



# *Compliance Bulletin* *Solid Waste* **Trauma Scene Waste Management**

April 2012

A trauma scene is a location contaminated with human blood or body fluids, human tissue, body parts or other waste from the scene of a serious human injury, illness or death. A trauma scene can occur anywhere, such as on a street, in a home, inside a vehicle or inside an office building.

Trauma scene waste is a subset of medical waste. It may include contaminated bandages, sharps, mattresses, furniture, clothing, other personal or business property, carpeting, automobile seats and drywall or other building materials. It also includes contaminated materials used to clean up and decontaminate the scene. Such wastes are not regulated as hazardous waste in Colorado, but are regulated as solid waste. Colorado statute [25-15-401 CRS *et seq.*] and solid waste regulations [6 CCR 1007-2 Section 13] set minimum requirements for the handling, treatment and disposal of medical waste. Trauma scene and other medical wastes and cleanup are also regulated by federal agencies, including the Occupational Safety and Health Administration (OSHA), US Department of Transportation (US DOT) and the US Environmental Protection Agency (US EPA).

Cleaning up a trauma scene is not something that typical janitorial services, maintenance staff or other untrained persons should be doing. Persons that decontaminate, package, transport and/or dispose of trauma scene waste have specific responsibilities for handling such wastes properly. Improperly handled trauma scene waste carries the risk of infection, can injure unsuspecting people that come in contact with it, and can pollute the environment. OSHA has developed the Bloodborne Pathogens Standard (29 CFR 1910.1030), which applies to all employees who may reasonably anticipate being exposed to blood, body fluids, or other potentially infectious materials while performing their work duties, even on a non-routine basis. Such employees must receive training regarding the hazards of blood borne pathogens, protective measures to be taken to minimize risk of exposure and actions to be taken in the event of a spill or exposure incident. They must also be provided with proper personal protective equipment and have supplies and procedures in place to properly package the waste.

## **Waste Management**

Persons that decontaminate a trauma scene are considered to be medical waste generators. As a medical waste generator, you are responsible for the proper management and disposal of all medical waste that is generated at the trauma scene. You must identify the types and categories of medical waste, properly contain, label, package and store the waste, and ensure that the waste is properly treated and disposed. The waste should be stored in a secured building or vehicle until it is ready for transport to the treatment facility. You must also determine if the waste is subject to other regulatory requirements.

### *Containment and Labeling*

Trauma scene waste must be stored, packaged, contained and transported in a manner that prevents the release of any waste material and in a manner to prevent nuisance conditions. Bags and containers used to contain trauma scene waste must meet applicable Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standards, 29 CFR 1910.1030 and United States Department of Transportation (US DOT) Division 6.2 Infectious Substances (49 CFR Parts 171-

180) containment and labeling requirements. Bags used to contain medical waste must prevent leakage and have sufficient strength to prevent ripping, tearing, or bursting under normal conditions of use and handling. Bags must be tied off or taped closed when full or done accepting trauma scene waste. During waste generation and storage, bags should be provided with secondary containment to prevent tipping or release of bag contents. Secondary containment must be used if the outside of the storage bag is contaminated or if the waste material in the storage bag could puncture the bag. Secondary containment should consist of a disposable or reusable rigid or semi-rigid container that prevents leakage and can be closed after waste has been added to the bag. Reusable secondary containment containers should be cleaned and disinfected after each use.

Sharps include any discarded article that may purposely or accidentally puncture or cut the skin such as razor blades, knives, syringes, needles and broken glass that was or may have been in contact with blood or potentially infectious substances. Sharps waste must be stored in a container that is rigid, leakproof, puncture resistant and closable consistent with the requirements under OSHA's Bloodborne Pathogens Standard. The Department recommends that sharps containers manufactured for the sole purpose of sharps containment be used. To prevent needlestick injuries, sharps containers must never be completely filled or filled past the full line indicated on the sharps container (usually two-thirds to three-fourths full). Sharps containers must be taped closed or tightly lidded when they are no longer in use and ready for disposal.

Bags and containers of potentially infectious waste, blood and body fluids, pathological waste, and sharps waste must be labeled in accordance with OSHA's Bloodborne Pathogens Standard. The biohazard label must contain the word "Biohazard" and the universal biohazard symbol, and the label should be legible and in good condition. The background of the label must be fluorescent orange or orange-red and the universal biohazard symbol and "Biohazard" lettering must be of a contrasting color. Secondary containment containers must also be properly labeled. Although OSHA allows the use of red bags or containers to be used as a substitute for the use of a biohazard label, the Colorado Department of Public Health and Environment (the Department) strongly suggests labeling this type of bag or container with the word "Biohazard" or with the contents of the bag or container and the universal biohazard symbol.

#### *Temporary Storage of Trauma Scene Waste*

All trauma scene waste must be maintained and stored in a way that will not produce nuisance conditions. If the waste is not immediately taken to a permitted medical waste storage or treatment facility, an area should be designated at your facility for short-term storage of the waste.

The designated waste storage area can be located inside or outside, but the storage area should comply with the following:

- The area should be a secured, enclosed structure or storage unit that is inaccessible to animals and unauthorized personnel.
- The area should be constructed with smooth, easily cleanable non-porous materials that are impervious to liquids and resistant to corrosion by disinfection agents and hot water. Floors should have adequate drainage and be free of standing water. Carpet and floor coverings that have cracks or gaps should not be used in the storage area.
- The area should be secured to prevent unauthorized access. Warning signs, on or adjacent to the exterior door(s), should be marked with the international biohazard symbol (if the trauma scene waste is subject to OSHA's Bloodborne Pathogens Standard) and the words

“Caution – Medical Waste Storage Area – Unauthorized Persons Keep Out.” Signs should be legible with lettering at least 2 inches tall.

### *Storage Time Limits*

Putrescible medical waste includes blood and body fluids, pathological waste, and any other type of trauma scene waste that contains organic matter capable of decomposing and attracting insects or rodents or causing nuisance conditions like odors. Putrescible medical waste that is not refrigerated, frozen, or treated on-site may be stored on-site for no more than 30 days as long as the waste is packaged to meet all OSHA and US DOT requirements prior to being placed in the storage area. If packaged waste is discovered to be leaking, it must immediately be overpacked in a new container that meets OSHA and US DOT requirements. Medical waste that packaged to meet all OSHA and US DOT requirements and is kept refrigerated (45°F degrees or less) or frozen can be stored on-site for no more than 90 days. Medical waste that causes nuisance conditions must be immediately refrigerated, frozen or treated on-site, or be transported off-site within 48 hours for treatment and disposal. On-site storage of non-putrescible medical waste, including sealed sharps containers, must not exceed 90 days.

Your facility should use some type of tracking mechanism to keep track of the type and amount of trauma scene waste generated and stored. This could include retaining shipping manifests or shipping papers or maintaining a tracking log.

### *Liquid Waste Management*

Trauma scene wastes consisting of blood and body fluids, minor amounts of semi-solid tissues, used disinfectants and / or contaminated water used to clean up the site may be disposed of down the drain if that is acceptable to the wastewater treatment plant. If the site is on an individual sewage disposal system (septic tank), liquid wastes should not be disposed of in this manner. If not immediately disposed of down the drain to be treated at a wastewater treatment plant, these wastes should be absorbed by a binder material such as commercial spill absorbents or towels and containerized for proper treatment and disposal as discussed above. Liquids from a trauma scene shouldn't be washed into the storm drain because storm drains lead directly to surface water with no intervening treatment.

### *Packaging for Off-site Transport*

You can self-transport trauma scene waste in your own vehicle to:

- A site that you own or operate where the waste is consolidated before being taken or sent to a permitted medical waste facility or medical waste mail-back service.
- A permitted medical waste storage facility.
- A permitted medical waste treatment facility.

Generators who prepare and offer trauma scene waste for shipment must comply with US DOT packaging, marking, labeling, placarding, shipping paper, security plan, and training requirements. Anyone that transports trauma scene waste and those that prepare trauma scene waste for transport must meet United States Department of Transportation (US DOT) requirements for transporting Division 6.2 Infectious Substances (49 CFR Parts 171-180). You may be able to transport small quantities of trauma scene waste utilizing the US DOT's Materials of Trade exception (49 CFR Section 173.6). US DOT's Materials of Trade exception allows non-commercial medical waste transporters to transport small quantities of US DOT hazardous materials (other than hazardous

waste) under reduced US DOT requirements. To qualify for the Materials of Trade exception, you must:

- Transport no more than 440 pounds (200 kg) of US DOT Division 6.2 Category B Infectious Substances and other hazardous materials at any one time; and
- Meet Materials of Trade exception reduced packaging requirements; and
- Meet Materials of Trade exception marking and labeling requirements.

If all of the requirements of the Materials of Trade exception are not met, then the transporter is subject to the more stringent US DOT Division 6.2 Infectious Substance requirements.

Shipping containers need to prevent leakage, be impervious to moisture, be burst, tear and break resistant, and be able to withstand normal transport conditions. The proper US DOT shipping name and identification number along with the name and address of the generator and transporter must be placed directly on the container or on a label, tag, or sign attached to the container. Depending on the type of packaging used, additional DOT requirements may apply. Shipping papers that meet US DOT requirements must accompany the waste shipment.

There are currently no rigid containers that meet US DOT Division 6.2 requirements that are large enough to hold bulky trauma scene waste like mattresses, recliners or rolled up carpeting. In addition, most medical waste treatment facilities have size and weight limits. Standard practice in the trauma scene cleanup industry is to cut out the contaminated area or disassemble the contaminated items for proper packaging for transport. Be aware that this practice increases the potential for exposure to bloodborne pathogens, so training in OSHA Bloodborne Pathogens and the use of appropriate personal protective equipment is especially important.

For more information on infectious waste transportation requirements, contact the US DOT hazardous materials transportation information line at 1-800-467-4922 or review the US DOT brochure at

[www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/Transporting\\_Infectious\\_Substances\\_brochure.pdf](http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/Transporting_Infectious_Substances_brochure.pdf) . A US DOT Materials of Trade brochure is available at <http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/mots05.pdf>

Generators of trauma scene waste that utilize medical waste mail-back services must ensure that the trauma scene waste is packaged according to United States Postal Service (USPS) requirements. Since the mail-back service must be specifically authorized by the USPS to mail medical waste and sharps medical waste, they provide the appropriate receptacles, packaging, labeling and marking materials, and documentation to mail the package. The generator must ensure that they follow the directions provided by the mail-back service provider.

## **On-Site Medical Waste Management Plan**

As a medical waste generator, you are required to develop and implement an on-site medical waste management plan. The medical waste management plan must be kept current and be specific to the types of medical waste you generate. The plan must contain the following:

- Designation of medical waste. Proper management of trauma scene waste begins with the identification and categorization of the types of trauma scene waste generated.

- Provisions for the handling, treatment, and disposal of medical waste. You must describe how each medical waste category will be segregated, contained, packaged, labeled, stored, transported, and treated for disposal.
- A contingency plan for spills or loss of containment. You must describe actions that will be taken if there is loss of containment of packaged waste, including how the waste will be cleaned up and repackaged and the affected area disinfected.
- Staff training. You must describe the type, amount and frequency of training that will be provided to employees based on each employee's job roles and responsibilities.
- Designation of a person responsible for plan implementation. At least one employee must be designated with the responsibility being thoroughly familiar with the plan and to communicate what is expected to implement plan components.

If you have already prepared a Bloodborne Pathogens - Exposure Control Plan and/or developed a Hazardous Communication Program in accordance with OSHA requirements, amendments to that plan or program may fulfill the medical waste plan requirements, provided that all of the above requirements are also met.

### **Recordkeeping**

A copy of your medical waste management plan must be maintained at your facility. The plan should be reviewed at least annually and updated whenever changes related to trauma scene waste generation or handling occur. Unless requested by the Department, a copy of this plan does not have to be submitted to the Department. However, this plan must be available upon request to the medical waste transporter, medical waste treatment facility, and to the licensing or regulatory agency. Any records related to trauma scene waste (e.g., trauma scene waste accumulation logs, shipping papers or manifests, training rosters) should be kept for at least three years.

### **For more information please contact:**

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