



U.S. Department of Transportation
Federal Highway Administration

EXECUTIVE SUMMARY: Traffic Incident Management In Hazardous Material Spills In Incident Management

Hazardous materials spills provide unique challenges to traffic incident clearance. Response personnel face the challenges posed in a typical traffic incident while dealing with chemical hazards, environmental impacts to the surrounding community, and the additional safety requirements needed to work with hazardous materials.

These hazardous materials spills can be separated into three categories:

- 1. Vehicular fluid spills**—releases of the fluids used in a vehicle's operation (fuel, transmission or hydraulic fluid, etc). While vehicular fluids are not considered hazardous materials per se and are not regulated as such, when they are spilt on the ground or in a waterway, they become so as defined in various governmental regulations.
- 2. Hazardous materials cargo spill**—a release of a substance or materials capable of posing unreasonable risk to health, safety, and or property when transported for commercial purposes.
- 3. Combination**—a mixture of vehicular fluids and hazardous materials cargo.



The mitigation and clean-up of hazardous spills is a major source of delay in clearing traffic incidents. While the established safety standards designed to protect the responders, the traveling public, and the environment from adverse effects of exposure to these materials **must** be followed, there is much that still can be done to minimize the delays resulting from the prescribed clean-up efforts, especially when only vehicular fluid spills with no pending threat to the surrounding environment are involved.

- All first responders, including transportation personnel and tow truck operators, should have the training that allows them to properly identify what hazardous materials are present, the nature of the potential harm, and what is needed to minimize adverse effects.
- Having this knowledge and skill to size up the incident scene also enables these responders to accurately report the nature and type of hazardous materials to the proper resources, saving valuable time assembling the support and equipment necessary for the clean-up.
- When first responders, including transportation personnel and tow truck operators, receive the proper training as prescribed by the Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) and have the proper resources and personal protection, they can assist with basic control and containment actions to prevent spills from spreading. Some techniques that they can use include: plugs, wedges, diking, storm water inlet covers, and absorption materials.
- There are several commercial products and kits available to responders to use for the safe clean up and packaging for disposal of vehicular fluids. These can be readily available as standard equipment kept in their assigned vehicles.
- After successfully completing at least the HAZWOPER First Responder-Operations Level training or the Towing and Recovery Association National Tow Truck Driver Level II certification, transportation personnel and tow truck operators should have the necessary knowledge and skills to assist in the clean up and proper disposal preparation of typical vehicle fluids at an incident.

- With the regulations dealing with response management founded in a number of federal and state or local statutes, it is important that responders in charge know the mandated reporting procedures and ensure proper implementation.

All first responders should have access and be familiar with how to use the Department of Transportation's *Emergency Response Guide*. This comprehensive index provides a quick reference of the required placards that identify the hazardous material class and any associated harmful affects of the various materials. There is also an effort underway for the United States to conform to the United Nations standard of labeling known as the Globally Harmonized System of Classification and Labeling of Chemicals. To date, only certain placards have been introduced but the first responder community should be aware of these efforts and educate themselves as this conversion progresses. The National Fire Protection Association 704M, Hazardous Materials Identification System and the Hazardous Material Identification Guide are other communication systems often used on individual containers, tanks, drums, and barrels found inside semi-trailers.



Documented practices dealing with the issues of the cleanup of hazardous materials resulting from a traffic incident that are paying dividends include, but are not limited to, the following:

- Using quick clean-up techniques by properly trained and certified first responders
- Including the proper tools and materials necessary to facilitate the safe clean-up and storage for proper disposal of these materials as part of standard equipment carried by transportation personnel and tow truck operators
- Implementing quick containment procedures to control the spills from infiltrating water resources
- Hiring pre-designated private response contractors to handle spills
- Improving coordination and preparedness efforts between first responder resources
- Establishing formal written policies regarding the responsibilities and roles of the various first responders in hazardous materials clean-up
- Developing explicit written guides addressing the conditions where transportation personnel and tow truck operators can assist in smaller vehicle fluid clean-ups and providing the necessary instructions on the procedures to follow
- Sharing video links from traffic management centers with law enforcement and fire-rescue
- Having pre-planned coordinated response and traffic control protocols among the stakeholders to minimize the traffic delays resulting from extensive hazardous materials cargo spills

This Primer is available from FHWA's Web site at <http://ops.fhwa.dot.gov/incidentmgmt/publications.htm>.