

Messiah College

Infectious/Biohazard Waste Management Policy and Procedure

Policy: It is the policy of Messiah College to manage the storage, disposal, and processing of infectious and biohazard waste in accordance with EPA, PADEP and OSHA Regulations.

Objectives: To manage the storage, processing, and disposal of waste in accordance to regulatory requirements.

*Attachments: A. Infectious Waste Disposal Summary Chart
B. Biological Emergencies*

Procedure:

Responsibility : It will be the responsibility of any department at Messiah College who generates infectious waste to understand the content of this policy. Infectious waste will be collected at the point of generation. The departments who generate the waste will be required to contact the Waste Coordinator at 3561 for disposal. Waste can only be kept for up to 30 days, at which point the Waste Coordinator is to be notified for the removal of the waste. The Waste Coordinator will store the infectious waste in a freezer located at the Lenhart Central Accumulation Area for up to 90 days and schedule regular pick ups for disposal as needed. Only the Waste Coordinator is to be scheduling the pick up of infectious waste by the off-site hauler. SAA pick up should be directed to the Waste Coordinator. Records concerning the disposal of infectious waste will be the responsibility of the Waste Coordinator and maintained in the Lenhart Resource Room (117).

Definitions

A. Infectious Waste

Infectious waste includes the following:

Laboratory Waste "Laboratory Waste" means:

- Waste cultures and stocks of agents that are generated from a laboratory and are infectious to humans.

- Discarded contaminated items used to inoculate, transfer, or otherwise manipulate cultures or stocks of agents that are infectious to humans.
- Wastes from the production of biological agents that are infectious to humans.
- Discarded live or attenuated vaccines that are infectious to humans.
- Wastes that originates from clinical or research laboratory procedures involving communicable infectious agents unless such waste has been properly decontaminated by an approved process (e.g. autoclaving).

Blood "Blood" means:

- Human blood and blood components and products made from human blood.
- Solid waste saturated with dripping human blood or blood products (e.g. contaminated items that would release blood in a liquid or a semi-liquid form, if compressed).
- Human blood products include serum, plasma, and other blood components.

Regulated Human Body Fluids "Regulated human body fluids" means:

- Blood and blood components.
- Cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid, semen, pus, drainage, vaginal secretion.
- Any body fluids that are visibly contaminated with blood, that are in containers or that drip freely or could be released in a liquid or semi-liquid state from soaked solid wastes items.

Research Animal Waste "Research animal waste" means:

- Carcass, body parts, and blood derived from animals knowingly and intentionally exposed to agents that are infectious to humans; and/or accidentally or naturally infected with agents that are infectious to humans for the purpose of research, diagnostic, production of biological and/or testing of pharmaceuticals.

Infectious animal waste includes the following:

- Radioactive Research Animal Waste: Animals and animal waste contaminated with radioactive material.
- Research Animal Waste Contaminated with Toxic Chemicals

Sharps "Sharps" means: Any discarded items that can induce sub-dermal inoculation of infectious agents, or any item that can easily penetrate the skin, puncture waste bags and cardboard boxes including:

- Needles and syringes
- Surgical, scalpel and razor blades.
- Pasteur pipettes capillary tubes.
- Slides and cover slips.
- Shards of contaminated glass, and any other sharps items derived from human or animal patient care, blood banks, laboratories, mortuaries, research facilities and industrial operations.

Sharps are considered infectious waste whether contaminated with infectious agents or not.

B. Pathological Waste

"Pathological waste" means: Human tissue and body parts removed by trauma, during surgery or autopsy or studies and which is intended for disposal. Pathological waste does not include teeth, hair, or nails.

C. Objectionable Waste

Objectionable waste means:

Waste that will not be accepted in the trash haulers main processing plant, this includes:

- Blood administration tubing.
- Tubing or drainage collection devices (e.g. hemovacs, J.P. bulbs, and suction canisters), which cannot be emptied and/ or rinsed from all visible blood.
- Wound dressing/ gauze, which contains spots of blood greater than 2 inches in diameter.
- Large volumes of tubing disposed of in same container (e.g. waste bag full of IV and/or ventilator tubing).

D. Broken Glass

Broken glass means:

Any large items of non-contaminated broken glass containers. This

includes bottles, burettes, beakers, test tubes, etc.

E. Non-Infected Research Animal Waste

Non-infected research animal waste means:

Animals and animal waste that have not been in contact with agents that are infectious to humans or are not considered naturally infected.

F. Preserved Animal Waste

Preserved animal waste means:

Preserved animals and parts that have been used in a teaching laboratory.

Procedure

A. Waste Segregation

- All wastes will be segregated into appropriate categories at the point of generation (e.g. laboratory, academic areas, and service area), properly containerized and maintained in separate packaging throughout collection, storage and transport in a manner that prevents release of the waste material.
- All untreated infectious waste will be placed immediately into appropriate collection bags and containers.
- All infectious/ objectionable waste destined for on-site decontamination by autoclaving will be segregated from other waste and placed directly into autoclavable waste collection bags

B. Labeling and Container Requirements

1. Container Requirements

a. Reusable containers:

- Infectious waste collection and transportation containers will be rigid; leak-, burst- and tear-resistant under normal conditions of handling and use; constructed of smooth, easily cleanable, impermeable material.
- Reusable containers that have been in direct contact with infectious material will be disinfected prior to reuse.

b. Disposable containers:

- All infectious waste collection containers (other than sharps) will be lined with disposable waste collection bags.

Infectious waste collection bags will be impervious to moisture and of sufficient strength to preclude ripping, tearing or bursting under normal conditions of use and handling.

- Red disposable infectious waste bags will be used for the collection of non-autoclavable infectious waste, such as pathological waste or infected research animal waste, or for other waste not intended for on-site decontamination or treatment.
- Sharps containers will be rigid and puncture-, burst- and tear-resistant under normal conditions of handling and use. All sharps containers will be prominently labeled with the words "Sharps" and bear the biohazard symbol. Sharps containers should be closed to prevent hands from entering the box and closed permanently when the box is full.

Please Note: Cardboard boxes are not acceptable sharps containers and should not be used as such.

2. Labeling Requirements:

- a. All infectious waste collection containers, bags, or liners will be clearly labeled with a biohazard symbol and/or marked with the words "Infectious Waste".
- b. Sharps containers must be labeled with the words "Sharps" and bear the biohazard waste symbol whether the sharps are infectious or not.
- c. It will be the generator's responsibility to post a biohazard label on the doors of any room door where Biohazard Waste is kept. In general, affix Biohazard Warning labels to refrigerators, freezers and other containers holding blood and other potentially infectious materials to warn others of the hazards involved.

3. Storage Requirements:

- a. Infectious/objectionable, pathological, infected research animal and pathological waste destined for off-site shipment must be properly containerized, labeled and stored separately from other waste in areas designed to prevent the entry of vermin and access by unauthorized persons.

- b. All untreated infectious waste and non-preserved animal and pathological waste will be stored in coolers, refrigerator and freezers to prevent putrefaction and minimize odors.
- c. All storage containers will have tight fitting lids.

4. On-Site Decontamination of Infectious Waste


- a. All laboratories involved with the use of virulent infectious agents must decontaminate all cultures, stocks and materials used in the manipulation of infectious agents before disposal into the normal waste stream or general refuse.
- b. Infected animal carcasses and body parts will not be decontaminated on-site but shipped for off-site incineration.
- c. Subsequent to decontamination, all autoclaved waste will be handled as normal waste and discarded in the normal waste stream.

5. Decontamination by Autoclaving

- a. Autoclaving (saturated steam under pressure) is an approved decontamination method of most infectious waste (other than research animal and pathological waste). Usually, a 60 to 90 minute cycle at 121 degrees C will be used to effectively decontaminate waste.
- b. There are other acceptable processes for the decontamination of infectious waste. However, the approval of the Lab Manager is necessary prior to decontamination.



Infectious Waste Disposal Summary Chart

Type of Waste	Type of Container	Local Treatment	Final Disposal
<p>Sharps</p> <hr/> <p>Needles, syringes, surgical scalpels, razor blades, Pasteur pipettes, capillary tubes, slides, cover slips and shards of contaminated glass</p> <hr/> <p>Sharps (except uncontaminated glass) are considered infectious waste whether contaminated with infectious agents or not.</p>	 <p>Sharps Container</p>	<p>None</p> <p>Place sharps items intact, directly into sharps receptacle immediately after use, without recapping. Sharps container must not be filled more than 3/4 full.</p> <p>When container is 3/4 full, close container tightly and seal by taping cover. Contact Waste Coordinator for removal to Lenhert.</p> <p>Warning: Open containers and containers with items other than sharps will not be picked up</p>	<p>Shipped off campus to outside contractor for ultimate destruction</p> <hr/> <p>Store containers in a secure area until picked up for disposal by Waste Coordinator</p>
<p>Contaminated Non-Sharps Items</p> <hr/> <p>Culture media and plastic ware, glass ware or other non-sharps items (e.g. gloves, absorbent pads, test tubes, non-Pasteur pipettes, culture plates etc), contaminated with potentially infectious materials or agents (e.g. blood, body fluids, infectious cultures)</p> <hr/> <p>Never place sharps items in an autoclave bag; sharps must be disposed of in sharps container as infectious waste.</p>	<p>Clear autoclave bag (Not red bag)</p>	<p>Decontaminate by Autoclaving</p> <hr/> <p>Place waste bag (clear autoclave Bag) in autoclave machine for 60 minute cycle at 121 C. after autoclaving, let waste bag cool off and drain excess liquid, then place bag in regular trash bin located in autoclave room. W</p>	<p>Placed in infectious waste container and disposed of as infectious waste</p>
<p>Contaminated Liquids</p> <hr/> <p>Cell cultures, contaminated broth or media,</p>	<p>Glass bottle (2.5 or 4 Liters) marked with universal Biohazard symbol</p>	<p>Decontaminate with bleach solution</p> <hr/> <p>Add 10% bleach solution to the liquid waste bottle</p>	<p>Discharge into sanitary sewer system</p>

Biological Emergencies




















In case of biohazardous material spill, or exposure* to an infectious material or agent, do not panic. Proceed with the following:

1. Notify all personnel in the area of the spill. Contact Dispatch immediately at 6005.
2. Restrict access to spill area.
3. Remove all contaminated clothing and place in a Biohazardous (autoclave) bag.
4. If skin is contaminated, begin washing with mild soap and water.
5. In case of an exposure,* seek medical help immediately.
6. Put on clean gloves and face mask.
7. Place absorbent pads on spilled material.
8. Spray pads with a disinfectant.
9. Have someone else call Dispatch at 6005.
10. Follow Emergency spill procedure. Use EPA approved Stepan Company Disinfectant (EPA#1839-83-1677) available through Campus Events.

Do not attempt to clean up a bioinfectious material spill without use of appropriate protective equipment.

If unsure, consult with the Waste Coordinator.

** All needle sticks and eye, mouth, other mucous membrane, or non-intact skin contact with blood or other infectious materials is considered an EXPOSURE INCIDENT and must be reported immediately to Dispatch at 6005.*

 Biohazardous and Medical Waste Disposal Guidelines 	
<p>Sharps</p>  <p>Uncontaminated & Contaminated: Scalpels & Razor Blades Pasteur Pipettes Slides & Cover slips Syringes (do not remove needles!) Lancets</p>	<p>Sharps Container</p>  <p>Biohazard Waste</p> 
<p>Cultures & Disposables</p>  <p>Contaminated: Petri Dishes (plastic) Gloves Paper Towels Disposable Culture Flasks (plastic) Band-aids Pipette tips</p> <p>Contaminated Serological Pipettes</p> <p>Contaminated liquid wastes in container</p>	<p>Biohazard container with liner</p>  <p>Biohazard Waste</p>  <p>Sharps Container</p>  <p>Plastic</p> <p>Glass</p> <p>Container with liquid removed Dilute liquid with Bleach 1:10 (Final conc. 0.5% Sodium hypochlorite); let sit 8+ hours</p>  <p>Dispose in sewer with running water</p>
<p>Broken Glass</p>  <p>Uncontaminated: Glassware Test tubes</p> <p>Does NOT include Pasteur Pipettes, slides, cover slips or any contaminated glass. These should be treated as Sharps</p>	<p>Broken Glass Container</p>  <p>Recycling</p> 
<p>Animals</p>  <p>Non-Exposed*: Animal corpses Preserved specimens[†] Animal wastes</p> <p>Exposed*: Animal corpses Animal wastes</p> <p><small>*Animal corpses or waste known or suspected to have been exposed to agents infectious to humans are considered biohazardous. †Used Formalin preservative fluids may be discharged into the sewer system with water. Formaldehyde should be treated as a hazardous waste.</small></p>	<p>Regular Waste Stream</p>  <p>Biohazard container with liner</p>  <p>Biohazard Waste</p> 
<p>For more information or final disposal contact : Natural Sciences Lab Manager, x2189 Waste Coordinator, x3561</p>	

Approved Reviewed Revised

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"Note - The signed copy of this procedure is filed in the Facility Service Department. By signing this policy you have agreed to enforce the contents and adhere to standards".