

## EHS Guide: Laboratory Trash Removal

In order to minimize risk, provide safety and assure compliance with applicable federal and state regulations, any waste (trash) generated by laboratories must be properly segregated, collected and disposed in the correct manner.

In laboratories, Facilities Services Housekeeping staff is only allowed to remove non-hazardous, solid waste/trash in the regular trash wastebasket.

Hazardous waste (as defined by EPA-RCRA) and/or items contaminated with hazardous chemicals must be disposed through EHS. Items containing or contaminated with radiation must be disposed through EHS Radiation Safety. Biological waste or items contaminated with infectious biological materials must be treated by the lab (autoclaved or chemical sterilized) to render them no longer infectious and then can be taken to the building dumpster by lab personnel.

There is to be no EPA-RCRA hazardous waste nor potentially hazardous items, materials or debris (hazardous chemicals, radiation or bio-hazard waste) generated from laboratory activities placed in the lab's regular trash wastebasket.

Items going into the trash basket must be **FREE** of any hazardous components or residue.

Anything which is not clearly within the above is the responsibility of lab personnel to verify with EHS the proper disposal method. For those items that do not require disposal through EHS or are outside of the responsibility of FS-Housekeeping, then lab personnel are responsible for getting it to the building dumpster.

Examples of laboratory materials that **are not allowed** into the regular trash wastebasket.

- Containers (plastic, glass, metal) – pipettes, bottles, flasks, beakers, cans, tubes, or any other miscellaneous containers. According to existing EHS policy/procedures, these items must be free of any hazardous components, contents or residue and must go into lab's glass disposal box or other appropriate lab collection containers for disposal into the building trash dumpster.
  - *Housekeeping staff have been previously instructed by EHS to not remove these glass disposal boxes/collection containers from labs, but may be willing to provide assistance to the lab if the glass disposal boxes or collection containers have been properly sealed, appropriately labeled, in good shape and safe to be moved.*

- Sharps – Broken glass, plastic, metal, needles, capillary tubes, scalpels, blades, etc. Anything that can cut or puncture personnel risking injury or exposure; or can puncture through a garbage bag risking the bag to rupture and spill. According to existing EHS policy/procedures:
  - Sharps contaminated with radiation must be disposed through EHS Radiation Safety.
  - Sharps that are chemical contaminated must be evaluated by lab and EHS to determine appropriate disposal. Sharps determined to be regulated by RCRA as hazardous waste must go through EHS for disposal.
  - Infectious sharps (biological hazard) must be handled in accordance with HMWMM Section 3 which requires biological waste or items contaminated with infectious biological materials must be treated by the lab (autoclave or chemical sterilized) to render them no longer infectious and then be taken to the building dumpster by lab personnel.
  - Non-Contaminated Sharps are a type of solid waste that is not specifically regulated for disposal, but require additional packaging and safety precautions prior to disposal in building dumpster.
    - *Housekeeping staff have been previously instructed by EHS to not remove any sharps containers from labs, but may be willing to provide assistance to the lab in the disposal of Non-Contaminated Sharps Containers if the collection container has been properly sealed, appropriately labeled, in good shape and safe to be moved.*
- Pipette Tips – These are considered sharps due to ability to puncture. According to existing EHS policy/procedures:
  - Pipette tips contaminated with radiation must go to EHS Radiation Safety.
  - Pipette tips that are biological contaminated or infectious must be treated by lab (autoclave or chemical sterilized) and then can go to building dumpster.
  - Pipette tips that are chemical contaminated must be evaluated by lab and EHS to determine appropriate disposal. Pipette tips determined to be regulated by RCRA as hazardous waste must go through EHS for disposal.

- If non-RCRA and they pose no chemical exposure concern, then they are considered non-contaminated and handled as solid waste. Non-contaminated pipette tips must go into lab glass disposal boxes or other appropriate lab collection containers for disposal into the building trash dumpster by lab personnel.
- *Housekeeping staff have been previously instructed by EHS to not remove any pipette tips containers from labs, but may be willing to provide assistance to the lab in the disposal of Non-Contaminated Pipette Tips Containers if the collection container has been properly sealed, appropriately labeled, in good shape and safe to be moved.*
- “KimWipes”, paper towels, rags and/or absorbent pads used to protect benches, wipe up spills, or clean/dry items. According to existing EHS policy/procedures:
  - If they are contaminated with radiation must go to EHS Radiation Safety.
  - If they are EPA-RCRA Hazardous waste and/or items contaminated with hazardous chemicals, they must be disposed through EHS.
  - If they are contaminated with biological or infectious materials, must be treated by the lab (autoclave or chemical sterilized) to render them no longer infectious and then be taken to the building dumpster by lab personnel.
  - If these items are non-contaminated, they may go into the regular trash container and disposed as normal solid waste.
- Gloves (or other used protective equipment) for disposal. According to existing EHS policy/procedures:
  - If they are contaminated with radiation must go to EHS Radiation Safety.
  - If they are EPA-RCRA Hazardous waste and/or items contaminated with hazardous chemicals, they must be disposed through EHS.
  - If they are contaminated with biological or infectious materials, must be treated by the lab (autoclave or chemical sterilized) to render them no longer infectious and then be taken to the building dumpster by lab personnel.
  - If these items are non-contaminated, they may go into the regular trash container and disposed as normal solid waste.

- Hazardous Materials – (EPA-RCRA Hazardous Waste, hazardous chemicals, biohazards, radiation, laser wastes). According to existing EHS policy/procedures:
  - If they are radioactive materials or contaminated with radiation must go to EHS Radiation Safety.
  - If they are EPA-RCRA hazardous waste and/or items contaminated with hazardous chemicals must be disposed through EHS.
  - If they are contaminated with biological or infectious materials, must be treated by the lab (autoclave or chemical sterilized) to render them no longer infectious and then be taken to the building dumpster by lab personnel.
  - FS Housekeeping personnel are not responsible for the pick-up, removal or disposal of any hazardous materials.
- Chemicals or Biological Materials (liquids/solids). Not all chemical or biological materials are hazardous and some may be disposed as normal solid waste (i.e., “trash” which may go to building dumpster and then can go to municipal waste landfill.) **HOWEVER**, for safety/risk/compliance reasons, it is not FS Housekeeping staff’s responsibility to remove and dispose of any containers of chemicals (hazardous or non-hazardous) or biological materials.
  - Lab personnel must confer with EHS so that the appropriate evaluation and determination can be made regarding proper disposal.
  - In some instances, when it has been determined by EHS that items are non-hazardous and may be disposed as solid waste, lab personnel may be instructed by EHS to transfer them to building dumpster. In other instances, lab personnel may be instructed that EHS will pick them up.
- Animal Related Materials/Waste – some of it falls under EHS biological waste requirements and some of it falls under IACUC/ACU purview. Requirements are clearly articulated in EHS Guidance document “Human and Animal Tissue Disposal” and per IACUC/ACU procedures. Either way, these are not to end up in a lab regular trash basket. It is lab responsibility to assure that these are properly collected and disposed through ACU or EHS as procedures indicate.
- If, at any time, any waste materials are believed by lab personnel to pose some danger to human health, safety, or the environment, **do not** put them in any regular trash basket, container or building dumpster. Contact EHS so they may be evaluated by EHS to determine appropriate disposal methods.

Examples of laboratory materials that can go into the lab regular trash wastebasket:

- Normal Trash/Solid Waste - Must be **FREE** of any hazardous components or residue (This could include paper, cardboard, plastics, metals, dirt, sand, human food, etc. but it must be free of any hazardous components or residue.) Reminder that food and beverages are not allowed within lab spaces so evidence of such should never be in a lab trash waste basket. EHS & FS encourages the recycling of non-contaminated paper, cardboard, plastics and metals.
- Common paper and other documents – {should be recycled!}.
- “KimWipes”, paper towels, rags, absorbent pads, or gloves that are **free** of any hazardous components or residues may go into a regular trash container and disposed as normal solid waste.
- Miscellaneous Items that do not fit into the above, that are **free** of any hazardous components or residues may go into a lab’s regular trash container and disposed as normal solid waste. If it does not or will not fit into the wastebasket, then lab personnel need to take it to the building dumpster. If you need assistance with these items, contact FS Housekeeping Services.

### **Problems/Concerns Reporting**

Housekeeping staff are instructed by EHS that if they discover, observe or find lab regular trash wastebaskets with problems or concerns not in accordance with the EHS policies, procedure manuals, guidance documents or the above, they are not to empty that lab’s wastebasket.

The problem/concern/situation is to be reported to their Housekeeping Supervisor. Housekeeping supervisor will promptly report the matter to EHS.

EHS Dept.: (785-864-4089)  
EHS HMEP Services: 785-864-2853  
EHS On-Call pager: (785-838-7421)  
Email: hazmat@ku.edu

EHS will investigate the concern; interface with lab personnel, identify any applicable corrective actions, and direct completion. Incident will be documented and reported to responsible Lab Supervisor/PI, and copied to Unit Chair/Director, Housekeeping Supervisor and applicable EHS personnel.

Labs that have questions or concerns about lab waste disposal are to contact EHS. EHS will provide appropriate direction or resolution to the matter.

## **How to Safely Empty a Lab Waste Basket**

- 1) Never reach into a wastebasket to remove trash by hand!
- 2) Wear appropriate personal protective equipment when emptying trash. Eye protection (safety glasses or goggles) and hand protection (appropriate gloves) are required.
- 3) Carefully collapse and tie the top of the liner shut. Gently lift/remove the liner bag from the wastebasket.
- 4) If the liner bag appears to be too full or heavy, do not lift it from the wastebasket. Pick up the wastebasket from its sides or handles, correctly lift and empty the closed liner bag into a larger mobile collection vessel or building dumpster.
- 5) When a mobile collection container becomes full, use the same careful safety procedures to close its liner and/or empty it into a building dumpster. If container is heavy or unwieldy, utilize two or more people to empty it safely.

Liner bags serve as a primary safety barrier/containment device. Wastebaskets and collection containers serve as a secondary safety barrier/containment device. When used in conjunction with proper safety PPE and procedures, potential risks from emptying trash containers are minimized.

Safety concerns or problems must be reported to supervisor and EHS.

Applicable EHS Policies, Procedure Manuals, & Guidance Documents:

1) EHS Policies:

- Campus Health & Safety Policy
- Campus Environmental Policy
- Hazardous Materials Waste Management Program Policy

2) EHS Hazardous Materials Waste Management Procedure Manual:

- Section 1.0) Hazardous Materials Waste Management - General Information
- Section 2.0) Safe Disposal of Hazardous Chemical Waste
- Section 3.0) Safe Disposal of Hazardous Biological Waste
- Section 4.0) Safe Disposal of Radioactive Materials/Waste
- Section 5.0) Safe Disposal of Lasers and Associated Waste

Hazardous Materials Waste Identification:

- Section 1 : 1.5 - Hazardous Materials Identification
- Section 2 : 2.6 - Hazardous Chemical Waste Identification
- Section 3 : 3.3 - Sources of Bio-Hazard/Infectious Waste
- Section 4 : 4.7 - Specific Types of Radioactive Waste
- Section 5 : 5.2 - Disposal of Laser Associated Waste

3) EHS Guidance Procedure Documents

- Human and Animal Tissue Disposal
- Sharps Disposal