Introduction

This guide describes the procedures for treatment and disposal of biological waste at Eastern Washington University's (EWU) Main Campus in Cheney, Washington and the Riverpoint Campus in Spokane, Washington. Environmental Health and Safety (EH&S) is tasked with managing the handling, storage, and disposal of all biological wastes generated at these facilities.

Definitions

Biohazardous agent refers to an agent that is biological in nature, capable of self-replication, and has the capacity to produce deleterious effects upon biological organisms. Biohazardous agents include, but are not limited to; bacteria, fungi, viruses, rickettsiae, chlamydia, prion, parasites, recombinant products, allergens, cultured human, and animal cells and the potentially biohazardous agents these cells may contain, infected clinical specimens, tissue from experimental animals, plant viruses, bacteria and fungi, toxins, and other biohazardous agents as defined by State and Federal regulations.

Biological waste is any material that contains or has been contaminated by a biohazardous agent. Biological waste includes, but is not limited to, petri dishes, surgical wraps, culture tubes, syringes, needles, blood vials, absorbent material, personal protective equipment, and pipette tips.

Sharps are items that are capable of puncturing, cutting, or abrading the skin. Sharps include, but are not limited to, glass and plastic pipettes, broken glass, test tubes, razor blades, syringes, and needles. See the Sharps Disposal Guidance for more details.

Animal Carcasses refer to any animal parts or whole animals that have been used for routine experimentation and are not subject to chemical contamination, radioactive contamination, or biohazard experimentation. All uncontaminated animal carcasses can be placed in standard plastic garbage bags and properly labeled as to what they are and which lab they originated from. Contact EH&S for a pickup.

Waste Types

Biological versus Chemical Waste

Biological waste must be managed separately from chemical waste. The most common example where chemical waste is mistaken for biological waste is agarose gel contaminated with ethidium bromide or heavy metals (i.e., arsenic, chromium). This type of material should always be managed as chemical waste. When both chemical and biological waste types exist, the biological agent(s) should be treated first. Once the biological agents have been deactivated by either autoclave or chemical disinfection, the remaining chemical waste should be submitted on a Hazardous Waste Pickup Request Form. Anything that is radioactive will be handled as radioactive materials.

Sharps

All sharps should be placed into properly labeled sharps containers or other rigid, puncture-proof containers. Make sure the container is sealed, labeled, and undamaged. Contact EH&S for a pickup.

Contaminated sharps should be managed as follows:

- Biological contaminated sharps should be treated and managed following the Biological Waste Disposal and Pickup Procedures found on the next page.

- Chemical contaminated sharps should be submitted to EH&S on a Hazardous Waste Pickup Request Form.
- Biological and chemical contaminated sharps should be treated first as a biological waste. Once the biological agents have been deactivated by either autoclave or chemical disinfection, the remaining chemical waste should be submitted on a Hazardous Waste Pickup Request Form.

Liquid Waste:

Liquid biological waste should be collected in containers for autoclaving or chemical disinfection (See Autoclave Safety Guidance). Autoclaved liquid wastes must be cleared by EH&S prior to being sent down the drain. Chemically disinfected liquids must be approved by EH&S for sink disposal. Do not pour melted agarose down the drain. Allow it to cool and solidify, then dispose of it as solid waste in biohazardous waste bags.

Solid Waste:

Solid biological waste, including solidified agarose gels, should be collected in appropriate biohazardous waste autoclave bags. Once the waste has been autoclaved or chemically disinfected, the autoclave bags should be taped or tied shut and placed inside the biohazard disposal bins provided by EH&S. Gowns and gloves placed in the biohazard box must not be compacted by hand or foot. Use a bathroom plunger or similar item to compact the material into the box. All cardboard boxes must be lined with a red biohazard bag. Do not mix sharps, agar or gowns/gloves together in the same box.

Biological Waste Disposal and Pickup Procedures

1. Determine whether the biological waste is Category 1 or Category 2.
   Category 1 biological waste includes any human-derived biological or substance known, assumed, or suspected of being infectious to humans, plants, or animals before treatment that may cause harm to the public if released into the environment. Category 1 biological waste also includes any material contaminated with an infectious substance and/or all items containing or contaminated with human blood or fluids. All Category 1 biological wastes must be treated by autoclave or with an appropriate chemical disinfecting agent such as bleach prior to pick up.
   Category 2 biological wastes, also known as "look-alike waste", are non-infectious and include material such as animal tissue, fluids, cell cultures and petri dishes not fitting the Category 1 description. Category 2 waste does not require treatment.

2. All solid biological waste, including sharps containers, must be placed into a cardboard box provided by EH&S. The box should be taped shut once it is full. Do not overfill the box; the box flaps should easily fold down onto the top of the box (See pictures below).

3. Once you are ready to have waste removed from your laboratory, complete a Hazardous Waste Pickup Request Form. and call EH&S at 509-359-2788 to schedule a pickup. Pickup usually occurs on the next working day. If necessary, regularly scheduled pickups can be setup throughout the week (i.e., pickup every Friday). Riverpoint waste boxes will be placed in the Hazardous Waste Collection Room in the basement. EH&S will arrange for a contractor pickup.

4. An EH&S technician will come to your lab and remove the waste. It is the responsibility of the lab personnel to construct each new box.

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CORRECT

Once the waste is picked up from campus locations, it is transported back to EWU Waste Transfer Facility where it is consolidated. A waste vendor routinely picks up and transports the waste to a nearby Subtitle D non-hazardous waste landfill. The landfill requires that all waste be non-infectious, free of EPA and Washington State regulated chemical waste, and contain no liquids.

Associated Documents

Autoclave Safety
EWU EH&S Chemical Safety Manual
EWU EH&S Hazardous Waste Pickup Request

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REVISION HISTORY		
Rev	**Affected Page(s)**	**Change Descriptions**
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1	All	Update to New Format 4/27/2017
2	All	Review and update as needed 2/26/25