

<b>Johns Hopkins Safety Manual</b>	<i>Policy Number</i>	<b>HSE 805</b>
<i>Subject:</i>	<i>Last Review Date</i>	9/28/11
<b>Laboratory Waste Disposal</b>	<i>Page</i>	1 of 4

## POLICY

It is the policy of Johns Hopkins that all waste generated by laboratories be properly and safely segregated and disposed of in accordance with all applicable Federal and State regulations. This policy does not apply to the disposal of radioactive materials (See HSE Policy 908: Disposal of Radioactive Materials) or to the disposal of chemical waste (See HSE Policy 703: Management of Hazardous Chemicals). Moreover, it does not apply to waste generated in patient care areas of the hospital (See HSE Policy 805H: Medical Waste Disposal (JHH) ).

To prevent injury and the transmission of disease, all waste generated in laboratories must be discarded into the appropriate sharps container, red bag, or red bag-lined biohazard box. Clear or black plastic bags for office waste are not permitted in laboratories. However, labeled containers for recycling paper and certain plastic items are permitted in most laboratories for those divisions within the Institution which have a laboratory waste recycling program in place. Recycling is never permitted in BSL3 labs or in vivariums anywhere within the Institution. Refer to the recycling guidance document for more information. [http://www.sustainability.jhu.edu/resources/greening\\_your\\_lab.html](http://www.sustainability.jhu.edu/resources/greening_your_lab.html)

### I. SHARPS DISPOSAL:

#### **Definition/ Guidelines:**

Sharps are any material that can puncture or cut human skin (such as syringes with needles, needles alone, small glass objects, Pasteur pipettes and razor blades). ALL sharps must be discarded into an approved sharps container. Needles and other sharps are never to be discarded directly into a red bag, red bag-lined biohazard box or into other waste streams.

All needles and sharps must be discarded directly into approved sharps disposal containers. Containers for the disposal of sharps shall be limited to those approved by the Joint Committee for Health, Safety and Environment. All sharps containers must be appropriately sealed prior to disposal to prevent spillage.

#### **Guidelines for the safe handling of sharps:**

1. Sharps are never to be discarded directly into the regular trash.
2. Needles are not to be clipped or bent.
3. Needles are not to be recapped by a "two-handed method".
4. The user shall be responsible for proper sharps disposal. Sharps shall not be left on furniture, equipment or counter tops.
5. Sharps should never be carried in pockets. Needles used at a distance from a disposal container shall be transported safely to the disposal area by using a puncture-resistant basin or similar container.
6. Disposal containers shall not be overfilled. Filled containers shall be properly sealed and disposed of in receptacles lined with a red bag.
7. Sharps disposal containers are puncture resistant, not puncture proof. Filled containers are to be handled with caution; sharps may penetrate under certain conditions.

#### **Guidelines for utilization of approved sharps containers:**

1. Syringe units with needles permanently attached, needles alone, and all other sharps are discarded directly into the container.
2. The container should be placed in all labs, rooms and areas where sharps are utilized.
3. The lid on the container is to be left off until the container is ready for disposal. Do not close after each use. When sharps reach maximum fill level designated on container, usually 1 -2 inches below the top, secure lid over opening by screwing cap until tight.
4. Sharps used at a distance from the disposal container are to be carried safely to the disposal container by use of a puncture-resistant basin or other similar container.

#### **Guidelines for disposal of sharps containers:**

1. Sharps containers are to be inspected prior to use to avoid overfilling or injury.
2. Filled containers are closed as appropriate and replaced.

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3. All filled containers are considered to be infectious waste and should, after being properly capped or closed, be placed in receptacles lined with red bags.
4. Handle with caution. Sharps containers are puncture resistant, not puncture proof.

**Utilization of Approved Sharps Containers:**

- A. Six-Quart or Ten-Quart Plastic Container: JHH PPM # 3269  
JHU Cat.# 100402
  1. The lid on the six-quart and ten-quart container shall be left open until the container is ready for disposal. Do not close after each use. When sharps reach maximum fill level designated on container, secure lid over opening by screwing cap until tight.
  2. Secured sharps containers shall be discarded as medical waste in red bags or approved red bag-lined Biohazard boxes
- B. 5 oz. Phlebotomy Container: JHH PPM# 20400
  1. Needles are unscrewed directly into the container.
  2. Once the needle has been removed, syringes and needle caps may be discarded directly into the red bag receptacle designated for medical waste.
- C. Other Approved Sharps Containers
  1. PPM# 4768 1 quart
  2. PPM# 1975 2 gallon
  3. PPM# 6134 18 gallon Sage floor model
  4. PPM# 3704 8 gallon Sage floor model
  5. PPM#25115 3 gallon Sage red rotor top

**Needlesticks and Exposure to Biohazards**

All needlesticks and exposures to sharps must be reported immediately by calling the Needlestick Hotline 5-STIX (955-7849) for the East Baltimore Campus,. For the Homewood campus, call Occupational Health (6-0450) during office hours and Security (6-7777) during off-hours, Employees on the Bayview campus can either call 5-STIX or Bayview Employee Health at 0-0477 (for BBP exposures only). An incident report must be filed. Specific details concerning the type of sharp and the actual occurrence should be listed to identify practices or types of equipment which may need to be modified.

Problems involving a particular type of sharp or procedure which may cause exposures to blood-borne pathogens should be brought to the attention of Health, Safety and Environment (5-5918).

**REFERENCES**

- CFR 1910.1030 OSHA Bloodborne Pathogen Standard
- Johns Hopkins Safety Manual: Bloodborne Pathogens Control Program, HSE 501
- Johns Hopkins Safety Manual: Occupational Injury Management, HSE 005

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II. MEDICAL (BIOLOGICAL) WASTE DISPOSAL:

**Definition/ Guidelines:**

Articles or materials potentially contaminated with or containing body fluids; all anatomical material; and any item containing a biohazard symbol or warning. All materials with a potential to be perceived by the reasonable public as medical waste shall be treated as such. All medical waste shall be discarded in red bags or approved biohazard boxes lined with a red bag and shall be disposed of by incineration or other approved method.

**Utilization of Approved Biohazard Boxes:** JHH PPM# 6090, JHU No. 100254

- A. A Biohazard Box shall be utilized for all medical/biological waste, including all labware, pipettes and autoclaved material.
1. Each Biohazard Box must be lined with a red bag.
  2. Once the box is two-thirds full, it shall be sealed. First the red bag liner is sealed with tape. Then close the box's lid and securely seal with tape. The red bag liner should never be removed, and always is disposed of within the box.
  3. Questions on proper box assembly may be directed to HSE 5-5918.

**REFERENCES**

Code of Maryland Regulations 10.06.06: Communicable Disease Prevention - Handling, Treatment and Disposal of Special Medical Waste  
 CFR 1910.1030 OSHA Bloodborne Pathogen Standard  
 Johns Hopkins Safety Manual: Bloodborne Pathogens Control Program, HSE 501

III. LABORATORY WASTE DISPOSAL:

**Definition/ Guidelines:**

Laboratory waste consisting of contaminated glass, rigid plastic, autoclaved waste, and other solid materials must be discarded into an approved red bag-lined biohazard box. Each biohazard box must be lined with a red bag. The red bag liner must never be removed from the box and is always discarded with the box.

Cultures of bacteria, fungi, viruses, protozoa, insects, and fluids or tissue containing microorganisms or insects, must be decontaminated by autoclaving for at least an hour in an approved, orange, polypropylene autoclave bag. Autoclaving may not be required for non-infected tissue cultures that do not contain microorganisms. Autoclaved material must be discarded into an approved red bag-lined biohazard box.

Uncontaminated paper products, such as catalogs, journals, computer and notebook paper, newspapers, and cardboard boxes, as well as certain uncontaminated plastic products (pipette tip racks and bottles which did not contain hazardous chemicals or biological materials) can be disposed of in clearly labeled recycling containers.

For disposal of laboratory equipment, refer to HSE 810 (Laboratory Equipment Clearance Policy). For clearance of laboratories prior to renovations, refer to HSE 809 (Laboratory Clearance Policy). **Utilization of Approved Biohazard Boxes:**

Approved containers can be purchased from JHH Central Stores or the JHU Supply Store:

Biohazard Box with Red Bag	JHH PPM No. 6090	JHU No. 100254
Bags, Autoclave Small 19" x 23"	-----	JHU No. 100155
Bags, Autoclave Medium 25" x 35"		JHU No. 100156

Containers NOT approved for Laboratory Waste include clear office waste bags, black bags, clear autoclave bags, and ordinary boxes.

1. A cardboard Biohazard Box lined with a red bag serves as a receptacle for laboratory waste, particularly contaminated glassware, plasticware, pipettes, all autoclaved material and sealed sharps disposal containers.
2. Each Biohazard Box must be lined with a red bag.

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- Once the box is two-thirds full, it should be sealed. Use caution. First the red bag liner is sealed with tape. Then close the box's lid and seal lid with tape. The red bag liner should never be removed, and always is disposed within the box.

### **REFERENCES**

Code of Maryland Regulations 10.06.06: Communicable Disease Prevention - Handling, Treatment and Disposal of Special Medical Waste  
 CFR 1910.1030 OSHA Bloodborne Pathogen Standard  
 Johns Hopkins Safety Manual: Bloodborne Pathogens Exposure Control Program, HSE 501  
 Johns Hopkins Safety Manual: Occupational Injury Management, HSE 005

### **RESPONSIBILITIES**

All Laboratory Staff	Properly segregate and dispose of all materials.
Departmental Management	Enforce this policy.
Health, Safety and Environment	Monitor compliance with policy during environmental surveys. Approve variety of sharps containers available. Provide direction regarding handling and disposal of medical waste. Lab clearance prior to renovation work. Inspect and clear laboratory equipment for disposal
Materials Management	Maintain supply of approved sharps and other waste containers.

### **REVIEW CYCLE**

Annually