

IBC  
APPENDIX H  
MANAGING REGULATED MEDICAL WASTE  
(RMW/BIOHAZARDOUS WASTE)  
SOP

Regulated Medical Waste (RMW/Biohazardous waste/biowaste) is managed under the State of Rhode Island's Regulated Medical Waste Regulations (250-RICR-140-15-1).

<https://rules.sos.ri.gov/regulations/part/250-140-15-1>

RMW is defined as any waste generated in the diagnosis (including testing and laboratory analysis), treatment (e.g., provision of medical services), or immunization of human beings or animals, in research pertaining to humans or animals, or in the production or testing of biologicals, or in the development of pharmaceuticals. Plasticware used in research is also included in these regulations if it has been used with cell cultures. Regulated medical wastes that are mixed with non-hazardous solid wastes shall be considered regulated medical wastes. Regulated medical waste also includes certain waste, as listed in this section that is generated in any process where it is likely to have been in contact with human blood or body fluids.

For the purposes of these regulations, the following categories of medical wastes are Regulated Medical Waste in the state of Rhode Island:

Cultures and Stocks:

- Cultures and stocks of infectious agents and associated biologicals including: cultures from medical and pathology laboratories; cultures and stocks of infectious agents from research laboratories; wastes from the production of biologicals; discarded live and attenuated viruses; culture dishes, plasticware and devices used to transfer, grow, inoculate and mix cultures.

Pathological Wastes:

- Human pathological wastes, including tissues, organs, and bodyparts that are removed during surgery or other medical procedures.

Human Blood, Body Fluids and Blood Products:

- Liquid waste human blood or body fluids.
- Products of blood.
- Items saturated and/or dripping with human blood or body fluids.

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- Items that were saturated and/or dripping with human blood or body fluids; including, but not limited to, serum, plasma, and other blood components, and their containers (e.g., blood bags and blood vials) and body fluids as described in Section I, C of the regulation.
- Specimens of body fluids and their containers.
- Human cell cultures.

Sharps:

- Sharps that have been used in animal or human care or treatment, sharps generated in medical or research laboratories, including, but not limited to hypodermic needles, syringes with or without the attached needle, Pasteur pipettes, scalpel blades, blood vials, needles with attached tubing and glass carpules. Also included are other types of broken or unbroken glassware that have been used in animal or human care or treatment, including used microscope slides and cover slips. Disposable syringes and needles are considered Sharps RMW after one use.
- Sharps must be segregated and disposed of in leak-proof, rigid, puncture-resistant, shatterproof containers (Sharps containers are available from lab supply vendors). Dispose all Sharps containers in Biohazard waste boxes. Call EHS to arrange pickup when a Sharps container is full if a Biohazard Waste Box is not available in your lab or on your floor.

Animal Waste:

- Contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research, including research in veterinary hospitals, production of biologicals, or testing of pharmaceuticals. Research animal carcasses are disposed as Pathological Waste and trans-shipped to a second vendor for incineration.

Unused sharps: Unused, discarded sharps, as described above.

Spill/Cleanup Material: Any material collected during or resulting from the cleanup of a spill of regulated medical waste.

Mixtures and Waste in Medical Waste Containers:

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- Any waste which is a mixture of regulated medical waste and some other type of waste which is neither radioactive nor a hazardous waste of a type other than regulated medical waste. Also, any waste, when placed in a sharps container, bag with a biohazard symbol, or other container labeled and/or designed for the packaging of regulated medical waste, must be handled and treated as a regulated medical waste, even if the contents did not previously meet the definitions in this section. If the waste is a radioactive and/or a hazardous waste it must also be handled in accordance with Regulations appropriate for radioactive and/or hazardous wastes.

Crime Scene/Accident Cleanup Waste:

- Any waste generated by commercial entities hired to clean crime scenes or accidents that are saturated with human blood or are sharps or sharp objects contaminated with human blood.

**Federal Department of Transportation (DOT) Shipping Regulations as they apply to RMW (Biohazardous Waste)**

- RMW is regulated by the RI Dept. of Environmental Management (RIDEM). RIDEM also licenses medical waste transporters to legally transport medical waste from the waste generator's facility to the final disposal site. Because transportation is involved, US Department of Transportation (DOT) shipping regulations apply when shipping RMW for disposal.
- Anyone who offers medical waste for transport (the offeror, i.e. PI), must ensure that the box is prepared in compliance with DOT regulations, which include having proper markings and labels on each box.
- The University's RMW vendor provides pre-printed shipping containers so labels and markings are printed in the appropriate locations on the boxes. Lab staff must ensure compliance with DOT regulations by setting the box up properly; when presented for transport the box must be right side up and the writing must be legible to anyone looking at the box. If the box is upside-down box, the offeror (PI) is out of compliance with the hazard communication component of the regulation.
- The driver will reject all boxes that are improperly prepared, including those that are presented upside down, are leaking or wet. Drivers are

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subject to periodic inspections on the highway. An out of compliance box would mean a large fine for a driver who has accepted the box.

**NEW: WHITE BOXES FOR PATH WASTE**

**If you generate animal waste from teaching labs or the CBRC facility, you will now use the white boxes provided by the vendor to ensure this waste stream is sent for incineration. If white boxes are not available, conventional brown boxes can be used but the top must clearly be labeled "PATH WASTE".**

**Preparing RMW for Shipment**

Biohazard waste boxes (white and brown), red liner bags and 31 gal totes for recycling lab plastic are available in room 275-A College of Pharmacy; in room 075 Fascitelli Engineering (brown boxes, no white), from Nasir Hamidzada in CBLS and at Peckham Farm. They are also available from EHS on request if you are in another building.

**NEW**

**To obtain supplies, or if you are in another building, submit an online Request for Biohazardous Waste Pickup form and indicate what you need in the Supplies section at the bottom. <https://web.uri.edu/ehs/biohazardous-waste-pickup-request-form/>**

**EHS provides the following:**

- Biohazardous waste boxes (brown and white)
- Red bags
- Tape
- 31 gal red totes for recycling lab plastic

**SETTING UP THE BOX**

**Take a minute to set the box up properly:**

- **Begin with the box upside down** so the writing will be the right way up when finished.

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- Fold the box into shape.

**NOTE: The boxes from our RMW vendor are die cut with flaps that interlock securely. Extra care is needed when setting up and sealing boxes to make sure your medical waste is properly contained.**

- Fold the bottom cardboard flaps together in sequence (1, 2, 3). Make sure each section is tucked in, so the junctions hold together, and the box doesn't blow apart when it is filled!
- Tape the bottom of the box **SECURELY** using at least 4 strips of tape attached firmly to the cardboard.
- **Flip the box over so it is right side up, and the writing is legible from any direction.**
- Tape the flaps to the sides of the box. Line the box with 2 red bags (they are very thin), carefully fitting them over the edge of the box as shown below. The box is now ready for use.



- **NOTE: Red bags must be kept closed except when adding waste.** A twist tie or piece of cardboard that completely covers the opening can be used.

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**FILLING THE BOX**

Although the boxes are pre-printed to hold 55 pounds per OSHA regulations, **WE LIMIT THE FILL TO 35 POUNDS TO REDUCE INJURIES TO STAFF. BOXES THAT ARE OVERWEIGHT WILL BE REJECTED AND YOU WILL HAVE TO RE-PACK THEM.**

- Red bags are containment for your waste. Disposable pipet tips as well as contaminated lab plastic ware, disposable lab coats, gloves and other disposable PPE can be collected in the box.
- *Items prohibited from disposal in the biowaste box include all pourable liquids, free sharps (not in a proper Sharps container) as well as any other materials that can puncture red bags and boxes, including serological pipettes.*

**SEALING THE BOX**

When the box is full and ready to be sealed, follow these important steps:

- Squeeze the air out of the bag, twist the top several times and tie into a knot. The box is now ready to be sealed with tape.
- Match up the flaps and make sure they are completely seated. There should be no gaps.
- Carefully apply at least 4 strips of tape to seal the top and keep the biowaste properly contained in transit.
- Write the PI's name on the top of the box with a Sharpie.

**PICK-UP SCHEDULE**

Pickups are scheduled on alternate Tuesdays. The schedule can be found at:

<https://web.uri.edu/ehs/files/2022-BIOWASTE-SCHEDULE.pdf>

- Pharmacy is the only scheduled stop. If you are in Pharmacy, you do not need to schedule a pickup. EHS will remove your boxes from 275-A.

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**NEW:** For all other buildings, use the **new online Biohazardous Waste Pickup Request form** at: <https://web.uri.edu/ehs/biohazardous-waste-pickup-request-form/>

Submit the online form by noon on Friday before the pickup. EHS may contact you to arrange a pickup earlier than Tuesday, especially if bad weather is forecast.

**REMINDER:** This is a regulated waste and must be always under control of the generator. Do not leave boxes unattended on the loading dock or in the hallway the day or night before the pick-up.

- Leave all boxes inside, out of the rain and wet. Be careful leaving boxes at loading docks. High winds can force rain under the overhead door. If the box gets wet, you will have to repack it.

**BOXES WILL BE REJECTED**

**RMW boxes will be rejected if:**

- The boxes are packed upside down.
- The seams on the box are not properly taped or are taped with anything other than clear packing tape (i.e., duct tape, masking tape, blue painter's tape).
- The box is wet for any reason. The cardboard box is for dry waste only. Infectious liquids can be decontaminated with 10% bleach or autoclaved. If the pH of the waste bleach is outside the pH 5 to pH 9 window, it must be collected as hazardous waste and disposed through EHS. Alternatively, liquids can be autoclaved and disposed to the sink. Do not add bleach if autoclaving liquids.
- The boxes are wet because they have previously been stored in a freezer or chiller, or the contents have been in a freezer and condensation has formed, compromising the rigidity of the cardboard box.
- The box is overweight. Although the boxes are printed for 55 pounds, do not exceed 35 pounds per box.

**SPECIAL NOTES**

**College of Pharmacy**

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Because Medical Waste is a regulated waste, it must be stored in a locked or secure area until it is picked up by the RMW driver. Room 275-A is the storage location in Pharmacy. Waste disposal supplies, including boxes, red bags, 31 gal totes and tape are all stocked in 275-A.

- When you have filled a box or tote, seal/close it properly in the lab and use a hand truck or lab cart to move it down to 275-A. Do not allow full boxes to accumulate in the lab.
- Place the box on the spill pallet in 275-A. Do not leave boxes on the floor. Heavy rain can cause flooding in 275-A. 31 gal totes should be stacked on the floor.
- **Use a Sharpie to write the PI's name on your box. Don't forget to do this!!** EHS needs to know who shipped in case there is an accident on the highway. Emergency responders will assume the worst when they see the biohazard symbol on a box from an overturned truck; the burden of proving otherwise falls to the University.

#### College of Engineering

- EHS keeps a supply of boxes, red bags, 31 gal totes and tape in 075 Fascitelli. Supplies are reloaded as necessary.
- If supplies are missing, they can be picked up from Pharmacy. It could be that the vendor did not supply boxes as requested. The situation will be corrected before the next pickup date.
- Researchers in Fascitelli are requested to keep full boxes in their labs until the day of the pickup. Take them to the loading dock by 9:30 am if EHS has not picked them up earlier.