

**Building****Title:** Regulated Medical Waste Handling Procedure**Number:**  
WH-SOP-02**Revision:** #4  
03-06-2023**1.0 Scope and Application:**

- 1.1** Appropriate disposal of Regulated Medical Waste (RMW) is everyone's responsibility, from the laboratory worker who generates the waste to the hauler who transports that waste to its final destination. Proper management reduces the level of concerns with respect to public health and environmental hazards associated with improper disposal of RMW. This procedure provides guidance for the collection, transport and removal of RMW in Weill Hall.

**2.0 Purpose:**

- 2.1** To provide a standard operating procedure for labs within Weill Hall to collect and dispose of regulated medical waste in a safe and responsible manner.

**3.0 Responsibilities:**

- 3.1 Facilities Director** – the Facilities Director or designee will ensure that this procedure is communicated to all building occupants and all affected parties.
- 3.2 Principal Investigator** – the Principal Investigator, along with their Lab Safety Representative, is responsible to ensure that their lab personnel are following this SOP and other Cornell Policies related to the handling of regulated medical waste.
- 3.3 Lab Safety Representative** – the Lab Safety Representative is responsible to ensure that their lab personnel are following this SOP and other Cornell Policies related to the handling of regulated medical waste.

**4.0 Procedures:****4.1 How to handle Regulated Medical Waste (RMW) generated in the lab:**

- 4.1.1** For instructions on how to properly prepare laboratory waste for disposal at Weill Hall, please follow Cornell's **Laboratory Waste Disposal Guide**, which is included as **Appendix A** to this procedure.
- 4.1.2** You can also refer to the **Visual Laboratory Waste Disposal Guide** found on Cornell's EH&S website at [https://ehs.cornell.edu/system/files/private/resource-files/Poster\\_Waste\\_Guide.pdf](https://ehs.cornell.edu/system/files/private/resource-files/Poster_Waste_Guide.pdf)
- 4.1.3** If you have any questions related to this guide, please contact EH&S at 255-8200 or Weill Hall Facilities at [whfs@cornell.edu](mailto:whfs@cornell.edu).

**4.2 What to do with RMW generated in the lab:**

- 4.2.1** Segregate the RMW into red biohazard bags (double bag) or sharps disposal containers.
- 4.2.2** Once the RMW bag or sharps container is full, it is the responsibility of each lab to transport this waste to Room B97 Weill Hall.
- 4.2.3** Waste should never be transported through the public office corridors, the atrium or passenger elevators. Always use the service elevators and basement corridors to reach the loading dock.
- 4.2.4** Waste bags should never be left on floors or other areas without secondary containment.
- 4.2.5** Seal bags with zip ties, twist ties, or tape and secure the lid on sharps disposal containers.
- 4.2.6** Attach a label to each bag or container which includes: 1) name, 2) building name/lab room number, and 3) phone number. You may use printer label sheets (such as Avery) and pre-print your lab group information. There are also blank labels and Sharpies in the B97 Waste Room for your convenience.
- 4.2.7** Don a pair of disposable gloves and place bags or containers in a tray or bin and use a laboratory cart to move the waste. Alternatively, you can use a covered secondary container. Make sure to remove at least one of your gloves while passing through doors or elevators to prevent your gloves from touching any door handles or elevator buttons.



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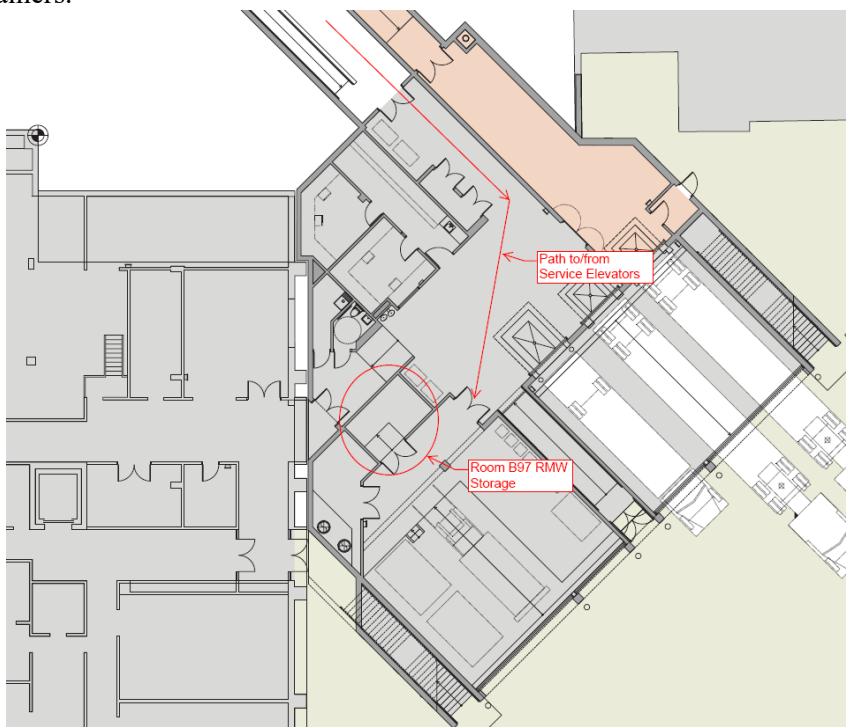
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**CAUTION: Do not hand carry your waste.**



4.2.8 Remove gloves and transport bags and containers to the RMW room B97 within the trash compactor room B82 at the loading dock area (see floor plan below). Room B97 contains several large bulk containers for RMW, and the bagged waste must be placed in one of these containers.



4.2.9 Don a clean pair of gloves, or use your remaining gloved hand, to transfer waste from your cart/container to the staged containers in the waste room.

4.2.10 Decontaminate any small spills (a few mls) or contaminated surfaces with a disinfectant. Contact EH&S (255-8200) in case of large spills or release of contaminated materials.



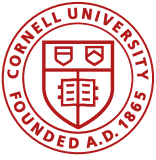
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- 4.2.11 EHS will pick up waste from room B97 twice per week, so it is not necessary to call EHS to schedule a pick up if waste is dropped off in this area.
- 4.2.12 If the waste containers in B97 are full or if there is any other problems noted with this area, please report the problem to EH&S at 255-8200 or Weill Hall Facilities at [whfs@cornell.edu](mailto:whfs@cornell.edu) immediately.



## Biological Waste Guide

### Laboratory Waste Disposal Guide

Use this guide to determine the appropriate disposal procedures for laboratory waste outside of the College of Veterinary Medicine. Consult any permits (APHIS, PPQ, CDC, etc.) held by the lab for waste handling guidance and comply with those requirements should they be more stringent than the guidance presented here.

Waste is considered **Contaminated with a Biohazard** if it contains or is potentially contaminated with human infectious agents, viral vectors used with human and animal cell culture, biologically-derived toxins, human blood and body fluids, all human and animal cell cultures, or fluids and tissues from infected animals.

Waste is considered **Contaminated with Recombinant or Synthetic Nucleic Acid (r/sNA)** if any recombinant or synthetic nucleic acids or genetically modified organisms (e.g., bacteria, plants, insects, and animals) are present. If also infectious, refer to Biohazard column.

Waste is considered **Contaminated with Other Biologicals** if the contents are not infectious to humans or animals, and are not considered r/sNA. It contains or is potentially contaminated with environmental microorganisms, plant and insect pathogens, or plant tissue cultures. If contaminated with chemical residue, refer to "Chemical" column.

Waste is considered **Contaminated with Chemicals** if disposable items have residual amounts of non-acutely toxic chemicals only (e.g., phenol, chloroform, acrylamide, xylene). For acutely toxic waste items, including the original containers from manufacturer, consult the Hazardous Waste Manual or contact EHS. Ethidium bromide-contaminated waste must be deactivated or collected as chemical waste by EHS.

Waste is considered **Contaminated with Chemotherapeutics** if disposable items contain residual amounts of substances used to imitate a biochemical response in tissue culture or in animals, including: antineoplastic agents (e.g., cisplatin, doxorubicin, cyclophosphamide); hormones or hormone-like drugs (e.g., estrogens, tamoxifen); synthetic analogs and other carcinogens (e.g., BrdU).

Items	Contaminated with Biohazard <sup>A</sup>	Contaminated with Recombinant or Synthetic Nucleic Acid (r/sNA) <sup>B</sup>	Contaminated with Other Biological <sup>C</sup>	Contaminated with Chemical <sup>D</sup>	Contaminated with Chemotherapeutic <sup>E</sup>
<b>Regulated Sharps:</b> Syringes with needles (For your safety <b>do not</b> remove needles from syringes unnecessarily) Scalpel blades, Needles, Glass blood vials, Glass, Pasteur pipettes	Red Sharps Disposal Container into Regulated Medical Waste ( <b>RMW</b> ) Bin				Yellow Sharps Disposal Container into RMW Bin
<b>Other Sharps:</b> <sup>1</sup> Serological pipettes, Micropipette tips Swabs, sticks Glass slides, cover slips, Glass vials with agar slant, Broken or intact glassware, Broken plasticware, Razor blades, Syringes without needles	Red Sharps Disposal Container into RMW Bin	Red Sharps Disposal Container into RMW Bin - - - - - OR - - - - - Puncture Resistant Container <b>Autoclave</b> into Regular Trash	Puncture Resistant Container into Regular Trash		Yellow Sharps Disposal Container into RMW Bin
<b>Disposable Non-Sharps:</b> Intact plasticware, Plastic petri dishes with agar, Gloves, disposable gowns, Bench paper and towels, Animal bedding	Red Biohazard Bag into RMW Bin	Red Biohazard Bag into RMW Bin - - - - - OR - - - - - Clear Bag <b>Autoclave</b> into Regular Trash	Clear Bag into Regular Trash		Yellow Biohazard Bag into RMW Bin
<b>Plant Materials:</b> Plants Seeds, Used potting media, Plant cultures	Red Biohazard Bag into RMW Bin	Red Biohazard Bag into RMW Bin - - - - - OR - - - - - <b>Autoclave</b> Into Regular Trash or Compost	Regular Trash or Compost - If <i>regulated plant material</i> , <b>autoclave</b> or otherwise <b>inactivate</b> before disposal.	Consult hazardous waste manual or Contact EHS	Yellow Biohazard Bag into RMW Bin
<b>Carcasses and Tissues:</b> Animal and human tissues (Paraffin blocks with fixed tissue can go directly to trash) For human cadaver wastes contact EHS	Red Biohazard Bag into RMW or Designated Carcass Bin	Clear Bag into RMW or Designated Carcass Bin		Consult hazardous waste manual Or Contact EHS	Yellow Biohazard Bag into RMW Bin
<b>Liquid Waste:</b> Liquid media and cultures aspirated or decanted from flasks and dishes Body fluids  Solutions of biological toxins must be inactivated <sup>3</sup>	Treat with disinfectant (e.g., 1:10 dilution of household bleach) or Autoclave, then dispose down the drain with a large volume of water			Consult hazardous waste manual or Contact EHS	

Items	Contaminated with Biohazard <sup>A</sup>	Contaminated with Recombinant or Synthetic Nucleic Acid (r/sNA) <sup>B</sup>	Contaminated with Other Biological <sup>C</sup>	Contaminated with Chemical <sup>D</sup>	Contaminated with Chemotherapeutic <sup>E</sup>
<b>Mixed Wastes:</b> Hazardous chemicals mixed with biohazard waste Radioisotopes mixed with infectious materials	Consult appropriate waste manual or Contact EHS before generating such waste				

## Footnotes

1. Non-glass biohazard items that can puncture bags (e.g., plastic pipettes, micropipette tips, swabs and sticks) may be placed in a puncture resistant container (e.g., cardboard box lined with biohazard plastic bag, biohazard labeled recycled plastic container) or manufactured “burn-up bin”. Serological pipettes can puncture bags when randomly mixed with other disposable items in plastic biohazard bags. Bundle the serological pipettes into a plastic sleeve conveniently placed inside the biohazard bag, which organizes them and prevents them from puncturing the outer red biohazard bag.
2. Separate carcasses and tissues from other disposable items (e.g., plastic and paper) whenever possible. Decant liquid away from carcasses, and dispose of the liquid appropriately (e.g., formalin and ethanol as chemical waste through EHS, buffer solutions as biohazard liquid waste). Coordinate with animal facility manager, especially with large animal carcasses.
3. Toxin Inactivation - below are commonly used inactivation procedures, though they may not be suitable for your particular toxin. Consult the product information sheet for your biological toxin for specific instructions on inactivation:
  - Autoclave, if heat labile (steam at  $\geq 121^{\circ}\text{C}$  for 1 hour, up to 1 liter volume), or
  - Treat with NaOCl (sodium hypochlorite) at 1 – 2.5% (w/v) for 30 minutes (commercially available bleach solutions typically contain 3 – 6% (w/v) NaOCl, or Treat with NaOH (sodium hydroxide) at 1N for 30 minutes, or
  - Treat with a combination of 0.25% NaOCl and 0.25N NaOH for 30 minutes or treat with another recognized inactivating solution.
  - Dispose of the inactivated toxin solution down the drain with a large volume of water. You must neutralize solutions with a pH outside the range 5.5 to 9.5 before disposal. Lastly, you can dispose of active biological toxins as chemical waste through EHS. Any further questions, contact

EHS Questions about Waste Disposal? Call EHS! 607-255-8200, or send your question to [askEHS](#)

To schedule a pickup of biohazardous, chemotherapeutic, or hazardous wastes, go to: [Waste Pickups](#).