LABORATORY AND WORKSHOP WASTE

- **1.** We separate waste into different streams at the point of generation. Each waste stream is stored separately and follows separate routes. Staff and students must:
 - Be aware of the specific waste streams.
 - Ensure they know which waste goes into which.
 - Know where to place waste for each of the waste streams.

Staff must ensure that waste is removed promptly and not allowed to accumulate. For more information refer to the University's <u>Laboratory Access and Waste Disposal Policy</u>.

2. Non-Hazardous and Low Hazard Solid Waste

General Domestic Waste	(har)	Black Bag	─	General Waste Skip		Recycling/ Incineration
Laboratory Glassware	- cardo	Glass Box		General Waste Skip		Landfill
Sharps		Sharps Bin			Yellow Wheelie Bin	Uplift by Specialist Contractor
Hazardous Chemical Residual Contamination (Non-Sharps)	No GRANDON	Yellow Bags (UN3291)			Yellow Wheelie Bin	Uplift by Specialist Contractor
Electrical Waste	See Technical Staff or Local Safety Coordinator			Collected by Waste Contractor	→	Recycling
Metal Waste		→				Uplift by Specialist Contractor

Care should be taken to ensure that no residual chemicals (e.g. contaminated glassware) exist on anything discarded through this route. The LSC should be consulted for advice on the disposal of any chemically contaminated material.

Yellow wheelie bins are currently located in Meston Quad within a caged enclosure. Contact the NCS TRO for access.

3. Chemicals Waste - Residual Contamination

Laboratory waste with residual chemical contamination (e.g. paper, plastics and non-sharp syringes) should be placed in the Yellow bag waste stream within each laboratory. Once full the Yellow should be placed in the large Yellow coloured wheelie bin prior to specialist collection. Please ensure that the correct wheelie bin is used. The emptying of Yellow bags will be done by the technician responsible for the laboratory area.

This waste is sent for high temperature incineration.

4. Liquid Chemical Waste

Consideration must always be given to disposal of chemicals before purchase. Significant quantities of unwanted chemicals should not be allowed to accumulate.

Estates arrange twice yearly chemical waste disposal by specialist contractor. There will be advance notice issued requiring that forms be completed listing the waste chemicals.

Where possible, dangerous wastes should be rendered innocuous by suitable chemical treatment. Many chemicals can be safely disposed of to drain, as aqueous solution, flushed with plenty of water. If you have unwanted chemicals that cannot be discharged to the drains, contact the Local Safety Coordinator for advice.



Forbidden materials for disposing in this way include:

- Water-immiscible solvents.
- Chemicals which can produce inflammable/explosive vapours in drains.
- Chemicals which can produce explosive deposits in drains (e.g. azides, acetylides,
- Substances that might block drains, or cause injury to drainage workers (e.g. cvanide).
- Formaldehyde-containing solutions.

Hazardous liquid solutions, organic solvents and oils should be disposed of via the University's twice yearly waste chemical uplifts.



5. Solvent Waste

Solvent waste should be separated into 3 categories:

- Organic solvent waste non-halogenated.
- Organic solvent waste halogenated.
- Other chemical waste, including formaldehyde-containing liquids.

Collection containers of suitable material must be clearly labelled and should indicate the proportions of individual solvents and whether any hazardous chemicals are dissolved in the solvent. Do not mix incompatible chemicals – plan and check. Containers must be stored in a solvent cabinet in the laboratory.

For disposal contact the technician responsible for your area to arrange appropriate storage until uplifted by specialist contractors.

6. Sharps Waste



Sharps (e.g. needles, small amounts of broken glass, microscope slides etc) should go into sharps bins (Yellow bins, blue lids). Lids should be fitted securely before use; never attempt to remove lid once bucket is in use. Fill to line indicated on the side of the bucket and once filled, seal the lid. Full bins should be put into 'Sharps' (small) yellow wheelie bin ready for uplift by specialist contractor for incineration.

7. Broken Laboratory Glassware

Broken glass and other sharp items must never be put in general ('black bag') waste bins.

School of Engineering Laboratory & Workshop Policies & Guidance

Uncontaminated broken glass should be placed in a specifically designed, lined, puncture proof glass waste box. The box should be sealed and disposed of directly to the general waste skip. A good quality cardboard box and marked 'Broken Glass' can be used for this.

Contaminated broken glass should be placed in a specifically designed, lined, puncture proof glass waste box. The box should be sealed and stored to be collected as part of the University's chemical waste uplift.

8. Radiological, Cytotoxic or Biological Waste

A risk assessment is required before introducing hazardous chemicals, materials or substances not already listed in this handbook. The risk assessment should deal with the disposal of waste and have approved systems in place prior to its acquisition and use.

9. Other Waste

Used batteries and aerosol cans can be disposed of in the same way as chemicals.

Estates staff can arrange for removal and safe disposal of spent domestic light bulbs and fluorescent tubes.

IT equipment should be returned to IT; uplift can be arranged via the Servicedesk.

Revision Record					
Issue	Name	Date	Reason for review		
1	ES	31/5/2022	Transfer from main handbook		
	ES	26/8/2022	Added alt text for images		