibility for decision making, when activating a response level consistent with the nature of the incident. For example, a Disabled Motor Vehicle (DMV) does not warrant the response comparable to a Tractor Trailer Unit (TTU) rollover involving personal injury.

Each agency is responsible for developing their own response strategies relative to the incident levels previously described.

Table 4. Example Incident Agency Response Matrix

EXAMPLE: INCIDENT AGENCY RESPONSE MATRIX								
Agency/Level	**0**	**1**	**2**	**¾**	**H0**	**H1**	**H2**	**H3**
MassDOT	X	X	X	X	X	X	X	X
MSP		X	X	X	X	X	X	X
FIRE		X	X	X		X	X	X
EMS		X	X	X		X	X	X
TOW	X	X	X	X	X			
MassDEP						X	X	X
OCME				X				
MDPH						X	X	X
Regional HazMat Team							X	X

5.3. *Event Escalation Criteria*

The purpose of the criteria is to ensure designated senior staff sufficient flexibility to escalate an event's classification once notifications have been received and additional information regarding the event has been obtained. During a significant event (Level 2, 3 and 4), designated senior staff responsible for managing an event's response and mitigation may wish to escalate the event's initial classification in order to notify, mobilize and deploy greater resources for response, mitigation and recovery efforts. In most cases, event escalations will occur from a Level 3 to a Level 4 incident. However, designated senior staff may escalate an event at any level.

5.4. *Event Response and Deployment Procedures.*

Upon notification, appropriate personnel will respond to the affected area. The response elements include functions that will eliminate any identified hazard, mitigate its effects and protect the public, personnel, or property, and restore operations. Response and deployment includes those departments that can provide direct support or administrative support to responders. Communication is maintained with the HOC so that designated personnel can keep up to date on developing events and activate emergency operations or public information activities if necessary. The HOC also utilizes an electronic tool that activates automated traffic response plans, which displays instructions to motorists via electronic message boards, lane usage signals, and other traffic control devices.

Responsibility and authority for directing emergency response efforts rests with the Incident Commander and/or the State Police, working with MassDOT District personnel or designated staff, on scene. During an event, this team provides direction and control of response resources and

determines appropriate protective and accounting actions for personnel, patrons and/or property, including the deployment of additional resources from other MassDOT departments, including engineering, environmental services, and communications and electronics if necessary.

5.4.1 Safety Considerations

The HOC will maintain communications with all response agency dispatch centers to relay and share real-time incident information and summon additional assistance if, and as necessary, to respond to escalation of the original incident or secondary incidents that may result. Where cameras are available, the HOC will record CCTV coverage of Event Levels 2 through 4, which are detailed later in this manual. The HOC can also provide resources to emergency response agencies for the duration and removal of the incident, capable of issuing alerts to regional and state response agencies for closure of roadway(s), invoking plans to divert traffic away from the system, or contacting federal emergency and law enforcement agencies for technical and logistic assistance.

5.4.2 Initial Actions (HOC)

Upon notification, appropriate personnel will respond to the affected area. The response elements include functions that will eliminate any identified hazard, mitigate its effects and protect the public, personnel, or property, and restore operations. Response and deployment includes those departments that can provide direct support or administrative support to responders. Communication is maintained with the HOC so that designated personnel can keep up to date on developing events and activate emergency operations or public information activities if necessary. The HOC also activates automated traffic response plans, which displays instructions to motorists via electronic message boards, lane usage signals, and other traffic control devices.

The type and location of the incident will generally dictate which agency will fulfill the lead role under the incident command structure. Most incidents will transition incident command leadership several times as the response matures and the incident is mitigated. In general, as the first arriving authority, responsibility and authority for directing initial emergency response efforts rests with the State Police, working with the appropriate MassDOT District personnel or designated staff, on scene. Until relieved by an incident commander, this team provides direction and control of response resources and determines appropriate protective and accounting actions for personnel, patrons and/or property, including the deployment of additional resources from other departments, including engineering, environmental services, and communications and electronics if necessary.

The type and severity of the incident will dictate whether it is handled as a "Move It" or "Work It" scene. A Move It scene refers to moving the vehicles involved to a secondary location before processing the incident. A Work It scene involves an incident where the vehicles cannot be moved before the incident is processed.

If the scope of the incident requires processing without moving the involved vehicles, the minimal amount of roadway will be blocked to establish a safe area for responders to operate.

5.4.3 Mobilization of Assets to an Incident

An integral part of a successful quick clearance program is the rapid mobilization of the right assets needed to support response and recovery. Use of the incident command system and a standard

approach to incident management and communication will facilitate the mobilization of the desired assets to the appropriate location.

5.4.4 Response Procedures

The NIMS Incident Command System shall be used to manage every roadway incident occurring on Massachusetts' roadways that are the responsibility of the transportation agencies listed in this manual. This will support an effective, multi-agency response, integrated scene management and shortened incident durations. The following procedures and guidelines have been established to provide a common language by which all responding agencies can enhance their response and on-scene management activities.

5.4.4.1 Size Up

The First Responder must evaluate or "size up" the incident and immediately communicate the following information to their appropriate dispatch to update the MSP:

- Exact type and location of incident
- Number, types, and severity of injuries
- Existing threats such as fire, explosion, chemical spills, downed electrical wires
- Identification of trapped victims, location, and extrication needs.
- Severity of damage
- Necessity for evacuation or restriction of vehicular or pedestrian traffic
- Nature and number of resources required
- Estimated time to clear the incident
- Environmental threats

5.4.4.2 Incident Command Structure

The Incident Command System (ICS) is a widely-recognized approach to incident management. ICS establishes a unified organizational structure to coordinate interagency response efforts that is consistent with the National Incident Management System (NIMS). ICS is scalable in response to escalating incident hazards. In incidents involving multiple jurisdictions or multi-agency involvement, Unified Command (UC), an application of ICS, is used to allow for a single, collaborative management approach. Unified Command is based on shared authority that changes commanders as an incident progresses through different phases.

- The first responder to arrive on scene assumes incident command until a specialized agency arrives.
- For highway incidents, State Police are often the first on the scene, and the highest-ranking officer assumes incident command.
- The senior member at the scene shall assume IC duties. In the event that a fire, explosion, HazMat, or serious threat of fire, explosion, or HazMat is encountered, the responsibility for the "immediate scene" shall fall to the Senior Local Fire Department Official. State Police personnel should be aware that Incident Command shall be transferred back to the Department once the fire, threat of fire or Hazardous Material has been removed. From this point, State Police will remain IC until the roadway is cleared of debris, emergency vehicles and recovery begins

- Incident Commanders must continually re-assess the incident to ensure that the ICS is being utilized properly in response to changing incident conditions and hazards. When the scope or complexity warrants, the Incident Command structure will transition to a Unified Command to support agencies with different legal, geographic, and functional authorities and responsibilities to working together effectively without affecting individual agency authority, responsibility, or accountability.
- Safe procedures must be maintained for responders and highway patrons.

An Incident Commander is responsible for not only managing conditions at the scene, but also for managing conditions along the resulting queue. Incident Commanders should also:

- Explicitly establish and transfer command, as necessary.
- Establish overarching objectives consistent with the multiple goals of effective incident management (ensuring the safety of incident responders, reducing the potential of secondary incidents, and reducing congestion delay.)
- The incident commander must establish a lane closure pattern in coordination with other agencies as part of the initial actions. Opening and closing lanes should be frequently assessed to balance safety with the need to reduce congestion and secondary. All initial responders must be advised by radio and other means how and where to park to conform to the lane closure plan. Lead representatives from each agency must advise all additional responders including mutual aid how/where to park in conformance with this lane closure plan.
- Develop and issue assignments.
- Establish specific, measurable objectives for various incident management functional activities and direct efforts to attain established objectives.
- Effectively communicate information regarding the unique hazards and characteristics of the incident to dispatch and fellow responders.
- Document results.

As part of a Unified Command, designated agency representatives should jointly determine objectives, strategies, plans, and priorities and work together to execute integrated incident operations and maximize the use of assigned resources. Communications among responders should be managed in accordance with the incident command system.

5.4.4.3 Secondary Actions

Depending on the type and nature of the incident, secondary actions will typically consist of those activities undertaken by the HOC to support the safe response and recovery from an incident. HOC secondary actions may include:

- Identify the location of the nearest electronic message sign upstream from the incident to determine if it is within a reasonable distance and would support the incident scene.
- Activate automated response plans
- Modify real time traffic management system as needed
- Activate electronic message signs with message appropriate for the incident type and scope.
- Request traffic information to determine ECS level and need for page

5.5. *Event Recovery and Restoration Procedures*

Restoration of operations is achieved when hazards to life and property have been mitigated. Terminating an incident involves the process of restoring traffic flow to normal or close to normal conditions. An event may be declared terminated due to mitigation of the immediate hazard, but conditions in affected areas may not warrant cancellation of protective actions. Actions may need to be monitored to determine when reentry to previously restricted and/or evacuated areas is allowed. The deactivation of post-event activities, emergency support personnel and facilities will occur in an organized manner and promote a return to normal operations as soon as possible.

Emergency and support vehicles will clear from the incident scene as soon as it is safe to do so. Because the presence of emergency vehicles has an impact on traffic, administrative matters should not be completed while at the incident scene.

Some of the major activities in the incident termination phase include:

- Recovering the roadway from any damage caused by the incident;
- Removing temporary traffic control devices;
- Lifting alternate route or detour restrictions;
- Providing updated traveler information;
- Departure of all response vehicles and assets.

While the Incident Command structure will change as the scene matures and evolves, it is important that Unified Command is maintained until all assets have completed their tasks and the incident is cleared.

5.5.1 Quick Clearance.

The goal for all traffic incidents and emergencies is to achieve a safe, quick clearance as established by the Traffic Incident Task Force (see Chapter 4.0).

5.6. *Post Incident Actions*

Post incident actions include the resetting of response assets to pre-incident conditions and the review of available data and information to seek lessons learned.

5.6.1 Initial Lessons Learned

Following an incident, each agency should conduct a review of the situation and actions taken. Information gathered may only pertain to that individual agency's protocols or it may impact the methods and procedures used by other responding agencies. If the incident requires a formal After Action Review (AAR), the information from the internal agency review will be used to supplement the AAR process.

5.6.2 After Action Reviews

An After Action Review (AAR) may be conducted on incidents of any size and scope. Generally, a formal after action review will be convened for all incidents that are categorized as Event Level 3 or above. The purpose of the after action review, or hot wash, is to have a professional discussion regarding the actions taken during an event. The purpose is not to affix blame or criticize. Success

or failure is not graded. There will always be strengths to sustain and weaknesses to improve. The focus is on the performance activities as they occurred to determine what happened, why it happened, and how to sustain the strengths and improve on the weaknesses. An organization cannot improve without honest introspection on performance. It is not intended to cure all of the problems encountered, but to cure some and identify ways to avoid others in the future.

Response to traffic incidents combined with reviews and critiques can be an effective tool to identify lessons learned and can perform the instructional function of a drill and exercise. As such, it is recognized that an actual emergency, with a subsequent after action review can serve as a substitute for a simulated drill.

MassDOT seeks to design corrective action plans to implement based on lessons learned from training and exercises. As such, after every major incident which occurs on the Highway Division roadways, first responders will be invited to participate in an after action review, to be coordinated by the MassDOT TIM Program. The review will critique responses and provide lessons learned to the responding entities.

Appendix C contains the guidelines for conducting after action reviews of roadway incidents.

5.7. *Training and Exercises*

Following the 2006 update to the URM, the Traffic Incident Management Task Force (TIM TF) implemented a training program for responder agencies throughout the state. In addition, MassDOT and the TIM TF, in conjunction with other stakeholder agencies, has developed a drills and exercises program consistent with guidance issued by the Department of Homeland Security in its Homeland Security Exercise and Evaluation Program (HSEEP). On an ongoing basis, the TIM TF will conduct coordination meetings with other response organizations to maintain effective communications and information sharing regarding critical infrastructure.

It is the goal of MassDOT on an ongoing annual basis to conduct progressive exercise activities involving State Police, Fire, and other response organizations as appropriate. These annual exercises may include table top scenario driven discussions, an assessment drill of communication and notification protocols, a functional exercise that tests specific response functions in a limited simulated scenario, and/or a full scale exercise that requires the deployment of multiple resources to a simulated roadway condition. The MassDOT TIM program will also continue to assist the exercise activities of other jurisdictions.

5.8. *Duties and Responsibilities*

Responders play a critical role in the determination of the proper level of response and the initial incident management operations. The following duties and responsibilities are intended to coordinate actions between agencies. The roles and responsibilities outlined do not replace the internal plans and policies established by any of the responding agencies.

5.8.1 First on Scene

There are certain duties and responsibilities required of the First-On-Scene individual that are critical to initiating the appropriate response necessary to successfully manage an incident. This individual must:

- Initiate Communication of the Incident with the exact location. Give a brief description of the incident, route number, direction, town, exit number or mile marker, landmark, lanes that are blocked, and potential number of injured. This information is to be given using the initial SIZE UP Report format before getting out of the vehicle.
  Example: Two (2) car crash, I-495 Southbound, in Hopkinton, Exit 21. First travel and breakdown lanes closed. Personal injuries are unknown.
- Secure Scene. The First on Scene secures the scene by whatever means available (car, cones, etc.) to prevent further injury or property damage to the motoring public.
- Assume Incident Commander (IC) duties until relieved. Begin to initiate IC responsibilities until the appropriate IC agency arrives. The First on Scene will brief the situation consistent with NIMS Transfer of Command protocols.
- Personal safety. The first priority at any incident scene is the safety of responders.

5.8.1.1 Scene size up.

The initial scene size-up should consider the scene safety, actions that will be required to mitigate the incident, resources necessary, quick clearance strategies, and the impact on traffic. Size up or

evaluate the incident. The diversity of emergency response agencies requires a standard format for collecting and reporting incidents and immediately communicating the incident information.

5.8.1.2 Report.

Quick, accurate reporting to dispatch or the HOC will reduce overall clearance time and the likelihood of secondary accidents. Communicate Size Up. As detailed in section 5.4.4.1, this provides other responders with the information needed to facilitate their actions. Communicate the Size Up and assess the need for additional responders to the First on Scene's Communication Center by the fastest means possible.

> Example: Two (2) car crash, Route I-495 Southbound, Hopkinton, Exit 21, 3 people hurt, 1 unconscious. Extrication required. First travel and Breakdown lanes blocked. Fuel tanks are leaking. Both vehicles will require tow. Need State Police, Fire and EMS response.

5.8.2 Incident Commander (IC)

The IC is the individual(s) responsible for coordinating resources necessary to manage the incident and restore to pre-incident capacity quickly and efficiently. The IC responsibilities encompass all functional areas which include, but are not limited to scene safety, traffic control including detours, firefighting, medical care and extrications, notification to HOC, mitigation of environmental damage, media releases, vehicle removal, and state property damage assessment.

This individual(s) must:

- Coordinate incident activities to assure safe and quick clearance. Not to compromise safety, or the environment, but to restore capacity as quickly as possible. Consideration is made for the safety of all, the environment and the time of day (i.e. impending peak period) when establishing the mitigation plan.
- Establish Command Post (CP). To improve communication between agencies. CP should be easily identifiable.
- Notify agencies of Command Post location. IC shall insure that all agencies have been notified of the CP location.
- Form Command Staff. There are three important staff functions, which are the responsibility of the Incident Commander unless command staff positions are established.
  - Public information and media relations.
  - Maintaining liaison with assisting and cooperating agencies.
  - Ensuring safety.
- Coordinate update meetings for all agencies, meeting times should be established (i.e. every 15 minutes) to keep the clearance effort moving.
- Direct the establishment of a staging area for responding assets.
- Develop an Incident Action Plan (IAP). For simple incidents of short duration, the Incident Action Plan will be developed by the Incident Commander and communicated to subordinates in a verbal briefing to include:
  - Incident Objective(s)
  - Strategy (one or more)
  - Tactics
  - Assignments

Catastrophic incidents or incidents lasting long term will require a written IAP.

- Assess incident for additional response. Survey the scene and agency responders for equipment needs, equipment en-route, and equipment short falls. Short falls may require special efforts and time.
- Determine need for alternate route. The decision is based on expected incident duration, roadway, time of day, viability of an alternate route, etc.
- Prioritize work. Priorities of work are necessary for efficient mitigation.
- Identify staging areas for equipment. This reduces "clusters" and limits unnecessary exposure. Access/egress routes are easier to maintain.
- Assign tactical resources. Maintain control of resources (personnel and equipment) directly available to manage the incident.
- Ensure public information is disseminated. Media and the HOC should be informed of planned clearance and alternate routes. The incident commander should delegate a liaison or Public Information Officer (PIO) to manage and communicate with media personnel at the scene of a large scale event or when warranted. Schedule press releases/conferences and convey to media within sight of incident but not in actual action areas.
- Ensure interagency cooperation. Maximize experience, personnel and equipment to encourage concurrent activities of multiple agencies.
- Consult with each agency representative. Formulate next steps towards meeting incident goals and determine when it is appropriate to open the roadway. Conduct update briefings every 15 minutes or as needed to insure fluid motion of incident management.

5.8.3 Specific Disciplines

Response to roadway incidents requires a coordinated multi-disciplinary approach. Each responding and supporting agency has their own policies and procedures to follow. The intent of the following sections is to highlight the key functions and actions of the primary agencies involved.

5.8.3.1 State Police

In addition to the guidance listed below, Department of State Police General Order TRF-05, Division Commander's Orders #12-DFS-097 & #13-DFS-127 are included in Appendix D. State Police emergency responders shall:

- Perform First-on-Scene Duties. All personnel, when first arriving on the scene of a roadway crash should be prepared to provide a brief overview of the conditions encountered to the appropriate dispatcher using SIZE UP procedures. In most cases, this reflects the officer’s standard procedural practices, which allow him/her to access assistance and/or clear the roadway.
- Perform First Responder Duties. Since all officers are certified as "First Responders," these duties refer to the requirement that all officers provide basic medical care; i.e. CPR, first aid, until the arrival of more qualified EMS personnel.
- Secure Scene. The first responding officer will immediately take charge and secure the scene pending the arrival of the assigned patrol or supervisory personnel to whom the responsibility will be surrendered until the completion of the operation.

- Responsibility for the "immediate scene" The senior member at the scene shall assume IC duties. In the event that a fire, explosion, HazMat, or serious threat of fire, explosion, or HazMat is encountered, the responsibility for the “immediate scene” shall fall to the Senior Local Fire Department Official. State Police personnel should be aware that Incident Command shall be transferred back to the Department once the fire, threat of fire or Hazardous Material has been removed. From this point, State Police will remain IC until the roadway is cleared of debris, emergency vehicles and recovery begins.
- Control Scene Access/Egress. In keeping with our responsibility for the “over all” scene, officers are responsible for controlling access and egress to the incident scene. This may include providing escorts for emergency vehicles and equipment necessary for clearing the scene of the injured and any obstructions or hazards.
- Closing of the roadway or portion of the roadway at critical points through the establishment of fixed barriers, utilizing marked police vehicles, arrow boards, traffic cones, construction barrels, or any other type of necessary equipment.
- Implement Alternate Route. When necessary to redirect the flow of traffic from the incident, it will be the responsibility of Law Enforcement in cooperation with the Highway Division. The Highway Division shall activate the alternate route plans. These plans will specify the exact roads and necessary manpower required to adequately execute the alternate routes. State Police personnel should be reminded that when alternate routing is initiated, which may affect local communities, additional manpower may be needed to augment the local police department at strategic locations to safely move large volumes of traffic within the local community. Liaison or direct radio communication should be established with local police agencies surrounding the affected highway in order to coordinate detour routes, request personnel to assist with road/ramp closures, and provide timely situational awareness updates.
- Provide Public Information Coordinator. In order to facilitate the movement of traffic around and away from the incident, the media should be contacted. The HOC is to be informed to allow for VMS activation. As such, it will be the responsibility of the State Police to request assistance from the media, as well as handle media inquiries and access to the incident scene, where appropriate. The State Police Public Relations Section will be required to dispatch qualified personnel to the scene of major incidents or provide technical support to on-scene personnel.
- Conduct Incident Investigation. In order to determine responsibility and causes of incidents, a major duty of State Police personnel is incident investigation. The initial responding officer, an officer assigned by the incident commander or the assigned patrol of jurisdiction will complete any and all reports required pursuant to established departmental policy and procedure. In many instances, proper incident investigation will necessarily require the State Police to furnish technical support personnel, such as members of the Commercial Motor Vehicle Enforcement Section (CVES), Collision Analysis and Reconstruction Section (CARS), Crime Scene Services (CSS) Section and any other personnel necessary to conduct a full investigation. All State Police personnel involved shall be available for any after-action review of the incident, which may be called and conducted by the Traffic Incident Review Team. Such personnel should be prepared to discuss their roles and actions during the management of the entire incident. A full report will be completed by the principle agency and those other agencies that participated in the response and/or were affected by the incident. Further, each principle agency shall conduct an after-action review. If the investigation involves a death, the State Police Detective Unit (SPDU) of the jurisdiction should be notified.

- Towing and Recovery Contractors. The State Police shall request, direct and coordinate the services of towing and recovery contractors from a pre-designated availability list based on the location of the incident and having the best-qualified personnel and equipment to handle the incident appropriately.
- Assume IC duties when appropriate. As described in the Incident Commander Section.
- Support Unified Command as necessary. Paramount to the successful management of any critical incident is cooperation among all of the agencies participating in the operation. State Police personnel should be aware that Incident Command might be rotated with an official of another agency (such as Fire or MassDOT).

5.8.3.2 Fire

The highest ranking or Senior Fire official on the scene, or designee, shall be the Fire IC component of a unified command whenever there is personal injury, a HazMat incident, fire, explosion, or serious potential for fire or explosion. The highest-ranking Fire official will have functional responsibility to provide oversight of emergency medical services and extrication in those jurisdictions in which the fire department operates the primary emergency ambulance service.

Fire responders shall:

- Perform First-On-Scene Duties. The First-On-Scene duties are Size Up and assessment of the incident. Since no two incidents are identical, it is impossible to detail a response for every perceived scenario. However, there are similarities in incidents from the perspective of strategies in command, control, management and approach. The objectives of initial assessment are to identify the risks to life, public health and safety, the environment, property and to establish initial control zones and location for the command post. In order to identify risks to life (for victims as well as for responders) it is necessary to identify the nature of the problem. Are there people injured and/or trapped? Is there a fire or a potential for fire and/or explosion? Are there hazardous materials involved? If so, what are they? These questions need to be answered accurately and quickly by first arriving companies in order to safely handle roadway incidents.
- Perform First Responder Duties.
  - Perform assessment and Size Up.
  - Identify the problem.
  - Recognize the presence or absence of hazardous materials.
  - Identify the HazMat, if it is present.
  - Secure the area.
  - Mitigate the problem(s) and/or call for appropriate assistance.
  - Provide emergency medical aid to the injured.
  - Provide the IC with appropriate information
- Rescue. Rescue is the first priority in every incident. Roadway incidents in which lives are threatened by trauma, fire, or hazardous materials must be handled expeditiously and safely. The safety of the emergency response personnel should be given the highest consideration.

  Factors that must be considered are:
  - Nature of incident.
  - Availability of an adequate number of personnel properly equipped.

- Number of victims and their condition.
- Time needed to complete rescue.
- Tools and equipment needed to effect rescue.
- Containment of fire threat.

- Protect Exposure. Exposure protection involves, in the following priority:
  1. Protecting lives.
  2. Protecting the environment by providing confinement and containment of products that are environmentally harmful.
  3. Protecting property not yet involved in but threatened by an expanding incident.

Protecting lives is the single most important exposure consideration. Ideally, this is accomplished by evacuation; however, evacuation is not always possible. People may need to be protected in place. The Safety Officer shall establish safe stand-off distances from any hazardous exposures and make recommendations to law enforcement regarding lane and road closures.

Environmental protection is the next most important exposure consideration. All released materials and run-off needs to be confined, contained, or held until environmental impact can be determined.

Exposed property may be protected by eliminating the threat (for example, by extinguishing the fire) or by diverting it (diking or channeling a leak or spill) to a more secure location.

- Extinguish Fire. If the incident involves a fire it should be extinguished by the most appropriate method i.e. direct application of water or specialized foam solutions or by elimination of the accelerant as in the case of a fire fed from a pressurized gas line (shutting off the supply line). Runoff from streams applied to hazardous materials should be confined until its content can be analyzed.
- Limit Oil Hazardous Material (OHM) Threat.
  - CONFINEMENT. Confinement is a defensive action. Confinement is the process of controlling the flow of a spill or leak of hazardous materials and/or controlling the flow of run-off and capturing it at a specified location. The objectives of confinement are to capture and recover materials to reduce to a minimum the exposure to people, the environment, and to other property.
  - CONTAINMENT. Containment is an offensive action. Containment is the act of stopping further release of a material from its container during a HazMat operation. OHM is an exception where time sensitivity must be considered and fire personnel intervention is usually required. HazMat technicians generally do containment, however, fire department personnel may be called upon to support and protect those technicians performing containment procedures.
  - Perform RECOVERY. Recovery includes hazard removal and clean up and is one of the last tasks to be finished prior to returning the scene to its normal state. Recovery is not generally done by fire department personnel, however, fire department personnel may be called upon to provide hose streams to cool certain materials, to help maintain scene control, or to assist with salvage operations. It is extremely important for fire department personnel to oversee safety during recovery operations.
- Assume IC duties when appropriate. As described in the Incident Commander Section.

- Support unified command as necessary. Fire department personnel should be aware that major roadway incidents are multi-jurisdictional and therefore require the cooperation of all involved parties. We must all remember that the ultimate objective of all responding agencies is to restore normal traffic flow as quickly and as safely as possible. The success or failure of the management of these types of incidents will depend upon such cooperation.

5.8.3.3 Emergency Medical Services (EMS)

The primary duties of the Emergency Medical Services system are to provide medical assistance and coordination at roadway traffic crashes and to provide medical assessments, triage, treatment and transportation to sick or injured persons affected by the incident.

- Perform First-On-Scene Duties. When EMS personnel are first on scene at roadway related crashes, they should perform the duties identified in this manual under "First-On-Scene". These duties are:
  - Initiate communication of crash with exact location.
  - Size up or evaluate the incident using the format of the URM Form 1.
  - Communicate size up.
  - Secure scene.
  - Assume IC duties until relieved.
- Coordinate EMS Activities and Resources. The Emergency Medical Services (EMS) system functions as the overall medical coordination and medical support group to roadway related traffic incidents. The senior EMS official shall coordinate EMS activities with the IC.
- EMS responders may be members of local police or fire departments or be part of third service municipal agencies. They may also represent a private sector ambulance service functioning as the municipally designated emergency ambulance service.
- Factors which must be considered:
  - Active or potential hazards;
  - Availability of properly trained and equipped personnel;
  - Number of injured;
  - Medical conditions of injured;
  - Time needed to assess and treat the injured;
  - Environmental, weather and geographical conditions;
  - Availability of resources; and
  - Unique and unusual circumstances.

- Assess Needs for Additional EMS Resources. It is essential that an assessment of the immediate and ongoing needs of the EMS system be identified and anticipated. Requests for additional ambulances, EMS personnel and specialized resources must be initiated early in order to maximize their benefit.
- Helicopter - Medical Transport Air medical transportation utilizing helicopters should be considered in any incident involving a life threatening injury in which a patient could benefit from rapid transportation to a specialty hospital. After consultation with the Incident Commander, this resource should be activated via agency dispatcher, or EMS Regional C-MED centers. Landing zones for medical helicopters should be coordinated with State and local police

for scene safety. Minimizing the disruption of traffic flow must be balanced with providing the most effective and timely medical transportation and emergency treatment options to patients.

- Triage the Sick and Injured. Once the relative safety of the scene has been determined, a rapid medical assessment of those involved in the incident must be undertaken. Sick and injured persons must be identified and sorted or triaged according to the severity of their medical conditions the use of "Triage Tags" to categorize the injured is beneficial in those incidents involving a significant number of sick or injured.
- Treat the Sick and Injured. All Emergency Medical Technicians (EMTs) can provide basic patient assessment, triage, and treatment and transport functions. EMTs Certified at the Intermediate or Paramedic levels have advanced training in patient assessment and medical care. EMTs certified at these advanced levels can provide invasive medical care that includes intravenous fluid replacement and advanced airway procedures. Paramedics are capable of administering a limited regime of therapeutic drugs and are trained in the use of cardiac monitor/defibrillator units.
- Extricate the Injured. EMS personnel frequently respond to roadway traffic incidents involving injured and entrapped persons. EMTs must ensure scene safety, gain access to the injured and rapidly assess and treat life threatening illnesses and injuries. Patients must be protected and packaged, their injuries immobilized, if indicated, removed to safety and prepared for transport to medical facilities.

When extrication of the injured and rescue activities are required, coordination between Fire, EMS and Law Enforcement officials is essential.

- Transport the Sick and Injured. The sick and injured should be transported to the nearest appropriate medical facilities using establish Point-of-Entry practices and protocols.

Any incident involving significant number of patients requires the activation of Multiple Casualty Incident (MCI) procedures. Distribution of patients to the nearest hospitals must be coordinated so as not to overwhelm receiving facilities.

- Provide Medical Support to Response Personnel. EMS personnel provide medical consultation, monitoring and emergency treatment to response personnel. Specific medical monitoring is provided to HazMat Team entry personnel before and after entry into an active hazardous area.
- Determine the Need for the M.E. The determination to request a response from the Office of Chief Medical Examiner is based on the recognition that an obviously dead body is present at a roadway incident. Emergency Medical Technicians (EMTs) must follow rigid guidelines to determine if Cardiopulmonary Resuscitation (CPR) is indicated. Recognizing the presence of a dead body and the decision not to initiate CPR should be based on one or more of the following criteria from DPH/OEMS regulations:
    1. Decapitation;
    2. Abdominal or thoracic transection;
    3. Incineration (100% third degree burns);
    4. Catastrophic multi-system blunt trauma from major crush injuries;
    5. Recognition that the number seriously ill or injured overwhelms existing EMS resources.

- Multiple Casualties Incident (MCI) condition is declared by senior EMS officials on-scene.

- Assume IC duties when appropriate. As described in the incident commander section.
- Support Unified Command as necessary. Paramount to the successful management of any multi-jurisdictional roadway traffic incident is the cooperation among participating agencies. Under the Unified Command Structure, Senior EMS officials participate in the development of the incident action plan and coordinate their activities with the Incident Commander.

5.8.3.4 Highway Division

- Perform First-On-Scene Duties. As defined in section 5.8.1
- Provide Traffic Control Devices. MassDOT will provide VMS, cones, arrow boards and other devices as necessary to safely protect the scene and safely detour traffic around the incident.
- Assist MSP to Implement Traffic Management Strategies. This entails identifying the need for an alternate route, developing the route if not pre-planned, and assisting in implementation by providing arrow boards, VMS, cones and other traffic control devices coordinated with the HOC
- Initiate containment of petroleum release. Using available means to stem or reduce the flow of releases (petroleum products) and prevent access to catch basins.
- Provide limited absorbent material for diking of releases of oil and hazardous material releases to curtail migration to catch basins and other sensitive receptors. Passenger vehicle releases will be drummed, transported and disposed of. Commercial vehicle releases greater than 10 gallons will be drummed, transported and disposed of under the direction of MassDEP.
- Provide heavy equipment. Any equipment deemed necessary to facilitate a speedy clearance will be provided to support the IC.
- Debris Clean Up. Every effort shall be made to assist the tow company with cleanup of debris (vehicle parts and glass) including clean up materials used to clean small incident spills. The debris and clean up materials are removed from the scene by the tow company or cleanup contractor as appropriate.
- Respond to Releases of Medical Waste, or Unknown Hazardous Materials. All wastes encountered on MassDOT highways/right-of-ways, must be classified as “Unknown” until attempts to identify it have been concluded. All medical waste is to be considered infectious at all times. MassDOT will respond to drum or otherwise secure for identification as infectious or non-infectious waste. Arrange for transport, temporary storage, or disposal coordination with MDPH. Upon discovery of drums or other containers of unknown oil or hazardous materials, the principle roadway agency will notify MassDEP for identification and/or disposal options. MassDOT employees should refer to SOP ENV-01-25-1-000 for specific guidance.
- Notify MEMA of incidents. MassDOT will notify MEMA of Traffic Level 2-4 and Haz 2-3 Incidents.
- Support Unified Command as necessary. MassDOT Responders support the UC/IC(s) by whatever means are available (manpower, equipment, etc.) to clear the incident and restore capacity. Be prepared to serve as a technical advisor to the Incident Commander at incidents involving serious bridge or tunnel damage or similar damage threatening to close a facility for a significant amount of time.

5.8.3.5 HAP/IRO/ESP

- Perform emergency services and motorist assistance at the scene. Perform Emergency Services such as: Securing scene, HOC incident notification, fire containment, first response HazMat duties, Basic Life Support, motorist assistance and such other incident management procedures

as may be required. Upon arrival of MSP, Fire, EMS, personnel provide situation briefing and update.

- Rejoin the queue and perform incident management services as required. After the situation briefing, the Incident Commander will make a determination, that the HAP/IRO/ESP skills and equipment are no longer needed at the scene. The HAP/IRO/ESP vehicle will then return to patrol orienting on congestion created by the primary incident, providing service for any secondary or other incidents that may occur.
- Support Unified Command as necessary. Provides the IC or UC with other assistance, as needed utilizing the skills and equipment of the HAP/IRO/ESP.

5.8.3.6 Department of Environmental Protection (DEP)

- Set clean-up goals to open roadway. MassDEP will evaluate release area and conditions and will make every effort to prioritize immediate actions that will facilitate opening of the roadway.
- Assess environmental threat. MassDEP will assist with the identification of chemical(s) present (if possible), the likely receptors, sensitive resource area impacts, and will try to identify potential threats to public health, safety, welfare and the environment.
- Support fire departments with Oil and Hazardous Material (OHM) releases. With the protection of public safety and the environment paramount, MassDEP will support the Fire Department with implementation of release mitigation measures and/or providing suggestions for booming of roadways and storm drains, collection of firewater, chemical plume migration pathways also, suggestions for safe evacuation zones and other support as necessary.
- Support Unified Command as necessary. MassDEP staff is specially trained and equipped to respond to releases and threats of release of oil and hazardous materials. Staff will provide assistance to the UC/IC relative to chemical hazards present, identification of likely receptors, potential sensitive resource area impacts, and possible effects on and threats to human and environmental receptors.
- Contact other applicable state and federal officials. MassDEP will notify EPA and/or US Coast Guard, Fish & Wildlife or other applicable agencies.
- Contact owners and/or operators of public water supplies, if the potential to contaminate drinking water source is determined to exist.
- Address potential public drinking water supply issues. Once notified of the incident, MassDEP will evaluate the threats posed by the incident to drinking water sources in the vicinity and notify the local officials and the public water supply owners/operators accordingly. If it is determined that there are actions necessary to reduce risk of exposure to the release, including the shutdown of the supply, MassDEP will make that determination in conjunction with MDPH and local officials.
- Address potentially responsible party issues and cleanup issue. Consistent with statutory requirements of Ch. 21E and the use of state contractors, MassDEP will identify, provide assistance and set reasonable timeframes for all Potentially Responsible Parties (PRPs) to ensure a timely cleanup occurs. If a PRP is unable or unwilling to hire a contractor, MassDEP will mobilize its contractors and supervise and direct all cleanup activities through completion.
- Direct cleanup of OHM. MassDEP approves all Immediate Response Actions that are taken to respond to a release in accordance with the Massachusetts Contingency Plan (MCP). This is a specific oral approval and is generally given to a contractor or Licensed Site Professional (LSP) via telephone. If MassDEP is on-scene; staff will direct the clean-up activities. If MassDEP is not on-scene, variation from specific approval will require formal (oral) approval from MassDEP

and written log notation and follow-up. MassDEP staff is available to assist other agencies upon request.

5.8.3.7 Towing

- Assist Police/Fire vehicle removal. Tow personnel are specially trained and equipped to handle most vehicle recovery situations. Working closely with the UC/IC, all vehicles and debris shall be reasonably removed from the roadway by the towing company or cleanup contractor as appropriate.
- Remove Debris. Wreckage, debris and clean-up materials used to clean-up small incidental spills are removed by the towing company or cleanup contractor as appropriate. There will be times when the best decision is to push vehicle and/or cargo off the roadway and return after a designated time period in the best interest of responder and motorist safety. Tow company must be licensed to transport petroleum soaked absorbent material (See Appendix E, Towing Company Management of Fuel and Oil Contaminated Debris From Vehicle Accidents).
- Tow personnel provide professional advice and equipment to the IC or UC.

5.8.3.8 Department of Public Health (DPH)

The DPH Bureau of Environmental Health shall:

- Provide technical assistance to state and local governments. Concerning the impact of a hazardous materials spill on the general public, the Bureau of Environmental Health (BEH) would consult with local health officials concerning the re-opening of buildings and/or water supplies contaminated by a traffic hazardous material spill.
- Identify medical waste as infectious/noninfectious. All medical waste as defined in 105 CMR 480.000, or as amended, Minimum Requirements for the Management of Medical or Biological Waste – State Sanitary Code Chapter VIII) must be handled as if it is infectious. MDPH shall provide assistance in the determination as to whether the waste is categorized as regulated medical waste for the purpose of disposal. This determination can generally be made over the telephone if photographs of the material are transmitted to MDPH.
- Assist with disposal options. There are two disposal options. If it is non-regulated medical waste, it can be disposed of as regular municipal solid waste. If the waste is determined to be regulated medical waste it must be treated and disposed in accordance with 105 CMR 480.000, or as amended. Small amounts of regulated medical waste, one 55-gallon drum or less will be brought back to a secure location for temporary storage until disposal. Larger amounts of regulated medical waste will be packaged or secured on site for later removal. Mass DEP will coordinate contractors for disposal of regulated medical waste.
- Respond to incidents involving food and assist with disposal options. The Food Protection Program (FPP) in BEH has the authority to order the destruction of unsafe and unwholesome food products. When these products are involved in a roadway incident or other perils, FPP will assess their safety and wholesomeness and determine the disposition of these products. Working through the State Police, FPP may place a verbal embargo on all products involved in the incident. Products that are contaminated by soil; fuel, smoke and water are generally not salvageable and can be disposed of from the incident scene under the direction of FPP. Other products should be brought back under embargo to the towing company's yard or to a consignee for evaluation by FPP.

- Responding to traffic incidents involving radioactive materials. Traffic incidents may involve the transport of radioactive waste, radiopharmaceuticals, or other radioactive materials. The presence of the radiation "trefoil" and/or related Department of Transportation (DOT) packaging/manifest information may identify such materials as radioactive. The DPH Nuclear Incident Advisory Team (NIAT) is available to respond 24/7/365. The NIAT may be reached through MEMA, Massachusetts State Police, or activated during business hours at the DPH Radiation Control Program's offices. NIAT has the capability to assist in accident conditions/consequence assessment; provide protective action recommendations that reduce exposure to first responders/members of the general public; and provide protective action recommendations to reduce environmental contamination.
- Coordinate with local Boards of Health as necessary.

The DPH Bureau of Health Care Safety and Quality:

- Coordinate with the Office of Preparedness and Emergency Management at MDPH to support the Emergency Medical Services System role in response to roadway traffic accidents.
- In addition, OEMS as a member of the Traffic Incident Review Team will participate in after action reviews held subsequent to any major traffic incident. The focus of the OEMS involvement is to improve the coordination and quality of emergency medical care delivered to sick or injured persons affected by roadway traffic incidents.
- Respond to incidents involving Drugs or Medical Devices and assist with disposal options.
- The Drug Control Program has the authority to embargo and order the destruction of adulterated or misbranded drugs or medical devices. When these products are involved in a roadway incident or other perils, DCP will assess whether they are suspected of being adulterated (e.g., tainted, contaminated) or misbranded and determine their disposition. Working through the State Police, DCP may place a verbal embargo on all products involved in the incident. Products that are contaminated by soil, fuel, smoke or water are generally not salvageable and can be disposed of from the incident scene under the direction of DCP. Other products should be brought back under embargo to the towing company's yard or to a consignee for evaluation by DCP.

5.8.3.9 Office of the Chief Medical Examiner (OCME)

The Office of the Chief Medical Examiner provides a system for conducting death investigation services in the Commonwealth. The OCME will dispatch a representative for any incident resulting in a death that falls under their jurisdiction. OCME response will be coordinated with the on-scene Incident Commander to ensure a timely response.

5.8.3.10 Local Department of Public Works (DPW)

DPW representatives will generally fulfill roles similar to those describe for on-scene DOT personnel in section 5.8.3.4. Depending on the location of the incident or the availability of resources, local departments of public works may be requested to support traffic incident response and recovery.

5.8.3.11 Local Police

Local police assets may be required to supplement or replace State Police personnel.

5.8.3.12 Highway Operations Center (HOC)

The Highway Operations Center manages roadway conditions and incident monitoring system, various automated roadway operating systems, and disseminates information on roadway conditions and incidents to all elements of MassDOT and external agencies. The HOC receives and disseminates information to support incident response. The HOC creates a common operating picture and provides real time situational awareness to other transportation and public safety agencies in order to cooperatively respond to any threat to the transportation system.

5.8.3.13 Department of Conservation and Recreation (DCR)

- Performs First-On-Scene Duties on DCR Parkways
- Provide Traffic Control Devices. DCR will provide VMS, cones, arrow boards and other devices as necessary to safely protect the scene and safely detour traffic around the incident on DCR Parkways.
- Debris Cleanup. Every effort shall be made to assist the tow company with cleanup of debris (vehicle parts and glass) including cleanup materials used to clean small incident spills on DCR Parkways. The debris and cleanup materials are removed from the scene by the tow company or cleanup contractor as appropriate.
- Notify MEMA of incidents. DCR will notify MEMA on Traffic Level 1-4 and Haz 0-3 Incidents.
- Support Unified Command as necessary. DCR Responders support the UC/IC(s) by whatever means is available (manpower, equipment, etc.) to clear the incident and restore capacity on DCR Parkways. Be prepared to serve as a technical advisor to the Incident Commander at incidents involving serious Parkway damage or similar damage threatening to close a DCR facility for a significant amount of time.

5.8.3.14 Media

Disseminate accurate information to public. Traffic media are responsible for making notifications to the general public of roadway incidents via broadcast, or other delivery systems. Details required by media include incident type, lane closures, detours, and the estimated duration of an incident. When possible, the media should communicate the extent of the traffic impact of an incident to the IC through the State Police and/or MassDOT Public Affairs Offices.
Support Unified Command as necessary. Media supports the IC or UC through accurate traffic reports to the motoring public. These reports should provide suggested alternate routes and other pertinent information necessary to permit travel decisions to be made.

5.9. *Interagency Cooperation*

The successful implementation and management of the traffic incident management program is dependent on the level of cooperation between responding and supporting agencies. Formal and informal interagency agreements can be established to facilitate operational coordination and the sharing of resources. On-scene, the establishment of a Unified Command facilitates coordination and communication between agencies. Under the auspices of interagency cooperation, the following categories may be addressed.

5.9.1 Safe and Quick Clearance.

All agencies and supporting organizations must agree to support and abide by the concept of a safe and quick clearance approach to traffic incidents and events.

5.9.2 Extrication.

Vehicle extrication is normally conducted by the fire service. Non-fire service personnel may be asked to support fire responders with the extrication process.

5.9.3 Hazardous Materials Releases.

Incidents involving hazardous materials require special considerations and handling. All entities must follow the basic protocols established in law and practice when addressing hazardous materials incidents.

5.9.4 Escort Needs.

Recognizing that not all agencies, organizations and contractors that must respond to an incident have vehicles equipped with emergency lighting and/or sound, other agencies, such as the State or local police and responding fire department may be tasked with providing an escort to facilitate rapid access to the incident area.

5.9.5 Communications Protocols.

Following the precepts of the National Incident Management System, all agencies should communicate using common language and avoid the use of codes or jargon.

5.9.6 Personal Protective Equipment.

All responding agencies and personnel must adhere to common protocols for personal protective equipment as appropriate for the situation. In addition to situation appropriate protective items, all personnel, excluding police officers engaged in certain law enforcement roles and firefighters when they are exposed to flame, fire, high heat or hazardous materials; or when they are exposed to hazardous conditions where the use of such apparel may increase the risk of injury to firefighter personnel.

5.9.7 Road and Bridge Closures and Evacuations.

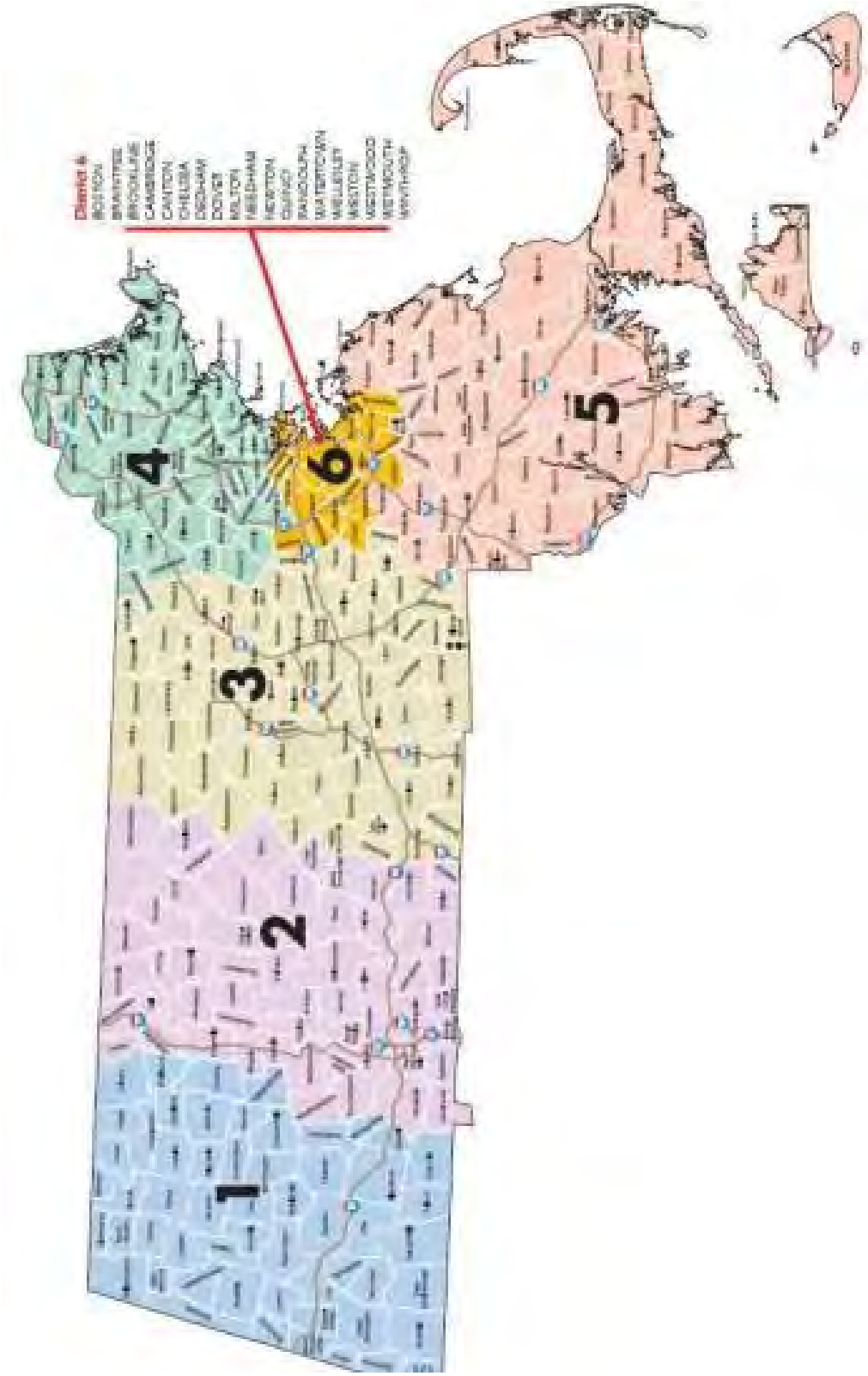
A road or bridge may be closed due to existing or impending weather conditions, surface conditions, or a vehicle accident of such a scope and magnitude that travel through the area is not safe. MassDOT field personnel and the District Highway Director, working in concert with law enforcement, are authorized to close a facility in the interest of on scene safety. The decision to close a road or bridge must be communicated to the HOC to facilitate notification to impacted communities and, as appropriate, other states.

Appendix A: Definitions

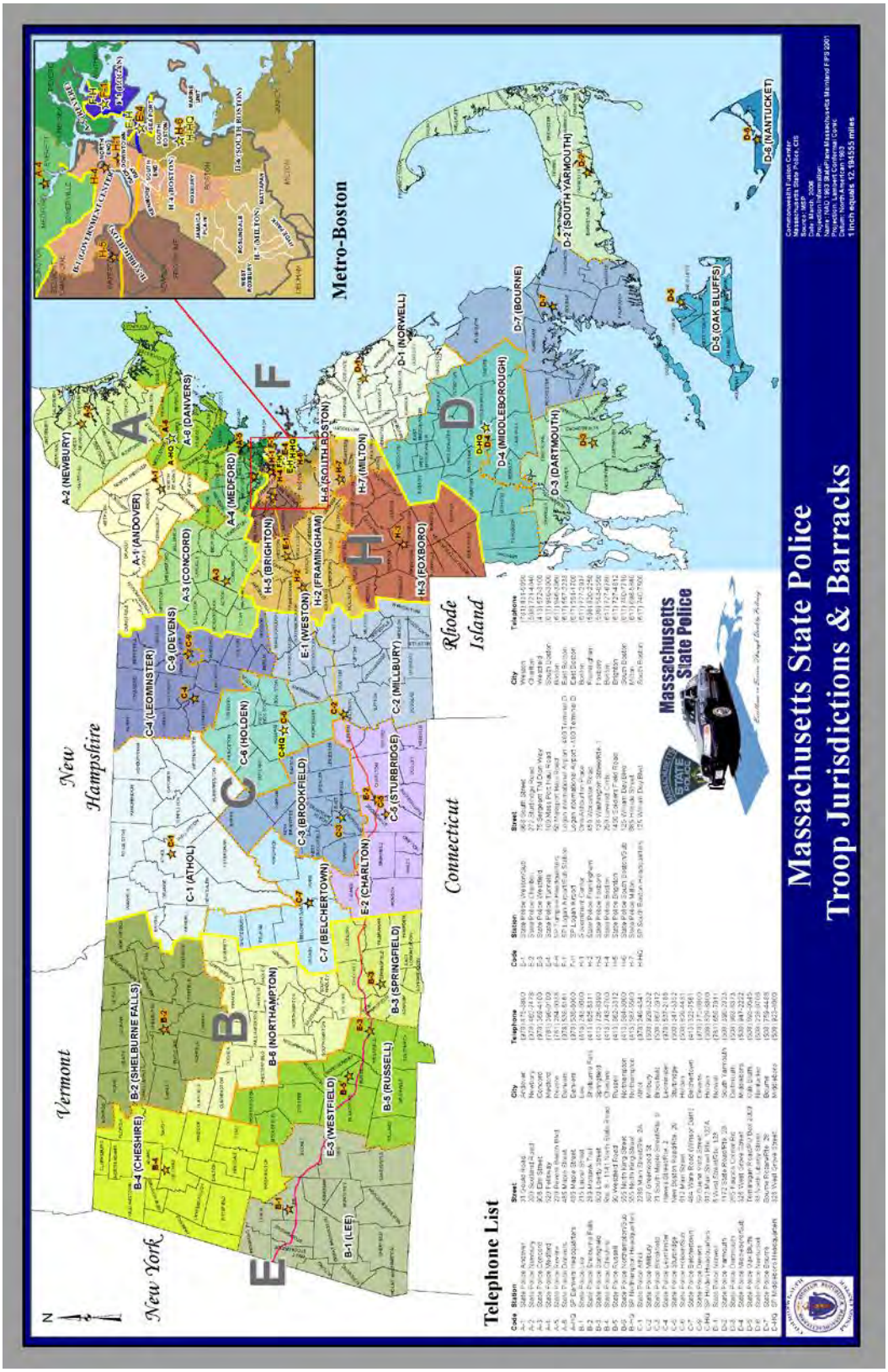
AAR	After Action Review
BEH	Bureau of Environmental Health
CARS	Collision Analysis and Reconstruction Section
CCTV	Closed Circuit Video Equipment
CFR	Code of Federal Regulations
CP	Command Post
CSS	Crime Scene Services
CVES	Commercial Vehicle Enforcement Section
DCR	Department of Conservation and Recreation
DEP	Department of Environmental Protection
DFS	Department of Fire Services
DHS	Department of Homeland Security
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
EMP	Emergency Management Plan
EMS	Emergency Medical Service
FHWA	Federal Highway Administration
HAP	Highway Assistance Patrol
HOC	Highway Operations Center
HSEEP	Homeland Security Exercise and Evaluation Program
IAP	Incident Action Plan
IC	Incident Commander
ICS	Incident Command System
INTF	Interagency Notification Task Force
IRO	Incident Response Operator
MassDOT	Massachusetts Department of Transportation
MDPH	Massachusetts Department of Public Health
MGL	Massachusetts General Law
MSP	Massachusetts State Police
NIMS	National Incident Management System
NUG	National Unified Goal for Traffic Incident Management
NTAS	National Terrorism Advisory System
OCME	Office of the Chief Medical Examiner
OEMS	Office of Emergency Medical Services
OHM	Oil Hazardous Materials
PRP	Potentially Responsible Party
SPDU	State Police Detective Unit
TIM	Traffic Incident Management
UC	Unified Command
URM	Unified Response Manual
VMS	Variable Message Sign

Appendix B: Maps

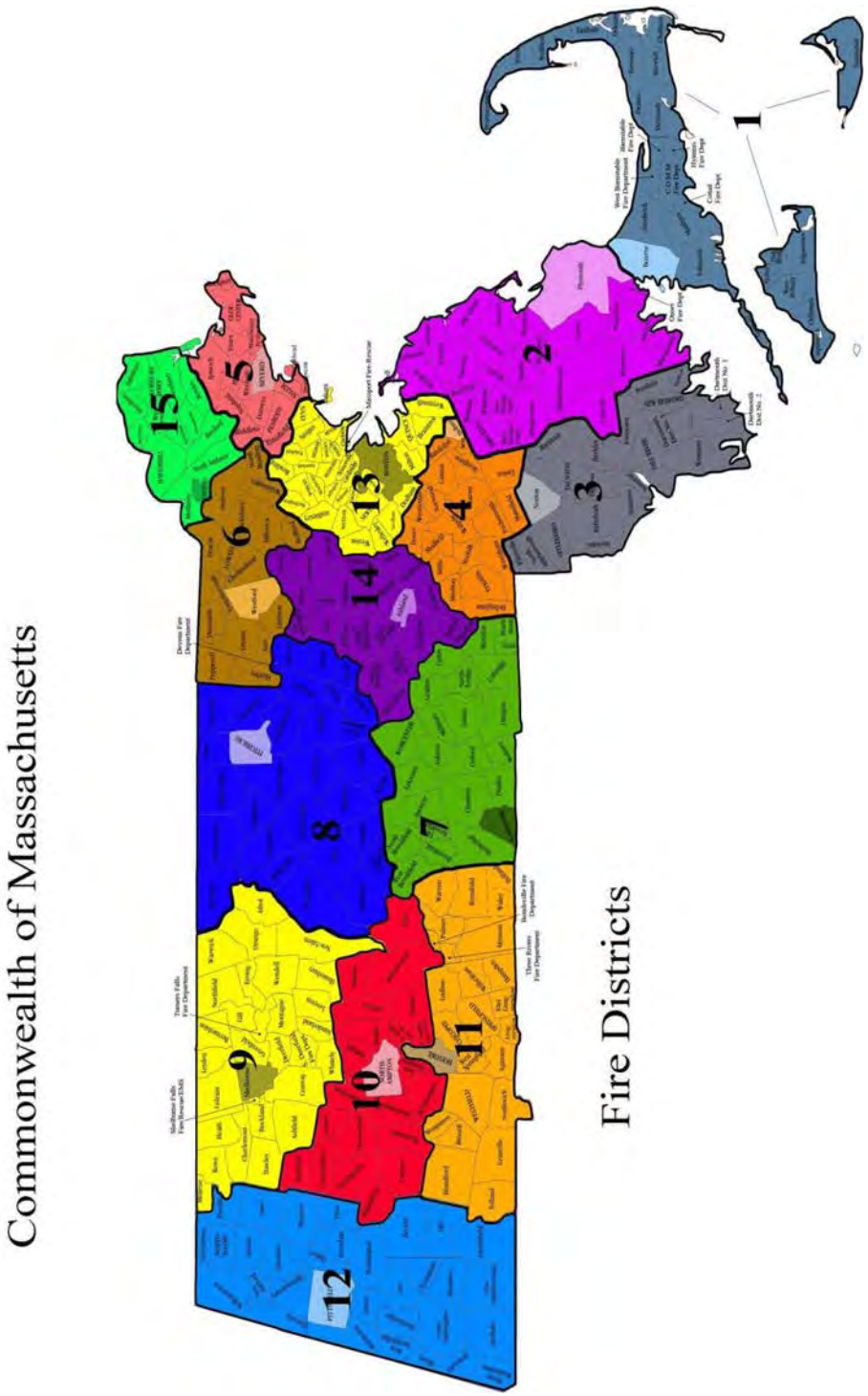
MassDOT-Highway Division Districts



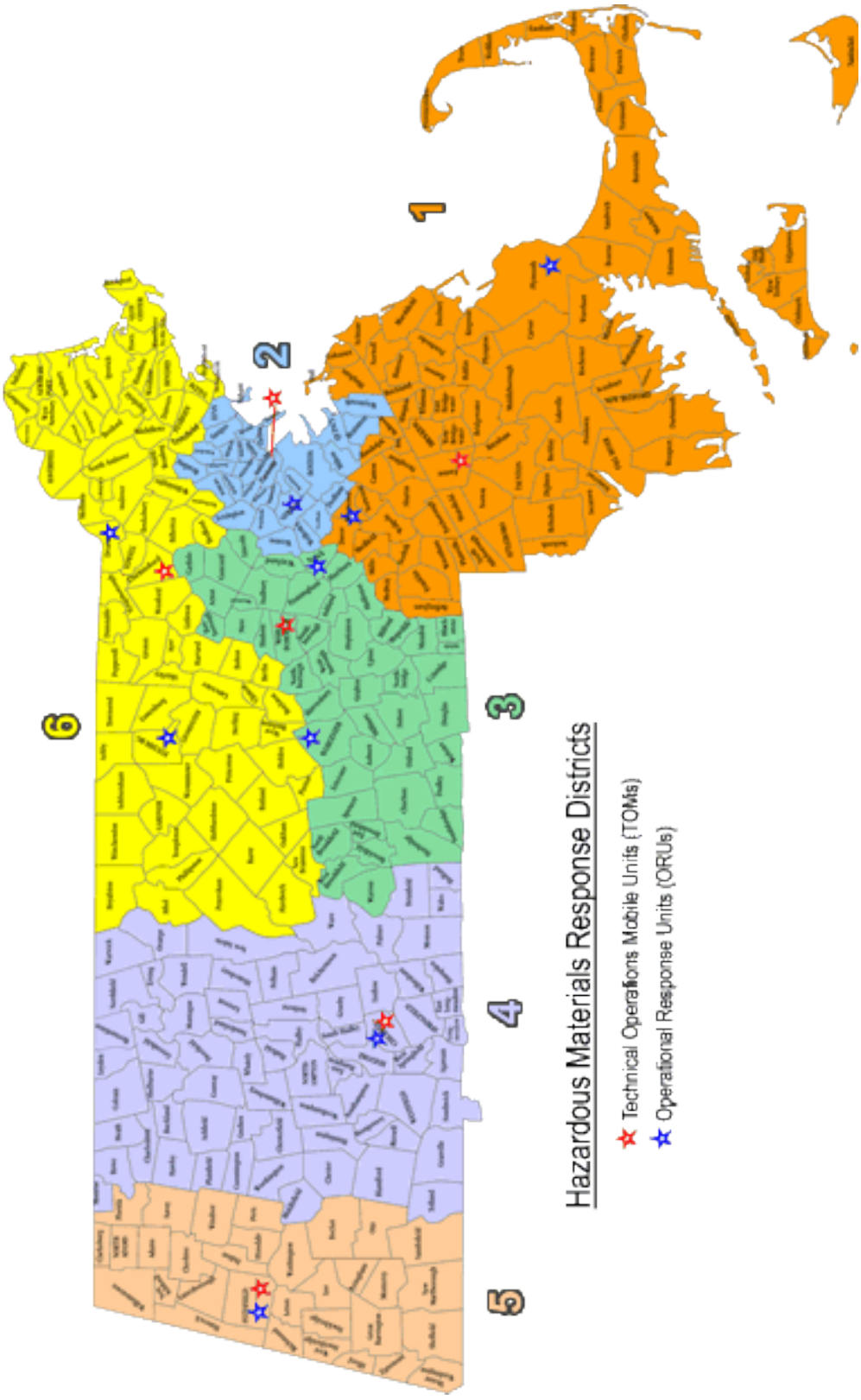
Massachusetts State Police Troops



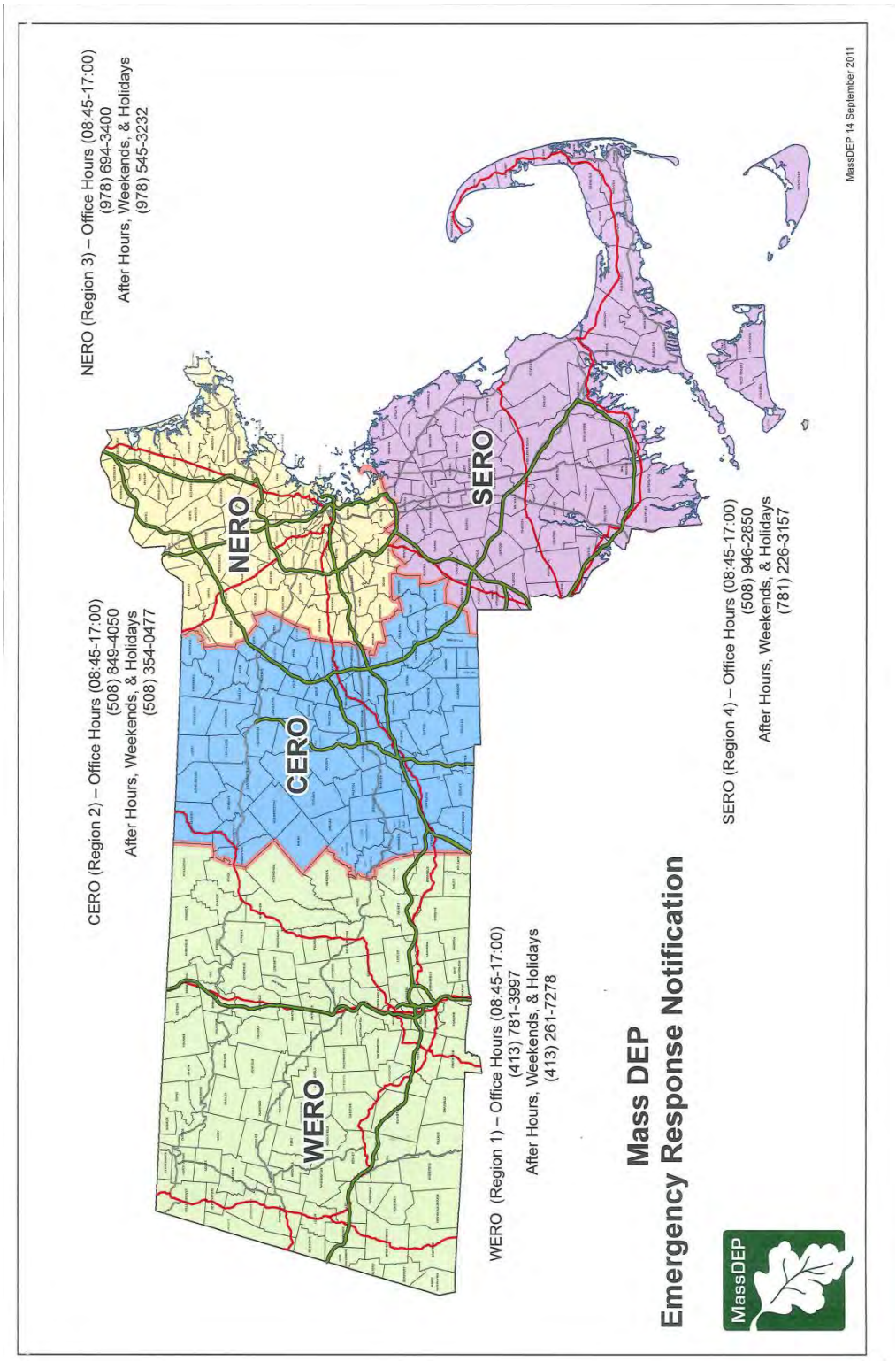
Commonwealth of Massachusetts- Fire Districts



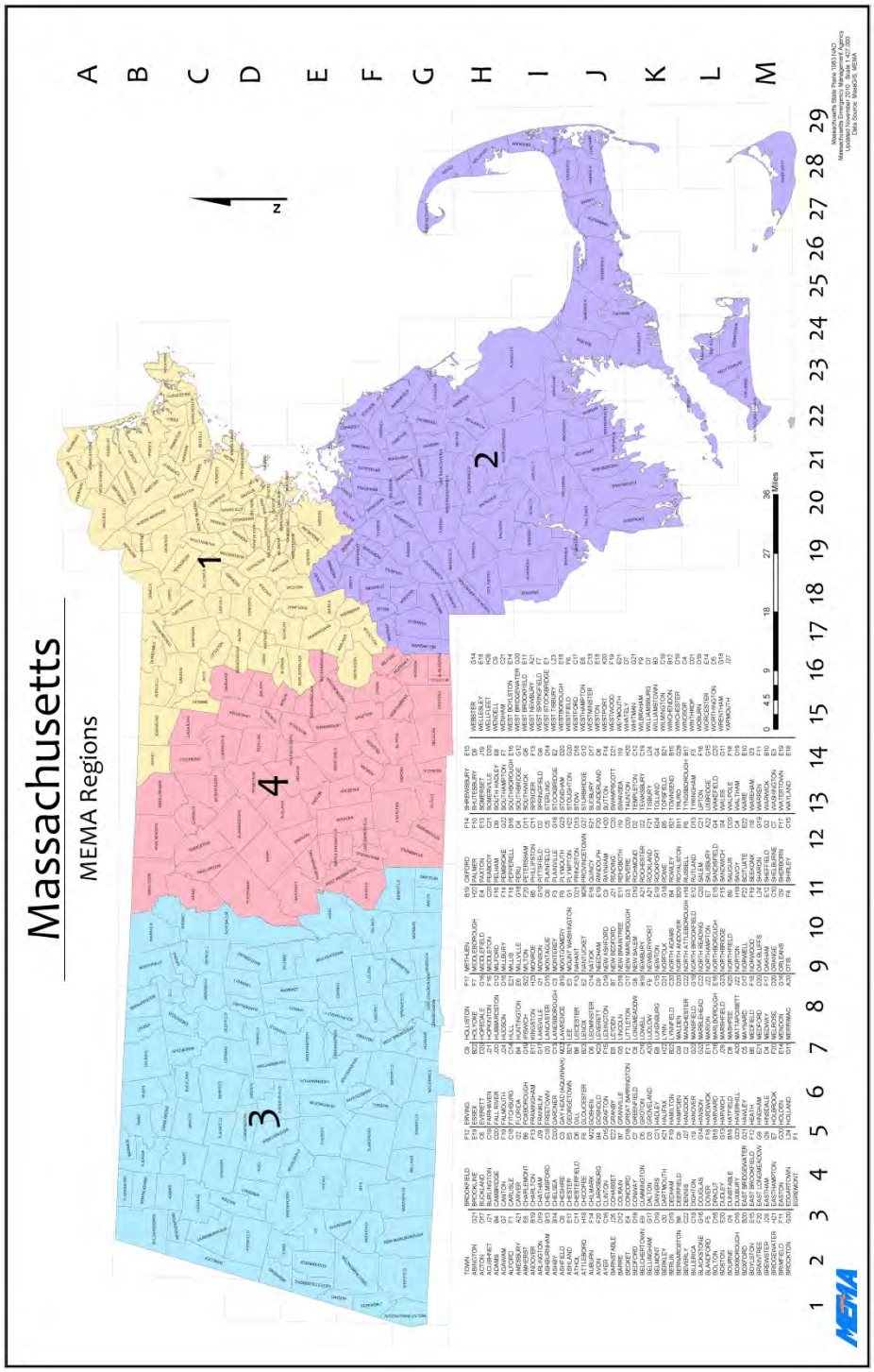
Department of Fire Services- Hazardous Materials Response



MassDEP Regions



MEMA Regions



Appendix C. After Action Review

Purpose:

The purpose of the after action review is to engage professionals in a discussion regarding the actions taken during an event. The purpose is not to affix blame or criticize. Success or failure is not graded. There will always be strengths to sustain and weaknesses to improve. The focus is on the performance activities as they occurred to determine what happened, why it happened and how to sustain the strengths and improve on the weaknesses. An organization cannot improve without honest introspection on performance. It is not intended to cure all of the problems encountered, but to cure some and identify ways to avoid others in the future.

MassDOT will work with its partners in public safety and law enforcement to reduce the number of critical incidents in the highway transportation system, to ensure the principles of incident command are followed, and to take lessons learned from the incident to prevent future incidents or to improve response and recovery. Post-incident meetings will typically be scheduled by the TIM Program Manager, and all pertinent response agencies will be invited to attend. The meeting will be guided by a series of systematic questions that help find answers to; the root causes leading to or exacerbating the event, appropriate actions to prevent re-occurrence, appropriate actions to modify, augment or refine plans, standard operating procedures, or training and exercise programs.

Generally incidents that warrant an After Action Review would be those classified under the Event Classification System at Level 3 or higher. However, a Level 2 incident of significant impact to the public or operations could merit an After Action Review Meeting. For those incidents that do not warrant an After-Action Meeting, the designated Incident Commander should create a synopsis and critique of the incident which will be disseminated to appropriate parties.

Considerations for the AAR will include:

1. Preparedness Actions
    - Review, revise and update the After Action Review Standard Operating Procedure (SOP) periodically to ensure that the SOP incorporates the most recent lessons learned from actual incidents.
    - Continuously build relationships with on-scene incident commanders.
2. Emergency Response Actions
    - Stress importance of retaining notes and documents during an emergency.
    - Ensure applicable records and documentation, such as log forms or messages, are retained for the After-Action Review.
3. Post-Event Actions
    - Work with on-scene incident commander to provide point of contact information for all responding agencies and supporting agencies.
    - The team should have firsthand experience from the incident in order to facilitate conversation.
    - Technical expertise may be brought in when necessary.

- Several members of the team should have strong interpersonal skills to facilitate capturing information through discussions and interviews with incident managers and responders

4. Determine After-Action Review goals and objectives. A primary objective is to learn from what happened so the disaster management, response, and recovery programs can be enhanced.

5. The After Action Meeting
    - Conducted by the TIM program and the on-scene incident commander
    - Involving all responding organizations, supporting organizations both on scene and off scene
    - Work to facilitate conversation and answer all incident related questions.
    - Look at the values and rationale that were applied during the planning process and by managers and responders in reaching decisions concerning response and recovery operations.
    - This should provide the answers to what should have happened, and what should happen next.

6. Assemble the After Action Report. It should include:
    - A consolidated event timeline
    - Incident cause and recommendations for future correction or prevention
    - Mobilization process, including notification of personnel and activation of facilities
    - Prevention, mitigation and response equipment performance and procedures
    - Implementation and performance of disaster response and crisis management plans and procedures including strengths, weaknesses, and concerns
    - Management and coordination of disaster response and crisis management actions of those involved in responding to the incident
    - Post-incident perception of performance as revealed during interviews
    - Key “lessons learned”
    - Based on the post-incident report, review and revise procedures to improve future performance
    - If the policies and procedures did not address issues that became important during the incident, policies and procedures should be developed for those areas
    - If response went poorly due to a lack of training, exercising or planning, these areas should be enhanced or modified and personnel should be familiarized with the changes

7. Distribute the After Action Report to the TIM Task Force and AAR attendees.

Massachusetts Department of Transportation
Highway Division
Sample After-Action Review Agenda

Agenda:

- Introduction
- Rules of Discussion
- Review of the general scenario
- Summary of response
- Discussion of actions
- Review of strengths and weaknesses
- Closing Remarks

Rules of Discussion:

- Professional discussion
- Everyone participates
- Not a critique
- Does not grade success or failure
- One person talks at a time
- Leave personalities out of discussion

Key areas of consideration include:

- Mobilization procedures for personnel and equipment
- Implementing plans and procedures
- Management and coordination of emergency response
- Internal and external communications
- Post-incident perception
- The short and long term consequences of the incident

As a basis for discussion employ a timeline from available observations, logs and recordings. For each step on the timeline answer these questions:

- What action was taken?
- When was the action taken?
- By who?
- What was the purpose of the action?
- What were the expected consequences of this action?
- What was the actual outcome of the action?
- What was the impact of this action on others?
- Should this action be sustained for future events?
- What methods can be used for improvement?

Massachusetts Department of Transportation
Highway Division
After-Action Review Questionnaire

Name:

Incident Location:

City/Town:

Incident Date: Incident Detection Time (from HOC):

Time Notifications Issued:

Provide a brief summary of the incident:

Please note if special circumstances are present

Weather Conditions:

Incident Commander (IC) Name:

Lead MSP Name (if not IC):

Responding Agencies: Please include all agencies/companies and lead responder NAME who contributed to the response:

Police: Fire:

MassDOT: EMS:

Tow/Recovery: DEP:

DPH: Medical Examiner:

Other (Haz-Mat, Media, etc.):

Roadway Clearance Time:

This is the time when all responders have cleared the scene, all lanes.

Appendix C. After Action Review

1. What actions were taken to minimize the safety risks to the responders as well as the public during this incident?

2. Incident Actions*:* The purpose of traffic incident management is to facilitate the safest and fastest roadway clearance, lessening the impact on emergency responders and the motoring public. Please discuss the following:

3. Was traffic control utilized (detours, shoulder)?

4. Which lanes were impacted by the incident?

5. How many lanes were impacted by emergency responders?

6. How long were lanes closed for this incident?

7. What time were additional lanes opened up?

8. Was the number of lanes closed evaluated and changed during the incident?

9. What were the response actions that were triggered when the organization was notified?

10. What plans and procedures were activated?

11. To what extent did plans and procedures guide response?

12. What impact did the incident have on operations, functions, assets, networks, and systems? How were those impacts mitigated?

13. How was information regarding on-scene management shared with personnel responsible for direction and control?

14. From the initial incident report, what information was disseminated?

15. What ongoing notifications were made during the course of the response and recovery?

16. How were notifications made to employees, local and state organizations that needed to know of the incident?

17. What measures were taken to ensure control of access and that only those people directly involved in continuity of operations were allowed to enter?

18. What were the public information actions taken for timely notification to the public?

Massachusetts Department of Transportation
Highway Division
Analysis of Incident Management Actions

Lessons Learned:

Improvement Plan

Deficiency:

Recommendation:

Corrective Action 1:
Corrective Action 2:

Planning Element:

Training Element:

Equipment needed:

Primary agency responsible:

Agency Point of Contact

Start date:

Completion date:

Department of State Police
General Order

Subject	Effective Date	Number
	November 5, 2008	**TRF-05**

Traffic Incident Management

Policy

The Department shall use Traffic Incident Management protocols to minimize the congestion and delay caused by highway incidents.

Traffic congestion causes safety concerns due to the increased risk of secondary crashes, resulting in economic losses, which can adversely impact the quality of life.

Every effort should be made to minimize this cost, in addition to the impact to public safety and the inconvenience to motorists of the Commonwealth.

Applicability

Every incident requires that certain management activities be performed. Even if the incident is small, Traffic Incident Management protocols are applicable to some degree.

The system should always be applied, even to routine incidents to:

- Create familiarity with the system;
- Be prepared for escalation; and
- Increase awareness of the risks that exist in all incidents.

Goal and Objectives

Goal: Use "Quick Clearance" to restore the normal traffic flow as quickly and safely as possible.

Objectives:

- Coordinate and expedite emergency response to incidents;
- Save lives, preserve property and minimize damage to the environment by the use and implementation of standard procedures and/or agreements;
- Improve scene management to facilitate quick clearance of incidents;
- Provide timely, accurate information to other agencies and roadway users about roadway conditions and alternate routes through the use of media, MassHighway's Advanced Traveler Information System (ATIS), and other systems; and
- Minimize the impact of non-recurring incidents through the use of pre-planned alternate routes.

Subject | Number

Traffic Incident Management TRF-05

Unified Command

Incidents occur without regard to jurisdictional boundaries requiring a well integrated, unified command approach to managing the incident scene.

Roadway crashes, fire, and hazardous material incidents usually require a multi-jurisdiction, multi-agency response. Individual agency responsibilities and authority are normally confined by jurisdiction or function by statute.

Unified Command requires all responding agencies to have a functional responsibility that contributes to:

- Ensuring safety of ALL emergency responders;
- Determining overall incident objectives;
- Ensuring joint planning;
- Implementing strategy chosen for clearing the incident;
- Ensuring integrated tactical operations are conducted;
- Maximizing all assigned resources; and
- Re-opening the affected roadway as quickly and efficiently as possible to minimize congestion delays resulting from the incident.

First-On-Scene

There are certain duties and responsibilities required of the first-on-scene member that are critical to initiating the appropriate response necessary to successfully manage an incident.

1. **Initiate Communication of incident with exact location-** Give brief description of incident, route number, direction, town, exit number or mile marker, landmark.
2. **Evaluate the incident-** Type of incident and potential number of injured, traffic conditions, lanes that are blocked, best access to scene:
   - **I.** If a commercial motor vehicle (bus or truck) is involved the Department of Transportation Number is required.
   - **II.** In case of hazardous material releases then the type, estimated amount, tank rupture and placard number is required.
3. **Communicate the evaluation-** Communicate the evaluation and the need for additional responders to the sub-station of jurisdiction.
4. **Secure the scene**- Secure the scene by whatever means available (cruiser, cones, etc.) to prevent further injury or property damage to the motoring public.
5. **Perform First Responder Duties**- Provide basic medical care; (e.g. CPR, first aid), until the arrival of more qualified EMS personnel.
6. **Assume Incident Command (IC) duties until relieved-** Begin to initiate IC responsibilities until the appropriate IC agency arrives. The first-on-scene member shall brief the relieving Incident Commander on the situation.

Subject | Number

Traffic Incident Management TRF-05

Traffic Incident Management Response Framework

Department members shall:

- **Perform First-On-Scene Duties-** All members, when first arriving on the scene of a roadway crash, shall be prepared to assume the first-on-scene duties.
- **Assist in Securing the Scene-** The first responding member shall immediately take charge and secure the scene pending the arrival of the assigned patrol or supervisory personnel to whom the responsibility shall be surrendered.
- **Perform First Responder Duties-** Provide basic medical care; (e.g. CPR, first aid), until the arrival of more qualified EMS personnel.
- **Assume IC Duties When Appropriate**- The senior member at the scene shall assume IC duties. In the event that a fire, explosion, HazMat, or serious threat of fire, explosion, or HazMat is encountered, the responsibility for the "immediate scene" shall fall to the Senior Local Fire Department Official. Department personnel should be aware that Incident Command shall be transferred back to the Department once the fire, threat of fire or Hazardous Material has been removed.
- **Support Unified Command As Necessary-** Paramount to the successful management of any critical incident is cooperation among all of the agencies participating in the operation. Department members shall be aware that Incident Command might be rotated with an official of another agency (such as Fire or MassHighway).
- **Control Scene Access/Egress-** This may include providing escorts for emergency vehicles and equipment necessary for clearing the scene of the injured and any obstructions or hazards.
- **Implement Alternate Routes-** Redirect the flow of traffic from the incident when necessary. Members are reminded that when alternate routing is initiated, which may affect local communities, additional personnel may be needed to augment the local police department at strategic locations to safely move large volumes of traffic within the local community.
- **Assist the Public Information Coordinator-** In order to facilitate the movement of traffic around and away from the incident, the media should be contacted. The Department's Media Relations shall dispatch qualified personnel to the scene of major incidents, if available, and shall provide support to on-scene personnel. The IC shall designate a Public Information Coordinator, normally a member from Media Relations, to interface with the media at the incident.

Continued next page.

Subject | Number

Traffic Incident Management TRF-05

Traffic Incident Management Response Framework (Continued)

- **Conduct Incident Investigation-** The initial responding member, a member designated by the IC, or the assigned patrol of jurisdiction shall complete any and all reports required pursuant to established Department policy and procedure.
- **Participate In After Action Review/Debriefing-** All Department personnel involved shall be available for any after-action review of the incident. Members shall be prepared to discuss their roles and actions during the management of the entire incident.

Traffic Control

When conducting manual traffic control, members shall ensure that their presence and purpose are clear and obvious, and that they use traffic direction and control signals that are easily understood to ensure the safe and efficient flow of traffic.

Members conducting manual traffic control shall:

- Wear issued retro-reflective outerwear and employ a flashlight when warranted;
- Position themselves in a safe location so they can be seen by all;
- Stand straight, with a military-like bearing facing traffic, and be alert to their duties and conditions around them;
- Use clear and simple signals to direct traffic; and
- Start or stop one lane of traffic at a time on multiple lane roads, before proceeding to start or stop the next lane of traffic.

At the scene of critical incidents, members should assist by diverting vehicles around or away from the incident and allow medical and fire personnel room to operate. Roadway closures should be as short as possible; quick clearance techniques shall be employed whenever practicable.

Temporary traffic control devices, including portable signs, moveable barriers, and other apparatus, may be deployed to assist members in the safe and efficient flow and control of traffic. This is mainly applicable for pre-planned events, or long-term road closures.

In most circumstances, planning a road closure beforehand can reduce the length of the closure.

References

Unified Response Manual for Roadway Traffic Incidents

Promulgated By:

Department of State Police
DIVISION COMMANDER'S ORDER

Effective Date: October 25, 2012

Number: 12-DFS-097

Subject

SAFE AND QUICK CLEARANCE OF TRAFFIC INCIDENTS

PURPOSE: To provide guidance to Department members in instituting "quick clearance" protocol at all Traffic Incidents to ensure a safe and efficient highway transportation system.

ABSTRACT: "Quick Clearance" is the process by which incidents are safely cleared and roadways re-opened to traffic in the shortest possible time. A traffic incident is defined as "an emergency occurrence or other unplanned event that affects or impedes the normal flow of traffic." This includes crashes, disabled motor vehicles, debris, etc.

Highway and lane closures at traffic incidents cause an additional public safety hazard that all Department members need to recognize. The likelihood of a secondary crash increases by nearly 3% for every minute that the primary incident remains a hazard. Nationally, secondary crashes account for more than 20% of all crashes and are estimated to cause 18% of all fatalities occurring on interstate highways. For every minute an interstate lane is blocked during times of peak congestion, four minutes of travel delay results. Traffic incidents are estimated to cause more than 50% of the total delay experienced by motorists in urban areas. Traffic crashes and "struck-by" incidents continue to be one of the leading causes of on-duty injuries and deaths for law enforcement, firefighters, and towing and recovery personnel. The Economic losses that result from highway closures are staggering. Unnecessary congestion costs billions of dollars in wasted fuel and loss of worker productivity every year. Environmental impacts are also realized in increased smog and pollution.

Department members shall practice "quick clearance" techniques at all traffic incidents and Motor Vehicle Crash Scenes, focused on restoring the normal flow of traffic as quickly and safely as possible. Public safety and the safety of responding personnel remains our highest priority.

DIRECTIVES:

- Officers arriving at the scene of a traffic incident are responsible for assessing the nature and severity of the incident, determining what resources may be required to stabilize and manage the incident, and ensuring that roadway and incident clearance is accomplished as safely and as quickly as possible.

- Travel lanes will not be closed to traffic more than, or longer than, necessary. Generally, the need to maintain some traffic flow through the incident site shall supersede the need to close the entire roadway for any extended length of time.

- Crash investigations will be conducted in an expedient manner considering the severity of the collision, probability of criminal charges, availability of physical evidence, etc. Whenever possible, vehicles shall be removed from the travel lane(s) and the investigation conducted in a safe area that does not impede or restrict the flow of traffic.

- If additional Department resources are required, e.g. CARS, CVES, CSSS, these officers shall conduct their investigation in a timely manner and work diligently to minimize traffic delays. Non-critical portions of their investigation shall be conducted at a later time when traffic congestion is not a factor. The Department realizes that some incidents, due to complexity, will take longer to clear than others.

- When additional non-Department resources are required, e.g. MassDOT, fire, EMS, towing, officers shall continuously communicate with these assets to ensure safe and efficient incident management. Additional travel lanes should not be blocked or otherwise restricted to allow for the parking of cruisers or non-Department apparatus and equipment when these vehicles are not required to protect the scene or to channel traffic.

- Desk Officers shall actively monitor ongoing traffic incidents to ensure that necessary resources have been expediently dispatched to the incident. Entries will be made into the Daily Administrative Journal to accurately reflect roadway and incident clearance times.

- Troop Duty Officers shall continuously monitor traffic incidents and actively track all lane and highway closures to ensure a safe and quick clearance. Appropriate personnel shall be advised of the status of the incident via timely and accurate SAM-Y messages. Duty Officers are responsible for dispatching a Supervisor to the scene of traffic incidents when necessary.

- The Troop Commander of jurisdiction/designee is responsible for ensuring safe and quick clearance of traffic incidents. If necessary, he/she will consult with the appropriate District Attorney Representative/SPDU Commanding Officer to ensure quick clearance at incidents involving a death. Focused on improving future incident response, Troop Commanders are encouraged to hold after action reviews of significant traffic incidents.

Edward Amodeo

Edward Amodeo
Lieutenant Colonel

References: MSP TRF-01 Mission, Goals, and Objectives
MSP TRF-05 Traffic Incident Management
MSP TRF-09 Towing
MSP TRF-12 Crash Investigations
Unified Response Manual for Roadway Traffic Incidents
FHA Traffic Incident Management Handbook
FHA Manual on Uniform Traffic Control Devices
Massachusetts Amendments to the 2009 MUTCD & Standard Municipal Traffic Code

Appendix D. State Police Directives

Department of State Police
DIVISION COMMANDER'S ORDER

Effective Date: November 1, 2013

Number: 13-DFS-127

Subject

MEDICAL EXAMINER'S RESPONSE TO TRAFFIC INCIDENTS

PURPOSE: To provide guidance to Department members when contacting the Office of the Medical Examiner for traffic incidents involving a death. Timely and expeditious notification is a critical component of the Department's Safe and Quick Clearance Protocol.

ABSTRACT: The first member on the scene of a traffic incident involving death shall notify the Station Desk Officer, who shall immediately notify the Troop Duty Officer. The Troop Duty Officer shall, in addition to notifying the SPDU of jurisdiction and other MSP assets, immediately notify the Office of the Medical Examiner. (617) 267-6767 Ext. 200 or secondary number (617) 366-7085.

For clarification purposes authorized employees/technicians of the Chief Medical Examiner's Office may utilize blue lights when operating official vehicles in their response to a scene.

DIRECTIVES:

- Highway and lane closures at traffic incidents cause an additional public safety hazard that all Department members need to recognize. Department members shall focus on restoring the normal flow of traffic as quickly and safely as possible. Public safety and the safety of responding personnel remains our highest priority.

- In keeping with the Department's Safe and Quick Clearance Protocol, if circumstances warrant, i.e. a fatality during peak commuter hours and/or heavy traffic congestion, notification to the Medical Examiner's Office shall include a request for the responding Technician to utilize blue lights. Also, the Duty Officer will offer and coordinate a State Police escort to facilitate the Medical Examiner's response to the scene.

- Appropriate personnel shall be advised of the status of the incident via timely and accurate SAM-Y messages. Duty Officers are responsible for dispatching a Supervisor to the scene of traffic incidents, when necessary.

Edward Amodeo
Edward Amodeo
Lieutenant Colonel

References:
MSP ADM-13 Notification of Medical Examiner and/or Next of Kin
MSP TRF-12 Crash Investigations
12-DFS-097 Safe and Quick Clearance of Traffic Incidents
State Police Academy Training Bulletin 2013-29

f a c t s h e e t

Towing Company Management of Fuel- and Oil-Contaminated Debris from Vehicle Accidents

After a motor vehicle collision, police and transportation agencies – not to mention motorists – want to get normal traffic flowing again as soon as possible. Your towing company may be called upon to perform limited accident scene cleanup of fuel, oil and other automotive fluids before removing the vehicle(s) involved, so the affected roadway can re-open.

Spill Reporting & Cleanup

All spills of fuel or oil need to be cleaned up and should be reported to the local fire department. If a spill originates from a commercial vehicle and appears to be more than ten (10) gallons, it must also be reported to the Massachusetts Department of Environmental Protection (MassDEP). While spills from passenger vehicle accidents are generally exempt from reporting requirements, they still need to be cleaned up appropriately.

In most cases, towing company employees who respond to an accident call will stabilize the accident scene by using a granular or powdered absorbent material to contain and/or soak up spills on the pavement, shoulder and ground nearby. If most of the spilled fuel or oil cannot be recovered using an absorbent, then a professional hazardous waste cleanup contractor and/or licensed hazardous waste transporter must be hired by the party responsible to clean up the spill.

If any fuel remaining in a vehicle storage tank can be used as originally intended, it can be removed as a "virgin product". This fuel is not subject to waste regulations provided your company holds a local fire department permit for storing combustible or flammable liquids at the location where the responding tow truck is garaged.

IMPORTANT NOTES

To report a fuel or oil spill to MassDEP, call the agency's 24-hour, toll-free notification line:
1-888-304-1133

Your company is responsible for understanding and complying with all local, state and federal hazardous waste cleanup and management requirements, and for training your staff accordingly. Your company may be subject to MassDEP enforcement (which could include significant financial penalties) if it:

- Does not register as a hazardous waste generator and/or as a contractor that self-transports wastes,
- Fails to notify the appropriate authorities of a spill, or
- Exceeds the waste generation and transportation limits described in this fact sheet.

Managing Contaminated Debris from an Accident

Once debris from an accident scene has been contaminated with fuel, oil, and/or other automotive/vehicle fluids, it needs to be handled appropriately. The following is guidance for the cleanup of these materials:

Gasoline. Place absorbents contaminated with gasoline in a separate U.S. Department of Transportation (DOT) approved container labeled to indicate its contents (i.e. "Absorbents Contaminated with Waste Fuel"), their associated hazards (e.g. combustible, flammable, toxic), and the date on which the material was initially placed in the container.

Diesel or Oil. Absorbents contaminated with diesel fuel, gear oil, motor oil, hydraulic fluid, transmission fluid, other waste oils, or any combination of these must also be placed in a DOT- approved container labeled to indicate contents (i.e. "Absorbents Contaminated with Waste Oil"), their associated hazards (e.g. combustible, flammable, toxic), and the date on which the material was initially placed in the container. Diesel and oil containing

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One Winter Street
Boston, MA 02108-4746

Commonwealth of Massachusetts
Deval L. Patrick, Governor

Executive Office of Energy & Environmental Affairs
Richard K. Sullivan Jr., Secretary

Department of Environmental Protection
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materials may not be placed in containers containing gasoline contaminated materials. Your company may collect **up to 220 pounds** (approximately 27.5 gallons or one-half of a 55 gallon drum) of gasoline-contaminated and **up to 220 pounds** of diesel fuel/oil-contaminated absorbent debris from a single accident scene. These are strict limits. If they are exceeded, your company could be subject to MassDEP enforcement action.

Accumulating the different types of debris in separate containers will make it easier for you to properly characterize the wastes you collect and may lower your disposal costs. Please note that any indistinguishable mixture must be handled as gasoline-contaminated debris.

Contaminated Debris Transportation

To transport contaminated debris from an accident scene, the following two conditions must be met:

Your company's property, where the tow truck dispatched to the scene is garaged, must be registered with the MassDEP as a generator of hazardous waste and/or waste oil AND

Your company must be registered with the MassDEP as a contractor that self-transports these wastes from accident scenes.

You may transport no more than 440 pounds (55 gallons) of contaminated material in a single vehicle to the garage or property that is registered with the MassDEP. Gasoline-contaminated absorbent material (and material that is indistinguishable and is being treated as gasoline-contaminated waste), and diesel fuel/oil-contaminated absorbent material must not be co-mingled and must be placed in separate containers.

The truck transporting the hazardous waste may stop to pick up additional hazardous wastes from other accident scenes, but once the containers in your truck reach the limit of 440 pounds or 55 gallons, or at the end of the work day, the container(s) must be transported directly to your company's property. There, you will need to off-load and properly store the collected debris, then arrange for its pickup and disposal, or recycling, by your waste hauler.

You may check on your current hazardous waste generator registration status here:

current hazardous waste generator registration status

If your company is not currently registered with MassDEP to accumulate gasoline-contaminated and diesel/oil-contaminated absorbents or other hazardous waste or waste oil on your property, or to transport these materials to your property, you must:

(1) Submit a Generator Registration Form or Notification of Hazardous Waste Activity to MassDEP for each facility/property where you accumulate hazardous waste. The generator status for which you register will determine how much waste you may accumulate on-site at any one time, and how quickly you will need to ship it off-site for proper recycling or disposal. If your company responds to multiple accidents every month, you will probably want to notify as a Small Quantity Generator (SQG) of both hazardous waste and waste oil. Registration forms and instructions are available on MassDEP's web site. (See **More Information** on page 3 for a link to these.)

AND

(2) Submit a Generator Registration Form to MassDEP, registering your company as a contractor that transports wastes from accident scenes. A copy of the Contractor Registration Form should be kept in each of your tow trucks, in case police ask to see it. (See **More Information** on page 3.)

OR

Wait at the accident scene for a licensed hazardous waste transporter to pick up the contaminated debris. Keep in mind that the party responsible for an

accident scene generating more than 220 pounds (27.5 gallons) of gasoline-contaminated and/or diesel fuel/oil-contaminated debris is responsible for hiring a licensed hazardous waste transporter to remove the waste and properly manifest the shipment. Even if your company is registered as a generator of hazardous waste and/or waste oil with MassDEP, this may be a simpler and potentially less expensive approach than taking responsibility for handling, transporting and accumulating contaminated material on your own.

More Information

Review the following MassDEP web pages:

Hazardous Waste Generation, Accumulation & Labeling Hazardous Waste Generation, Accumulation & Labeling

Hazardous Waste Generator Status & Storage Limits Hazardous Waste Generator Status & Storage Limits

Hazardous Waste Generator Registration Forms & Directions Hazardous Waste Generator Registration Forms & Directions

Policy for Contractors with Hazardous Waste Policy for Contractors with Hazardous Waste

Call the MassDEP Hazardous Waste Compliance Assistance Line: 617-292-5

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Appendix F. References

- NFPA 502 Standard for Road Tunnels, Bridges, and Other Limited Access Highways, 2008 Edition.
- Metropolitan Highway System Integration Report, DRAFT, January 1998.
- Emergency Response/ Fire Alarm Tunnel Zone Plan.
- Cross-passage Door Numbering Matrix.
- Massachusetts Department of Transportation Emergency Management Plan, August 2010.
- Section 19 of chapter 6 A of the Massachusetts General Laws
- Chapter 313 of the Acts of 2002- Massachusetts - An Act Providing Protections Against Terrorism
- Massachusetts Emergency Management Agency (MEMA) Comprehensive Emergency Management Plan
- Commonwealth of Massachusetts Executive Order No. 144 (Revoking and superseding Executive Order No. 25) (1978)
- Commonwealth of Massachusetts Homeland Security Strategy
- Massachusetts Continuity of Operations/Government Plan
- 49 CFR, Part 15 – Security Sensitive Information
- United States Department of Homeland Security- Homeland Security Act (2002)
- United States Department of Homeland Security- National Terrorism Advisory System (NTAS)
- United States Department of Homeland Security- National Response Framework
- United States Department of Homeland Security- National Infrastructure Protection Plan
- United States Department of Homeland Security- Exercise and Evaluation Program (HSEEP)
- Federal Emergency Management Agency (FEMA) - National Incident Management System (NIMS)
- MassDOT Standard Operating Procedure ENV-01-25-1-000; Roadside Unknown Waste Handling