

Regulated Medical Waste (RMW) Pointers for Research Teams in VU Research Buildings

This guidance applies to research teams who generate biohazardous waste and whose labs are in the following VU research buildings: MRBIII, Learned Lab, Stevenson Center, Keck-FEL, Featheringill/Jacobs, Olin Hall, and ESB.



RMW shipper qualifications: Are you properly certified?

First, you must have completed the following courses in Oracle Learn (or Learning Exchange if you are a VUMC person):

1. [Biosafety 101: Standard Microbiological Practices](#)
Basic training for anyone expected to handle biomaterials as a function of their work at Vanderbilt.
2. [Regulated Medical Waste \(RMW\) Shipping Training for Lab Researchers](#)
Required training for anyone who prepares regulated medical waste shipping containers and/or signs for waste pickups in VU research buildings; must be renewed every three years.

After completing these courses, VU EHS Biosafety will email you a Department of Transportation (DOT) - compliant certificate (like shown below on the left). That certificate has a place for your supervisor to sign once they've verified your understanding of the practices on the Biowaste LLC container checklist (see page 4).

NOTE: The automatically generated certificate from Oracle Learn (or Learning Exchange) or a screenshot of your Oracle Learn transcript does not satisfy DOT training record requirements!

Certificate of Training

Name _____

Has successfully completed Regulated Medical Waste awareness training for regulated medical waste shipped by a contract carrier [49 CFR 173.134(c)]. Understanding of the training was demonstrated through successful completion of a written examination, including general awareness, safety and security, and function-specific elements in accordance with 49 CFR 172.

Date of Training:	Day month year
Expiration Date:	Three years minus a day
Mailing Address of Training Site:	Vanderbilt University Environmental Health and Safety RtO 21 st Avenue South, 11 th Floor, Nashville, Tennessee 37203
Trainer/Title:	Online Training (Vanderbilt University Oracle Learn)

I endorse the certification for the employee listed above to prepare and ship regulated medical waste by a contract carrier on behalf of my employer, Vanderbilt University.

Supervisor's Name/Department _____ Supervisor's Signature/Date _____

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CORRECT! You will receive a certificate like this via email from your Biosafety Team. Once signed by your supervisor, THIS certificate is the one that you should be ready to provide to a regulatory inspector.

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Certificate of Completion

NAME _____

Completed Regulated Medical Waste Shipping Training for Lab Researchers

On April 07, 2022

Issued by Vanderbilt University
2201 West End Ave, Nashville, TN 37235



STOP!
An auto-generated certificate from Oracle Learn or Learning Exchange does not satisfy DOT certificate requirements!

REMINDER: Know when your certificate expires and take action to repeat the RMW shipper's training at least one month ahead of that date!

Supervisors: Action to take before signing an RMW training certificate

Successful completion of the online RMW training course alone does not assure that someone fully understands and can execute properly the safety practices required for preparing regulated medical waste shipments. DOT hazardous materials regulations require that the employer verifies the employee's understanding and signs the certificate accordingly. **Before signing someone's certificate, have the person demonstrate understanding of 4-6 items from the Biowaste LLC container checklist (see page 4) to ensure that they can successfully carry out RMW packaging and shipping tasks.** If you are not satisfied that a person has understood the training, please feel free to contact VU Biosafety for assistance in getting the person successfully qualified.

How to set up your lab for reliable and successful RMW pickups

Follow these key practices to make sure that your shipping containers are picked up on schedule.

1. Pack your containers properly.

- container is free of defects/cracks,
- liner is properly closed (with single knot or two zip-ties),
- yellow tag is tied to handle and marked with room and building ONLY, and
- shipping lid is installed completely with no liner outside of lid.

2. Stage containers in correct location for pickup.

- Place packed containers near pickup location posting if this is posted inside your lab.
- Do not stack containers more than 2 high.
- Do not obstruct lab entrances with containers!

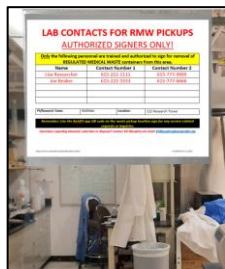
3. Plan to have a currently qualified signer present during scheduled pickup window.



PROBLEM CONTAINER

- This is a lab lid and not rated for shipping.
- The liner is overfilled and hanging outside the container.

This does NOT meet DOT requirements!



Reminder: Post an authorized signers list in a visible location near the lab entrance!

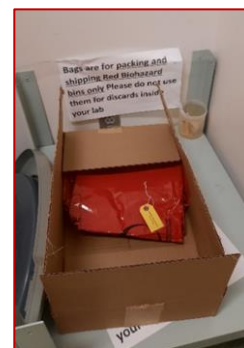
Doing so will ensure that the vendor can call someone to sign for the pickup if no one is present when they arrive. Those who are listed must:

- be a currently certified RMW shipper,
- should strive to be available during the pickup window, and
- should answer their phone during that window so that pickups are not missed.

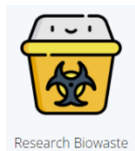
Planning for unexpected/non-routine situations

Shipping supplies: When the vendor picks up your containers, they should leave empty containers, liners, lids, and tags. If that doesn't happen for some reason, or your waste generation increases and you need more supplies, these can be acquired at the following locations:

Building	Action
MRB III, Learned Lab, SC 2	Extra supplies are stocked in the autoclave rooms on floors 3-9 of MRB III.
SC 5/6/7, Keck-FEL, Featheringill/Jacobs	Extra supplies are stocked in the back of the Chemistry Storeroom in Stevenson Center 7.
ESB, Olin Hall	Extra supplies are stocked in the VU EHS closet behind 101 ESB; contact the ESB Building Manager or VU EHS Biosafety for access.



Please note: Liners are intended for lining RMW shippers ONLY!



If your properly staged RMW containers do not get picked up...

Report missed pickups through the "Research Biowaste" Tile on the [ReADY App](#) or by emailing [VU EHS Biosafety](#). Missed pickups will generally be rescheduled for the next pickup day in your building.

More planning for unexpected/non-routine situations

Holiday impact on pickup schedules: A communication will be sent out to labs with RMW pickups at least two weeks ahead of holidays that impact regularly scheduled pickups. Alternately, you may contact [Matthew Buckley](#), Director of Campus Services, to determine upcoming holiday impact on your lab's pickup schedule.

Spill prevention and spill planning: All labs that generate RMW should have spill supplies and a spill response plan as outlined in the VU IBC policy Responding to Biomaterials Exposures and spills.

Three simple ways to prevent biowaste-related spills include:

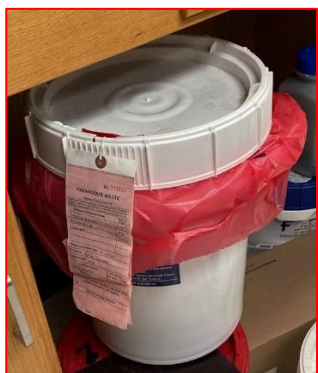
1. Always use leakproof secondary containers for collecting, storing, or transporting bagged biohazardous waste.
2. Collect pipettes separately and "bundle" or package in a way to prevent bag puncture.
3. If primary containers contain significant liquid quantities (greater than 5 mls), aspirate or decant liquids before disposing of the containers.

Think ahead to prevent spills!



Always store and transport biohazardous waste bags in a leakproof container!

What items CANNOT be disposed of via Biowaste LLC RMW containers?



NOTE: Ethidium bromide gels should not be collected in a biohazard bag! (Use the liner provided with the bucket by the Chemical Safety and Hazardous Waste Team.)

Items that cannot be placed in Biowaste LLC RMW containers for pickup, treatment, and disposal include:

- Mixed hazard wastes such as ethidium bromide gels, items contaminated with radioactive materials or uranyl acetate, items contaminated with hazardous chemicals such as formalin or glutaraldehyde. (Contact the Chemical Safety and Hazardous Waste Team at chemicalsafety@vanderbilt.edu for guidance.)
- Stock cultures of infectious agents or any biological materials used under USDA or CDC permits. (Contact VU EHS Biosafety for assistance with treating and disposing of these items.)
- Biohazardous sharps containers that exceed 18 gallons in capacity OR do not fit upright in the Biowaste LLC shipping container, regardless of capacity. (Email VUBiosafety@vanderbilt.edu for collection of these items.)
- Anatomical tissues from animals (aside from insects or *C. elegans*) or humans. (See information in next session.)

How do I collect and dispose of human or animal tissues/carcasses?

When used in a research or teaching environment, and regardless of whether fresh or chemically-preserved, these items cannot be discarded in the lab trash. They must be segregated from other wastes and collected in a biohazardous waste bag. The securely closed bag (i.e., tied with a single-handed knot or two zip-ties) should be placed in a secondary container that will capture any leakage. This should then be placed in cold storage until pickup for final treatment or disposal. Tissue/carcass wastes can be disposed of through the following methods:

- **Tissues/carcasses associated with an IACUC protocol** – return wastes to vivarium of origin for placement with their tissue/carcass wastes.
- **Tissues originating from VUMC clinical operations** – prearrange with VUMC collaborator who provided the tissues to return these for disposal after use.
- **Tissues acquired from a supermarket, butcher, or lab supply company used in teaching or research activities** – email VUBiosafety@vanderbilt.edu to request a pickup.

BIOWASTE, LLC CONTAINER SAFETY CHECKLIST

Use this checklist to verify that your containers are properly staged for pickup and to assure that Department of Transportation hazardous materials shipping requirements are met.

For containers going into service or in process of being filled:

1. All biohazardous waste items are properly stored in the lined Biowaste, LLC waste containers (not on the floor, on top of the containers, etc.).
2. All containers in use are free of defects (e.g., no cracks on bottom, no substantial cracks on tops or top corners, lid is intact) and required transportation safety hazard identification markings are visible and legible.
3. No free liquids are present in the Biowaste, LLC containers (either inside or outside of the liner).
4. All containers are lined with a biohazard bag provided by the shipping vendor before items are placed in the container.
5. No loose sharps are present in the lined container.
6. All sharps containers are permanently closed and then placed upright in the Biowaste, LLC containers.
7. No chemical or radiological hazard containers are present.

For containers that are full and being staged for pickup:

1. All containers are not overflowing and do not appear to exceed 50 pounds (container weight should not exceed 50 pounds).
2. All containers ready for pickup are free of defects (no cracks on bottom, no substantial cracks on tops or top corners, lid is intact) and required transportation safety hazard identification markings are visible and legible.
3. All container liners (biohazard bags) are securely closed using a single knot or two zip-ties (do not tape or tie two edges of the of the bag together for closure).
4. All containers designated for pickup are securely closed with no part of the liner (biohazard bag) outside of the lid.
5. All containers designated for pickup have a yellow tag on the handle with the pickup location (room and building only) written on the tag.
6. All containers ready for pickup are staged near the RMW pickup location sign.

PICKUP REMINDERS:

- All labs using this service have a scheduled pickup day and timeframe. Biowaste, LLC will not pick up containers unless a currently trained and certified signer is present.
- ONLY lab members who have completed Regulated Medical Waste Shipper's training and have a current certificate may sign for Biowaste, LLC pickups.
- Use the QR code on RMW pickup postings for special requests or to report issues.

VU EHS Biosafety Section 10.2022