Infectious Waste Management Plan

This document is intended to provide basic guidelines for the handling and disposal of infectious waste at Community College of Allegheny County. The information provided in this guide may vary by site.

Version 1.0
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I. DEFINITION OF INFECTIOUS WASTE

Infectious waste is municipal and residual waste which is generated in the diagnosis, treatment, immunization or autopsy of human beings or animals, in research pertaining thereto, in the preparation of human or animal remains for interment or cremation, or in the production or testing of biologicals, and which falls under one or more of the following categories:

1. **Cultures and stocks** of infectious agents and associated biologicals, including the following: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines except for residue in emptied containers; and culture dishes, assemblies and devices used to conduct diagnostic tests or to transfer, inoculate and mix cultures.

2. **Pathological wastes.** Human pathological wastes, including tissues, organs and body parts and body fluids that are removed during surgery, autopsy, other medical procedures or laboratory procedures. The term does not include:
   - Hair, nails or extracted teeth.
   - Human blood and body fluid waste.
   - Liquid waste human blood.
   - Blood products.
   - Items saturated or dripping with human blood. Items that were saturated or dripping with human blood that are now caked with dried human blood, including serum, plasma and other blood components, which were used or intended for use in patient care, specimen testing or the development of pharmaceuticals.
   - Intravenous bags that have been used for blood transfusions.
   - Items, including dialysate, that have been in contact with the blood of patients undergoing hemodialysis at hospitals or independent treatment centers.
   - Items saturated or dripping with body fluids or caked with dried body fluids from persons during surgery, autopsy, other medical procedures or laboratory procedures. Specimens of blood products or body fluids, and their containers.

3. **Animal wastes.** Contaminated animal carcasses, body parts, blood, blood products, secretions, excretions and bedding of animals that were known to have been exposed to zoonotic infectious agents or nonzoonotic human pathogens during research (including research in veterinary schools and hospitals), production of biologicals or testing of pharmaceuticals.

4. **Isolation wastes.** Biological wastes and waste contaminated with blood, excretion, exudates or secretions from:
   - Humans who are isolated to protect others from highly virulent diseases.
   - Isolated animals known or suspected to be infected with highly virulent diseases.

5. **Used sharps.** Sharps that have been in contact with infectious agents or that have been used in animal or human patient care or treatment at medical, research or industrial laboratories.
Definition Of Infectious Waste, continued

Exceptions to the definition of infectious waste include:

- Wastes generated as a result of home self-care.
- Human corpses, remains and anatomical parts that are intended for interment or cremation or that are donated and used for scientific or medical education, research or treatment.
- Etiologic agents being transported for purposes other than waste processing or disposal pursuant to the requirements of the United States Department of Transportation, the Pennsylvania Department of Transportation and other applicable shipping requirements.
- Samples of infectious waste transported offsite by commonwealth or United States government enforcement personnel during an enforcement proceeding.
- Body fluids or biologicals which are being transported to or stored at a laboratory prior to laboratory testing.
- Ash residue from the incineration of materials if the incineration was conducted in accordance with infectious waste monitoring requirements. The ash residue shall be managed as special handling municipal waste.
- Reusable or recyclable containers or other nondisposable materials if they are cleaned and disinfected or if there has been no direct contact between the surface of the container and materials. Laundry or medical equipment shall be cleaned and disinfected in accordance with the U.S. Occupational Safety and Health Administration requirements relating to bloodborne pathogens.
- Soiled diapers.
- Mixtures of hazardous waste and other materials identified in the regulations shall be managed as hazardous waste and not as infectious waste.
- Mixtures of materials identified in the regulations and regulated radioactive waste shall be managed as radioactive waste in accordance with applicable commonwealth and federal statutes and regulations.
- Mixtures of materials identified in the regulations and chemotherapeutic waste shall be managed as chemotherapeutic waste.

II. MANAGING INFECTIOUS WASTE

The Pennsylvania Department of Environmental Protection (DEP) has comprehensive rules for the management of infectious waste. The rules include requirements for storage, transport, disposal, licensing and processing.

A. Storage Requirements

Infectious and chemotherapeutic waste shall be stored and contained in a manner that:

- Maintains the integrity of the containers, prevents the leakage or release of waste from the containers and provides protection from water, rain and wind;
- Prevents the spread of infectious or chemotherapeutic agents;
- Affords protection from animals and does not provide a breeding place or a food source for insects or rodents;
- Maintains the waste in a non-putrescent state;
- Prevents odors from emanating from the container; and
Managing Infectious Waste, continued

- Prevents unauthorized access to the waste. As part of this requirement, the following shall be met:
  1. Enclosures and containers used for storage of infectious or chemotherapeutic waste shall be secured to deny access to unauthorized persons. Enclosures and containers shall also be marked with prominent warning signs indicating the storage of infectious or chemotherapeutic waste.
  2. Enclosures at a waste generating or processing facility that are used for the storage of infectious or chemotherapeutic waste shall be constructed of finish materials that are impermeable and capable of being readily maintained in a sanitary condition. Storage areas shall be ventilated to minimize human exposure to the exhaust air.
  3. Infectious and chemotherapeutic waste may not be commingled with other waste.
  4. The generator may store infectious and municipal waste that has been sorted and separately containerized on the same cart for movement to an onsite processing or disposal facility.

Sorting
Used sharps, regardless of whether they are infectious or chemotherapeutic waste, may be stored in the same container.

Infectious waste shall be sorted at the point of origin in the generating facility into the following three classes, and each class shall be placed in a separate container:
1. Used sharps.
2. Fluid quantities greater than 20 cubic centimeters.
3. Other infectious waste.

Chemotherapeutic waste shall also be sorted at the point of origin in the generating facility into the same classes. However, fluids must be separated regardless of the volume.

Sorted and separately containerized infectious waste may be placed together into another container for onsite handling or offsite transportation.

Storage for Infectious Waste for Generators
Generators of infectious or chemotherapeutic waste may store the waste onsite according to the following requirements:
- Infectious waste, excluding used sharps, may be stored at room temperature until the storage container is full, but for no longer than 30 days from the date the waste was first placed in the container. If the infectious waste becomes putrescent during the storage period, the waste shall be moved offsite within 24 hours for processing or disposal.
- A storage container filled with infectious waste may be stored in a refrigeration unit for up to 30 days from the date the waste was first placed in the container.
- A storage container of infectious waste that has been filled within 30 days from the date the waste was first placed in the container may be frozen immediately for up to 90 days from the date the waste was first placed in the container.
- Used sharps containers may be used until full as long as the storage is in accordance with basic storage requirements.
Managing Infectious Waste, continued

Storage Containers
Infectious and chemotherapeutic waste shall be placed in containers that are leak proof, impervious to moisture and sufficient in strength to prevent puncturing, tearing or bursting during storage.

In addition to the above requirements, used sharps shall be stored in containers that are rigid, tightly lidded, and puncture resistant.

In addition, infectious waste fluids in quantities greater than 20 cubic centimeters and chemotherapeutic waste fluids, shall be stored in containers that are break-resistant and tightly lidded or tightly stoppered.

When bags are used as the only storage container, double or multiple bagging shall be used, and the following requirements shall be met:
1. Upon packaging, bags shall be securely tied.
2. The bag shall be constructed of material of sufficient single thickness strength to meet DEP requirements and ASTM standards. The bags shall be certified.

B. Labeling
The outermost container of each infectious waste package for off-site transportation must be immediately labeled:
1. Label must be securely attached and legible
2. Indelible ink must be used to complete the information on the label
3. If handwritten, 3” x 5” in size

Label information must contain the following:
1. Name, address and telephone number of generator
2. Date the waste was generated
3. Name of transporter

The outermost container or bag of each infectious waste package for either onsite or offsite movement must contain the following information:
1. The words “infectious waste”
2. Universal biohazard symbol
3. Date the waste was generated

C. Waste Removal
During the semester, infectious waste must be picked up at a minimum of once a month. All other times, pickups are on a “will call” basis.

D. Recordkeeping
Manifests: The signer of the manifest must ensure that all information is correct before signing. The signer will be the one contacted by the DEP in the event of an issue with the waste. The following information must be on the manifest:
1. Name, mailing address and telephone number of the generator
2. Total number of pages
Managing Infectious Waste, continued

3. Each transporter’s company name, identification number, Pennsylvania infectious and chemotherapeutic waste transporter license number and telephone number
4. Number of containers, types of containers and the total quantity of the waste by weight or volume
5. Infectious waste code number for each waste indicated on the manifest
6. United States Department of Transportation proper shipping name, hazard class and identification number for each waste, if applicable
7. Special instructions and information necessary for proper handling of the waste during transportation, shipping, storage or disposal, if any
8. The printed or typed name of the handwritten signature of the generator’s authorized representative and the date of shipment
9. The printed or typed name and handwritten signature of the initial transporter’s authorized representative and the date of receipt
10. The designated facility’s name, site address, Pennsylvania State permit or identification number and telephone number
11. An authorized representative of the generator shall ensure that the manifest has been completed and shall read the certification statement on the manifest prior to signing the manifest.
12. Before the waste is transported offsite the generator shall ensure that the required information on all parts of the manifest are capable of being read.

Copy four of the manifest is retained by the generator upon shipment of the infectious waste. Please maintain this copy to file.

Copy one is mailed to the generator by the owner/operator of the processing or disposal facility. The lab manager ensures that this copy is available within the required 20-day period.

Copy one must be received by the generator within 20 days of the date the generator’s waste was accepted by the initial transporter. If the manifest is not received:
   a. Generator must contact the transporter or owner or operator of the designated facility or both to determine the status of the infectious waste
   b. Notify the regional PA DEP office by telephone within one business day of the status of the shipment
   c. If the manifest is not received within 35 days of the date, the generator must notify by telephone the regional PA DEP office and submit an exception report to the PA DEP’s central office that includes:
      1. A legible copy of the unsigned manifest
      2. Cover letter explaining the efforts undertaken to located the waste shipment and the results

All manifests must be maintained for five years from the date of shipment.

A file containing waste management policies and procedures will be maintained by our lab manager and can be reviewed at our facility. All autoclave records, test data, management correspondence and spill/training logs must be retained for a minimum of five years on-site.
III. **SPILL AND/OR ACCIDENT**

In the event of a chemical spill or laboratory accident, immediately notify the laboratory technician, campus health care center or the area supervisor if the spill is in an area other than a laboratory. Also notify the campus security office for direction of emergency response personnel. Isolate the area.

Allow only those persons qualified to handle spill control, laboratory accidents and cleanup into the contaminated area. The necessary protective clothing equipment is required to be worn.

Follow instructions on SDS or laboratory safety sheets. Notify emergency response personnel if the accident material or chemical so requires.

When possible, remove victim(s) to a safe area. Treat persons who have been in contact with hazardous material(s) in accordance with instructions on the SDS or laboratory safety sheet(s).

Contain the leak if it can be done without risk.

Do not touch or walk through the spill.

When possible, isolate the spill within the spill space. Take measures to prevent the spill from entering sewers, drains, confined areas or equipment.

Eliminate all sources of ignition, open flames, sparks, etc., in the area.

If required, shut down HVAC systems to prevent odor release to other areas.

Use an appropriate non-combustible, dry absorbent to clean the spilled material. Transfer the material to appropriate containers.

Ensure that all contamination has been removed and risk negated prior to re-opening the area for use.

Evacuation assembly points should take into consideration the possibility of drifting fumes and should be located upwind of same.
IV. SUMMARY CHART

Infectious Waste Disposal Summary Chart

<table>
<thead>
<tr>
<th>Type of Waste</th>
<th>Type of Container</th>
<th>Local Treatment</th>
<th>Final Disposal</th>
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<tbody>
<tr>
<td>Sharps</td>
<td>Red Biohazard Sharps Container</td>
<td>None. Place sharps items, intact, directly into sharps receptacle immediately after use without recapping. Sharps container must not be filled more than 3/4 full. When container is 3/4 full, close container tight and seal by taping cover.</td>
<td>Containers are stored in a secure area until shipped to, or picked up for disposal by, an approved processing facility.</td>
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<tr>
<td>Contaminated Non-Sharps Items</td>
<td>Red Biohazard Plastic Bag</td>
<td>None. Place contaminated non-sharps items directly into a red bag container immediately after use. When container is full, close red bag tight and seal with a twist tie.</td>
<td>Containers are stored in a secure area until shipped to, or picked up for disposal by, an approved processing facility.</td>
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<td>Dissection Parts</td>
<td>Pathological waste is not generated in this lab. All preserved specimens for dissection are preserved in Carosafe or Carolina's Perfect Solution.</td>
<td>All animal dissection waste is placed in lined animal waste buckets at the end of every lab.</td>
<td>Regular waste stream as trash.</td>
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<tr>
<td>Contaminated Broken Glass</td>
<td>Red Biohazard Sharps Container</td>
<td>None. Place sharps items, intact, directly into sharps receptacle immediately after use without recapping. Sharps container must not be filled more than 3/4 full. When container is 3/4 full, close container tight and seal by taping cover.</td>
<td>Containers are stored in a secure area until shipped to, or picked up for disposal by, an approved processing facility.</td>
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V. **TRAINING**

Waste management training will be implemented upon institution and development of the plan when new employees are hired and when management procedures are changed. Continuing education will be provided at least annually to refresh and maintain personnel awareness of the potential hazards associated with waste.
Training: Infectious Waste Management Plan

I have read and understand, or have received instruction regarding the waste management policies and procedures of this facility.

Facility/Department Name: ____________________________________________________________

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