

University of Idaho Institutional Biosafety Committee Policy, Procedure, and Guideline Bio Waste and Sharps Disposal

# Biohazardous Waste and Sharps Disposal

## Preamble

Biohazardous sharps and other biohazardous waste must be handled in specific ways, in order to comply with institutional, local, state and federal laws, policy and guidelines. This policy will outline how to safely and compliantly dispose of biohazard contaminated sharps and other biohazard contaminated waste.

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#### I. Definitions

A. Biohazard: Any bacteria, recombinant DNA, synthetic DNA, recombinant (genetically modified) organisms, fungi, viruses, rickettsia, chlamydiae, parasites, allergens, viroids, virions, and prions that can be harmful to humans, animals, plants, or the environment.

B. Biosafety Level: The level of containment, on a scale of BSL-1 to BSL-4, under which the biohazard can be safely handled. As the biosafety level rises, the standards for laboratory practices, equipment, and facilities increase. The containment levels for animals housed in biosafety laboratories are called animal biosafety levels (ABSL). The NIH Guidelines and Biosafety in Microbiological and Biomedical Laboratories Manual define the minimum standards that must be met at each biosafety level.

C. Biohazardous Waste: Cultures, stocks, sharps, PPE, or any other item contaminated with a biohazard or pathological waste, including blood, body fluids, and animal or human tissues, excludes teeth and fixed tissues.

D. Sharps – needles, scalpels, pipette tips, biopsy punches, disposable surgical instruments, razor blades, capillary tubes, or any other item that could cause wounding to personnel, or punctures of soft sided disposal, storage, or container(s).

## II. Scope

This policy applies to Biosafety level 2 and lower laboratories that produce biohazardous waste, including biohazardous sharps waste, at any UI campus or research center.



## III. Policy

This policy ensures compliance with institutional, local, state, and federal mandates for the handling of biohazardous waste and biohazardous sharps.

## **IV. Procedures – Decontamination**

All biohazardous waste must be properly decontaminated\* prior to disposal: Please note: if the waste is also considered a chemical hazard or planned to be mixed with a chemical considered to be hazardous waste for decontamination, contact EHS for assistance **prior to decontamination** and disposal.

- A. Biohazardous liquid waste
  - 1. Method 1:

a) Add appropriate disinfectant for contact time, as specified in your laboratory specific biosafety manual

b) Once contact time is completed, dispose of by pouring down the drain to sanitary sewer, or in accordance with disinfectant requirements

2. Method 2:

a) Autoclave on liquid cycle, using your laboratory specific biosafety manual to determine appropriate temperature and time of cycle

b) Prior to autoclaving, container of biohazardous liquid must be labelled a biohazard, autoclave tape must be applied to container, and it must be placed in a secondary, autoclavable, high-walled, leak proof container to avoid overflow of biohazardous materials into autoclave

c) After autoclaving, allow to cool, and use heat resistant gloves to remove the containers from autoclave

d) After decontamination is complete, dispose of by pouring down the drain to sanitary sewer

## B. Biohazardous solid waste

1. Place in leak-proof autoclavable biohazard bag that is clearly labelled with the universal biohazard symbol

2. Autoclave or incinerate, as indicated for the agent and specified in the lab specific biosafety manual

a) Prior to autoclaving, place an "x" in autoclave indicator tape over the universal biohazard symbol

b) After autoclaving, place biohazard bag into a black trash bag, and seal prior to disposal

c) Laboratory staff immediately dispose of properly bagged waste in the standard waste stream (e.g. dumpster)

## C. Biohazardous sharps waste

1. Place in hard-walled, puncture resistant, leak-proof, sealable container that is clearly labelled with the universal biohazard symbol



Note: Sharps containers are single use containers and should not be emptied and reused.

- 2. Autoclave or incinerate, as indicated for the agent and specified in the lab specific biosafety manual
  - a) Prior to autoclaving, place an "x" in autoclave indicator tape over the universal biohazard symbol, or over the sharps label
  - b) After autoclaving, place biohazard container into a cardboard box, seal well with tape, and label box as "decontaminated sharps"
  - c) Laboratory staff immediately dispose of properly labelled and well-sealed box in the standard waste stream (e.g. dumpster)

## V. References

- A. Biosafety in Microbiological and Biomedical Laboratories
- B. University of Idaho Institutional Biosafety Committee Policies as listed at <a href="https://www.uidaho.edu/research/faculty/research-assurances/biosafety/procedures-checklists/policies">https://www.uidaho.edu/research/faculty/research-assurances/biosafety/procedures-checklists/policies</a>

\*Methods of decontamination not listed in this policy may be approved by the IBC through the protocol or biosafety manual review process.