

Johns Hopkins Safety Manual	<i>Policy Number</i>	HSE 805
<i>Subject:</i> Laboratory Waste Disposal	<i>Last Review Date</i>	09/23/08
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POLICY

It is the policy of Johns Hopkins that all solid materials generated by laboratories shall be properly discarded into appropriate receptacles. This policy does not apply to radioactive materials (See HSE Policy 908: Radioactive Material Disposal) or those materials meeting the definition of hazardous chemicals (See HSE Policy 703: Management of Hazardous Chemicals). Furthermore, it is the policy of Johns Hopkins to dispose of all medical waste in accordance with the “Guidelines for the Handling, Treatment, and Disposal of Special Medical Waste” as generated by the Maryland Department of Health and Mental Hygiene.

To prevent injury and the transmission of disease, all waste generated in both laboratory and medical settings must be discarded into the appropriate sharps container, red bag, or red bag-lined biohazard box. Clear/black plastic bags for office waste are not permitted in the laboratory.

I. SHARPS DISPOSAL:

Definition/ Guidelines:

Sharps are any material that can puncture or cut human skin or a red trash bag (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. An approved sharps container shall be placed in all patient rooms (except psychiatric and certain pediatric rooms), medication rooms, soiled utility areas, and all other areas where sharps are utilized. 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, 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.
3. All filled containers are considered to be infectious waste and should, after being properly capped or closed, be

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- 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 ESI # 3269 and 3011
JHU Cat.# 504491
 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 (ESI# 6090)
- B. Sage Sharps Container for use in areas accessed by patient and visitors:
JHH ESI# 24387 (3 gallon), , ESI#46039 (4 gallon), # 24386 (5 quart)
 1. Insert sharps horizontally and lift tray to assure complete disposal.
 2. When the lid indicates FULL, lock by depressing top two tabs.
 3. Discard as medical waste in red bags.
- C. 5 oz. Phlebotomy Container: JHH ESI# 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.
- D. Other Approved Sharps Containers
 1. ESI# 4768 1 quart
 2. ESI# 1975 2 gallon
 3. ESI# 25523 Large Vol floor model
 4. ESI# 6134 18 gallon Sage floor model
 5. ESI# 3704 8 gallon Sage floor model
 6. ESI# 4768 1 qt Sage

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, 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 Exposure Control Program, HSE 501
- Johns Hopkins Safety Manual: Laboratory Waste Disposal, HSE 802
- Johns Hopkins Safety Manual: Occupational Injury Management, HSE 005
- Johns Hopkins Safety Manual: Disposal of Glass, HSE 023

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II. MEDICAL 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 medical waste. 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 ESI# 6090, JHU Cat. No. 504591

- A. A. The Biohazard Box shall be utilized for hazardous drug waste and specified laboratory waste, particularly all glassware, 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 Exposure Control Program, HSE 501

III. LABORATORY WASTE DISPOSAL:

Definition/ Guidelines:

Laboratory waste consisting of 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.

Other laboratory waste may be discarded into a red bag with a 3 mm equivalent thickness.

Laboratories involved in incidents caused by improper disposal of laboratory waste will thereafter be required to discard all laboratory waste into approved red bag-lined biohazard boxes.

Prior to the disposal of large laboratory equipment or laboratory renovations it shall be shown to be free all hazards. HSE shall be contacted before to the disposal of the equipment or the start of renovations to verify the equipment or purposed area of renovation poses no hazard to employees or contractors. That verification shall be posted on the equipment or entrance to the area in the form of the "Clearance Notice."

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 ESI No. 6090	JHU No. 504591
Bags, Autoclave Small 19" x 23"	-----	JHU No. 505001 pack of 25
		JHU No. 505002 case of 200

Containers NOT approved for Laboratory Waste include clear office waste bags; black bags; clear autoclave bags; recycling containers for cans, glass or paper; broken glass boxes; and ordinary boxes.

1. A cardboard Biohazard Box 11"x17"x27" (JHU Cat.# 504591, JHH ESI #6090) lined with a red bag serves as a

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receptacle for laboratory waste, particularly contaminated glassware, plasticware, pipettes, all autoclaved material and sealed sharps disposal containers. The Biohazard Box also serves as a disposal container for waste materials contaminated with antineoplastic agents and other hazardous drugs.

2. Each Biohazard Box must be lined with a red bag.
3. 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: Disposal of Sharps and Medical Waste, HSE 024
- Johns Hopkins Safety Manual: Occupational Injury Management, HSE 005
- Johns Hopkins Safety Manual: Disposal of Glass, HSE 023

RESPONSIBILITIES

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| 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. |
| Materials Management | Maintain supply of approved sharps containers. |

REVIEW CYCLE

Annually