



**SPECIAL  
MEDICAL WASTE  
PROGRAM**

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## **PATHOLOGICAL/BIOLOGICAL/INFECTIOUS WASTES**

This document details the steps to be taken for the Towson University Community to comply with the Code of Maryland Regulation (COMAR) Title 26, Subtitle 13 Chapter 11 Special Medical Waste (SMW), and COMAR Title 10, Subtitle 6, Chapter 6 Diseases. Both of the regulations are complementary. Each regulation was written by a different state agency. Title 26 is promulgated by the Maryland Department of the Environment, and Title 10 is promulgated by the Maryland Department of Health and Mental Hygiene. The regulations essentially parallel the currently existing state hazardous waste (CHS) regulations in that each generator and transporter of SMW must apply for an additional state identification number and must use SMW permitted transport vehicles. SMW may only be disposed of via state licensed SMW disposal facilities. Landfilling of SMW is strictly prohibited. The following material is to be classified as Special Medical Waste (SMW) and dealt with in accordance with the above noted regulations:

1. Blood (animal or human) or blood soiled articles;
2. Anatomical materials (animal or human);
3. Microbiological laboratory waste;
4. Contaminated materials; or
5. Sharps (needles, syringes, surgical instruments, etc.).

### **I. GENERAL INFORMATION PERTAINING TO THE SMW REGULATIONS**

Emergency regulations governing the handling, treatment and disposal of special medical waste went into effect on September 30, 1988. Major features of the new regulations are highlighted here.

#### 1. WHAT IS SPECIAL MEDICAL WASTE?

Special Medical Waste (SMW) is defined by the regulations as anatomical material, blood or blood soiled articles, contaminated material (contaminated feces or articles contaminated with infectious agents), microbiological laboratory waste, needles, sharps, and syringes.

#### 2. WHO MUST FOLLOW THE REGULATIONS?

Any person who generates SMW in the normal course of business must follow the DHMH regulations for handling, treatment, and disposal of SMW (COMAR 10.06.06); any company/individual who generates more than 110 pounds of SMW must follow the Maryland Department of Environment (MDE) regulations for hauling and disposal of SMW (COMAR 26.13.11 et seq.).

3. WHAT IS THE DIFFERENCE BETWEEN "HANDLING" AND "TREATMENT" OF SMW?

"Handling" refers to handling or maintaining the SMW immediately after it is generated and before it is "treated" or hauled away for treatment. "Treatment" refers to the process of assuring that the SMW is not infectious.

4. WHAT ARE THE REQUIREMENTS FOR HANDLING OF SMW?

Blood, anatomical and contaminated materials must be placed in a leak proof container to prevent spillage. Sharps, needles and syringes must be placed in a container that is impervious to puncture.

5. WHAT ARE THE REQUIREMENTS FOR TREATMENT OF SMW?

The regulations allow several different methods of treatment for each type of SMW. Liquid blood may be deposited in a sanitary sewage system (flushed in toilet), incinerated, autoclaved, or chemically disinfected. Blood-soiled articles may incinerated, autoclaved or chemically disinfected. Anatomical materials may be buried, cremated, mechanically destroyed and deposited in sanitary sewer (grinding and flushing), or incinerated.

Needles, sharps, and syringes may be incinerated, autoclaved, or chemically disinfected. If treatment is by incineration or chemical disinfection, needles, sharps and syringes must be mechanically destroyed prior to disposal. -- Contaminated materials must be incinerated, autoclaved, or chemically disinfected.

6. WHAT ABOUT DISPOSAL OF SMW AFTER IT HAS BEEN TREATED?

If you generate less than 110 pounds of SMW, after treatment, you may dispose of SMW in accordance with local and State laws and regulations. If you generate more than 110 pounds of SMW per month, you must comply with regulations (if appropriate) for manifesting, packaging, transporting, recordkeeping and reporting.

7. WHAT ARE THE PENALTIES FOR NON-COMPLIANCE?

Under DHMH regulations, the Secretary may fine any person who violates the regulations up to \$500 per day of the violation. In addition, the Secretary may suspend, revoke or suspend any license, permit or certificate issued to any person who violates the regulations.

FOR MORE INFORMATION, OR A COPY OF THE DHMH REGULATION, PLEASE CONTACT THE DEPARTMENT OF ENVIRONMENTAL HEALTH & SAFETY AT (410) 296-7593.

## **II. DISPOSAL PROCEDURES FOR SMW:**

Individual generators of SMW at TU will ensure that all SMW is disposed Of in accordance with this procedure. New employees should undergo training on these procedures prior to handling SMW.

The following identifies the proper receptacle(s) for specific SMW:

### **BLOOD AND BLOOD SOAKED MATERIALS:**

1. Must be placed into leakproof plastic containers, properly labeled as containing biohazardous material. This material will be collected by the SMW disposal contractor.
2. This material may also be disposed of by either: a. If in liquid form, may be deposited into a sanitary sewer; or b. Incinerated c. Autoclaving; or d. Chemical disinfection. If treated by above noted method b., c., or d., then it may be disposed of as domestic solid waste.

### **ANATOMICAL MATERIALS:**

1. Must be placed into leakproof (minimum 3 mil thick) plastic bag, which is properly labeled as containing biohazardous material. This material will be stored in an approved, appropriately labelled cardboard box which will be picked up for collection by the SMW disposal contractor when full.
2. Bags must be placed in rigid containers which are clearly labeled as containing biohazardous material; and
3. If the container is to be reused for any purpose, it must be disinfected prior to reuse. The agent be used in such a manner as to assure the eradication of any biological agent that may have remained within the container.
4. May be treated and disposed only by: a. Interment; or b. Cremation; or c. Incineration followed, by disposal as domestic solid waste.

### **CLINICAL MICROBIOLOGICAL LABORATORY WASTE/CONTAMINATED MATERIALS:**

This section entails the following categories of SMW: a.) Feces or other body fluids from an individual diagnosed as having, or suspected of having, a disease capable of being transmitted to another human through the feces or other body fluid; b.) An article soiled with feces or other body fluid from an individual diagnosed as having, or suspected of having, a disease capable of being transmitted to another human through the feces or other body fluid.

1. Must be placed in leakproof bags of at least 3 mils thickness; and
2. Bags must be placed in rigid containers clearly labeled that they contain biohazardous material, and
3. If rigid containers are to be reused, they must be disinfected prior to reuse; and
4. May be disposed of by: a. If fecal material, deposited down a sanitary sewer; or b. Incineration; or c. Autoclaving; or d. Chemical disinfection; and e. Disposing of as solid domestic waste.

**SHARPS:**

1. Must be placed in a puncture proof container which is clearly labeled as containing biohazardous materials.
2. Full sharps containers will be placed into appropriate SMW solid waste containers for proper disposal.

**SPECIFIC TU HEALTH CENTER & TOWSON CENTER DISPOSAL PROCEDURES:**

- A. All treatment rooms, examining rooms, laboratories, restrooms, and Medical Records areas will have containers for the disposal of SMW. Each container will be properly labeled with a "Biohazard" sign have a properly functioning lid, which will be closed at all times unless in actual use, and will be made of metal, thick impervious heavy plastic, or thick cardboard. Each container will be lined with a red plastic biohazard bag. Care must be taken so the proper type of container is used. Sharps (Needles/puncture type items) are to be placed in the hard red plastic containers, which are labeled "Biohazard". Objects, such as gauze and bandages, are to be placed in the containers lined with red plastic biohazard bags.
- B. Items contaminated with blood and or body products and would not be able to puncture the plastic bag, are to be placed in the red "Biohazard" labeled plastic bag. These bags are to be placed in hard, covered containers. The lids on these containers must be closed at all times except when in actual use.
- C. Health Center and Training Room Staff will monitor Biohazard Containers and dispose of the them when they become 2/3 rd's full. This will assist in the prevention of employee exposure and contamination of the local area where the container is placed. Employees are also to use gloves at all times while working with potentially infectious material, and are to report all exposures to potentially infectious agents immediately to their supervisor.
- D. Laboratory coats, towels, cloth aprons, and/or bed lines that have become visibly soiled with blood or body fluids will be treated as being a biohazardous material. These items will be placed in a red biohazard plastic bag for proper disposal.

**DECONTAMINATION:**

- A. Surfaces that have been contaminated with blood or body fluids must be properly decontaminated as soon as possible after the incident occurs. The area must be decontaminated with an agent strong enough to kill HIV and HBV, as well as other pathogens, such as Mycobacterium and streptococcus, to name a few. Decontamination can be performed by applying a mixture of 1 part bleach and 9 parts water to the area and allowing it to stand for 20 minutes. The surface is then to be cleansed with soap and water. This mixture can be no older than 1 hour when used. Another type of solution or commercial product may be used in place of the bleach solution, as long as it can document that it is effective against HBV, HIV, and other bloodborne pathogens. Gloves must be worn when an area is being decontaminated, and eye protection is to be worn if there is any likelihood of splash. All materials used to clean the area must be disposed of as SMW when appropriate, or decontaminated in the same manner as was the originally contaminated area.
- B. Laboratory jackets that become soiled with visible blood or body fluids must be placed in a plastic biohazard labeled bag for proper disposal or decontamination. At this time, TU will be disposing the jackets as SMW.
- C. Contaminated non-disposable safety equipment will be decontaminated in accordance to section A above. This would include such items as pocket respirators used in CPR, bag-valve masks, goggles, face shields, and the like.
- D. Contaminated disposable items, such as, gloves, paper aprons ,and surgical masks, will be disposed off in the proper receptacle used for SMW.

Additional SMW containers and bags can be obtained upon request by contacting The Department of Environmental Health & Safety. These are supplied by the SMW Disposal Contractor.