

Notice to all Laboratory Staff

Please note: Important changes have been made to hazardous and non-hazardous waste disposal in laboratories.

The Department of Environmental Health & Safety and Custodial Services are implementing a change to waste services in laboratory spaces. These changes provide streamlining of wastes, redesignation of certain waste containers, and provide recycling and waste diversion opportunities.

Changes include:

- Disposal of regular waste from laboratories in designated bins only
- Recycling of certain non-contaminated laboratory plastics by diversion into new specially dedicated containers
- Disposal of laboratory glass, non-recyclable plastics, chemically contaminated gloves, and other chemically contaminated materials into a common waste container
- Recycling of non-contaminated laboratory gloves
- Waste storage bin labeling requirements

Regular Garbage Waste



Figure 1. Waste container for non-contaminated general laboratory waste. These bins will be serviced by Custodial Services.

Non-contaminated general waste in laboratories will continue to be serviced by Custodial Services with the exception of level 2+ biohazard laboratories.

Only large gray bins labeled as **Garbage Only** will be serviced. These must be placed close to the door of the laboratory. Smaller under-desk bins may be used inside the laboratory, however, waste from these must be placed in the larger bins by laboratory staff for disposal to avoid potentially contaminated materials from entering the general waste stream. Waste from non-labeled bins will not be serviced.

It is the responsibility of each laboratory to ensure they have a sufficient number of **Garbage Only** containers with the appropriate labels. If you require a labeled large gray garbage bin, or additional Garbage Only stickers for your existing large bin(s) please email Llynwen Osborne at lrao@queensu.ca

Autoclaved Materials:

Autoclaved waste, including any autoclaved plastics will continue to be serviced by custodial services. Unfortunately, we currently cannot recycle the autoclaved plastic, therefore all autoclaved waste should be placed into the gray **Garbage Only** bins once sterilized.

Paper Recycling:

Paper recycling will continue to be the responsibility of each staff member. Non-contaminated recyclable paper should be disposed in centralized recycling stations in the hallways.

Bin Labeling:

ALL hazardous waste bins in the laboratory must be clearly labeled with the appropriate type of hazard. It is the responsibility of the laboratory personnel to label the bins with stickers (see appendix A-C) since they are most knowledgeable about the contents.

In general, laboratories contain many different bins with various types of hazardous and non-hazardous waste, biological waste, autoclave waste, glass, pipettes etc. and it is difficult to distinguish between them if they are not labeled. This standardization is necessary to ensure that only regular garbage is picked up by custodial staff and disposed in the landfill, and to clearly identify hazardous contents in waste containers in case of emergencies.

Three labels are available and provided, see *Appendix A: Chemical Waste Bin Label*, *Appendix B: Biohazard Waste Bin Label*, and *Appendix C: Radiation Waste Bin Label*

Labels have been provided to departments for distribution. Please contact your safety officer, lab manager or EH&S if you require more.

Laboratory Plastic Recycling

Plastic that can be recycled:

Certain non-contaminated laboratory plastics can now be recycled. Only hard plastic packaging and containers larger than 10 cm (on the longest dimension) that are dry and clean with no residue or prior chemical use are acceptable. Please see picture below for examples.



Figure 2. Lab plastic waste items that can be recycled

Note: Vials containing liquids, even if the liquid is non-hazardous, must be diverted to the hazardous-waste stream for disposal. Please do not decant liquid from small individual vials to make them recyclable.

Plastic that cannot be recycled:

Plastic waste which has been in contact with hazardous substances (chemical, biological, and/or radioactive) is **NOT** recyclable. Such items must always be disposed of in the hazardous waste stream and should never be cleaned or rinsed so that they might be considered non-hazardous.

Autoclaved plastics melted together cannot be recycled and must be disposed as regular waste in **Garbage Only** bins.

Any soft plastic packaging or items smaller than 10cm on the longest dimension cannot be recycled. Furthermore, pipettes and pipette tips of any size cannot be recycled. See picture below for some common examples of non-recyclable plastics.

Note: Needles and other sharps must be disposed in a proper 'sharps' container.

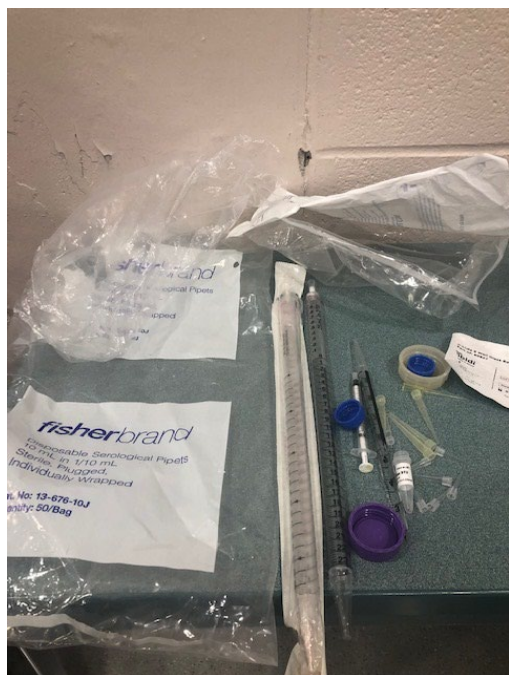


Figure 3. Lab plastic waste items that cannot be recycled

Small plastic items, excluding packaging materials and bags, that cannot be recycled should be disposed as hazardous waste in the white buckets labeled as **Caution Hazard! Laboratory Glass/Plastic/Debris** (previously marked as **Lab Glass Disposal Only**). See **Laboratory glass/plastic and other debris** section below for details.

Lab Plastic Recycling Containers

Laboratory plastic is collected in gray 80 L bins lined with a blue coloured bag. The bins are labeled with a **Lab Plastic Only** sticker. See picture.



Figure 4. Waste container for recyclable lab plastic items. These bins will be serviced by Custodial Services.

Please ensure that no other materials (paper, plastic bags, glass or any other items) are placed in the dedicated **Lab Plastic Only** recycling bins, since such contamination will result in the total contents being treated as regular waste and ending up in the landfill.

Due to the generally lower volume of recyclable plastics from laboratories, we are asking that several laboratories group together or even that all labs on the same floor of a building share **Lab Plastic Only** containers. These shared containers should be placed in a common location near other general waste bins or recycling containers serviced by custodial services.

Containers can be requested by emailing custodial-l@lists.queensu.ca. They will be automatically emptied by custodial services as needed.

Laboratory Glass, Non-recyclable Plastic and Contaminated Debris

Laboratory glass, empty (non-barcoded) waste containers, non-recyclable laboratory plastic excluding packaging and bags (see figure 5), as well as small chemically contaminated materials and gloves can now be mixed in the same white container previously labelled **Lab Glass Disposal Only**. New **Caution Hazard! Laboratory Glass/Plastic/Debris stickers** have been provided to

departments to replace the old green stickers. Please contact your safety officer, lab manager, stores or EH&S if you require more.

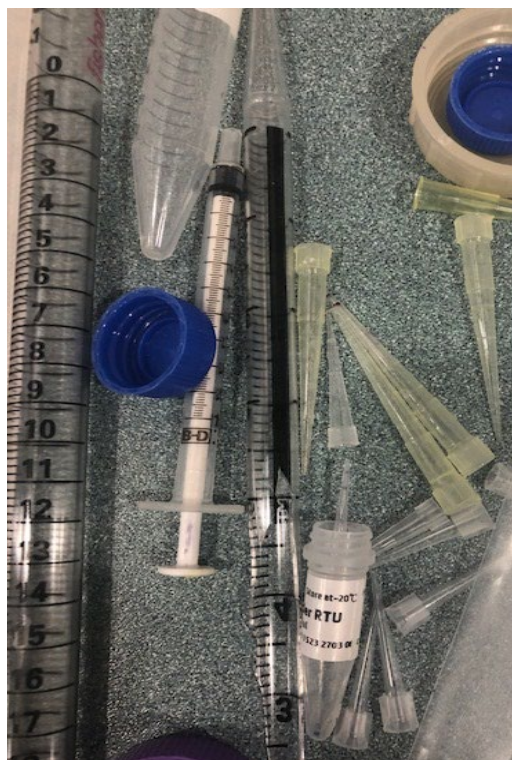


Figure 5. Plastic items to be disposed with glass/plastic/debris

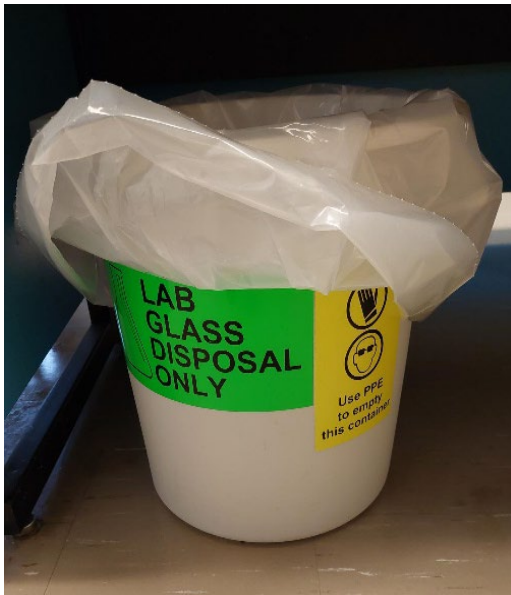
Important note: “Potentially Contaminated” means only a residue of a chemical is present on the material (glass, plastic, glove, etc.) being disposed. For example an empty vial with some minor visual residue/staining that cannot be easily removed and does not leak is generally considered as empty. Any substantial amount of chemical, or chemical contamination, must be submitted individually as a hazardous waste chemical.

Instructions:

- Do not include any highly toxic, reactive, or smelly waste residue.
- No biohazard or radiation contaminated materials
- No sharps metal needles
- Waste must be placed in labeled white buckets lined with a minimum 3 ml clear plastic bag to prevent puncture and leaks.
- Do not dispose of liquids
- Please do not overfill the bag.
- Ensure pipettes are not sticking out of the bag

- Tie bag when full and label as “Waste Laboratory Glass/Plastic/Debris” using a marker directly on the bag or label taped to the bag.

Old Label



New Label



Figure 6. Waste containers for laboratory glass, non-recyclable lab plastic items, and other contaminated debris serviced by EH&S as Hazardous waste.

Custodial Services will no longer remove **Caution Hazard! Laboratory Glass/Plastic/Debris bins.** Waste pick-up must be scheduled by submitting a *Hazardous Waste Disposal Form* on the EH&S website. <https://www.queensu.ca/risk/safety/waste-disposal>. Submit as Glass/Plastic/Debris.

Note: EMPTY CHEMICAL SUPPLY BOTTLES WITH BARCODES cannot be mixed with Laboratory Glass/Plastic/Debris waste because each individual bottle must be scanned out of the inventory by our service provider after it is picked up from the laboratory. To request disposal fill out a hazardous waste request form on the EH&S website. Submit as Empty Chemical Bottles.

If you currently do not have the white bin pictured above or require another one, please email tom.martinek@queensu.ca. These will be supplied to laboratories on an as needed basis.

Bags for Bins

Replacement bags will be supplied at the time of pickup by our hazardous waste contractor. If additional bags are required they can also be obtained from Botterell Hall DBMS stores or Chemistry Stores.

Laboratory Glove Recycling

A program is now available for the collection and recycling of **uncontaminated** gloves. The used gloves must be dry and have not been in direct contact with any chemical, biological or radioactive substance. Recyclable glove-types include nitrile, latex, rubber, vinyl and any other type of “stretchable” glove used in teaching, examination and research laboratories.

Note: Gloves **contaminated** with a chemical residue must be disposed in the white **Caution Hazard! Laboratory Glass/Plastic/Debris** bins. Any highly contaminated gloves, or gloves contaminated with a highly toxic, reactive, or smelly chemical must be disposed separately as hazardous waste chemical. Biologically contaminated gloves cannot be recycled and must be autoclaved or disposed as biological waste.

There are two options for the collection of gloves.

1. Recycling through **Kimberly Clark**. Only Kimberly Clark gloves can be collected together for recycling. Gloves must be placed in sturdy clear plastic bags or double bagged. When a bag is full, label as “KC gloves for recycling”, tie or tape bag and request a pickup with EH&S, see below.
2. Recycling through **Terracycle**. Any brand of stretchable gloves (Nitrile, latex, rubber, vinyl etc.) glove can be recycled. Larger quantities of Kimberly Clark gloves must be recycled through option 2, only a small amount can be recycled through option 1 and mixed in with other brands. Gloves must be placed in sturdy clear plastic bags or double bagged. When a bag is full, label as “Mixed gloves for recycling”, tie or tape bag and request a pickup with EH&S.

To Request a pickup, please fill out a hazardous waste disposal form request. Please see example below on how to fill out the form. EH&S waste disposal is found at <https://www.queensu.ca/risk/safety/waste-disposal>.

Hazardous Waste Pickup Request Form								
Building	Room	Contact	Phone	PI	Type of Waste (Indicate :Chemical, Biohazard, Solvent 20L, Empty/Debris or Select from menu)	Chemical Name/Composition	Vol (L/Kg)	Location
Botterell Hall	123	Ted	123	XX	Select from menu: KC Gloves or Mixed Gloves	Gloves for recycling	3 bags	By door

If you are interested in coordinating a recycling program for your laboratory or department or if you have any suggestions/questions pertaining to the changes above, please contact:

Hazardous Materials and laboratory recycling

Tom Martinek (EH&S)

Tom.martinek@queensu.ca,

phone: 613-533-6000 ext. 74976

General Waste

Llynwen Osborne (PPS Sustainability Office)

lrao@queensu.ca, ext. 33396

Appendix A: Chemical Waste Bin Label



Appendix B: Biohazard Waste Bin Label



Appendix C: Radiation Waste Bin Label

