

School of Chemistry, Food and Pharmacy

Waste Procedures



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Contents

1. Introduction	1
2. Waste Guides	1
3. Waste Project Codes	3
4. Non-Hazardous Waste	3
5. Hazardous Waste	4
6. Recycling	7
7. Training Requirements For Stores Personnel	7
8. Health & Safety	8
Appendix 1. List of Waste Project Codes	10

1. Introduction

UoR is committed to minimising the impact and use of natural resources by preventing pollution, reusing materials, recycling and reducing waste to landfill.

In accordance with the university Waste Management Strategy, where there are materials that are no longer required the following hierarchy should be followed:

- Reduce - Avoid the need to discard materials in general. Consider asking suppliers to take back any packaging or re-usable items.
- Re-Use - Just because you no longer need an item it doesn't mean someone else in the University can't make use of it. Consider passing onto another School or Department.
- Re-Cycle - Segregation of materials for recycling is essential for the reduction of waste at the University. For details of what can be recycled please look at the Clean and Green Web site www.reading.ac.uk/cleanandgreen.
- Disposal - Finally, if items need to be disposed of please follow the instructions on the Clean and Green website www.reading.ac.uk/cleanandgreen.

2. Waste Guides

University waste guides are categorised as follows:

2.1 General Waste

General waste is disposed of in black bin liners from offices and classrooms and collected by cleaners and porters in the black wheelie bins outside buildings. General waste goes to landfill.

2.2 Mixed Recycling

Mixed recycling is collected in clear plastic bags and placed in the green wheelie bins. Mixed recycling is taken to a Materials Recycling Facility (MRF) before being bailed and sent to a recycling plant.

2.3 Paper and Card

Paper and card recycling is collected in clear plastic bags and placed in the blue wheelie bins before it is taken away to be recycled.

2.4 Batteries

See Para 6.1.

2.5 Food Waste

Food waste is to be contained in black bags and placed into the grey skip prior to normal waste disposal.

2.6 Furniture

See Para 6.5.

2.7 WEEE/IT Equipment/Fridges and Freezers/Non Hazardous Metal waste

See Para 4.1.

2.8 Printer Cartridges

See Para 4.3.

2.9 CDs and DVDs/Mobile Phones

Non-confidential CDs and DVDs should be placed the internal post and sent to the Post Room. Once the Post Room's barrel of CD/DVD/cassette/videos is full, the porters will take it to the collection point and contact Clean & Green, who will arrange for a bulk collection.

2.10 Confidential Waste

All confidential waste should be placed in Select sacks, available on request from waste@reading.ac.uk. Sacks must only be filled with paper and up to the line only. Plastic covers, comb bindings, lever arch/ring binders and metal bindings (staples and paperclips are acceptable) must be removed as the waste will be shredded. When sacks are ready for collection, an email must be sent to waste@reading.ac.uk stating location and purchase code to be charged against.

2.11 Light Bulbs

See Paras 4.4 for Non Hazardous and 5.6 for Hazardous.

2.12 Paints

Empty tins should be left open to completely dry; they can then be disposed of in general waste.

2.13 Wood

See Para 4.1.

2.14 Waste Oil

Non Hazardous waste oil can be disposed of by sending an email (including relevant project code) to waste@reading.ac.uk and requesting a collection.

Hazardous waste oil must be disposed of via SELECT Environmental Services. Advice should be sought from the Head of Safety & Store Operations (HSSO) regarding procedures, and H&S Manager regarding content.

3. Waste Project Codes

Every transaction cost is charged to a specific project code, indicating who the transaction is for. Project codes consist of one alpha character followed by seven numerical characters.

A list of all Project codes relevant to SCFP stores can be seen at Appendix 1.

4. Non Hazardous Waste

4.1 Disposal of redundant/broken items

Any person wishing to dispose of waste that fits into any of the following categories is to fill out a Disposal of redundant/broken items form <S:\Disposals - Non-Hazardous Waste\Disposal of equipment form Jan 2015.docx> and sent it to the HSSO:

- WEEE.
 - Warp-It. This system is run by Clean & Green and should be used for the disposal of PCs, screens/monitors and keyboards. <https://www.warp-it.co.uk/user-account/>. SCFP items are placed on by HSSO.
 - WEEE skip. All other WEEE should be placed into the WEEE skip and added to the WEEE list by HSSO. <S:\Disposals - Non-Hazardous Waste\wee disposals\completed wee disposals\Disposals 2015\Electrical Asset skip October onwards 2014 on.xlsx>
- Refrigeration Hazardous Waste.
- Items suitable for landfill (skip).
- Asbestos containing material.
- Metal. Waste metal must be logged through the RUCycling site <https://www.warp-it.co.uk/rurecycling> for collection and disposal - it should not be put in the general waste as this is a very expensive way of disposing it and metal is easily recyclable. There is no need to log every nut, bolt, screw or chair leg separately; one listing as misc metal waste will suffice, provided that some indication is given regarding how much of it there is and what it is (pictures are encouraged). Porters will then remove the waste from location and take it to the non-WEEE metal wastes skip at Earley Gate.
- Wood. Wood that is not defined as being furniture is to be placed next to the large grey skip and an email sent to waste@reading.ac.uk requesting collection.

4.2 Empty containers

Empty containers are disposed of as follows:

- Sigma Winchester bottles are washed by the end user and placed into the recycle cage outside chemical store 1.
- All other glass bottles, including Fisher Winchester bottles, are washed by the end user and placed into the blue bottle bank.
- Metal solvent containers must be washed out and their labels removed or made indecipherable, then placed into the grey skip prior to normal waste disposal.

4.3 Used printer cartridges

Used printer cartridges are placed in one of two Hewlett Packard boxes located at the bottom of the spiral staircase in building 006, or in the porter's cabin located on level 2 building 047.

4.4 Light Bulbs

Incandescent light bulb or Tungsten filament bulbs are not classed as hazardous waste; however an email must be sent to waste@reading.ac.uk for collection. They are not to be placed in the mixed glass recycling.

5. Hazardous Waste

Waste is defined as hazardous if it is classified as hazardous in the European Waste Catalogue (EWC or List of Wastes). Generally, waste is hazardous if it, or the materials or substances it contains, are harmful to human health or the environment. Waste is hazardous if it possesses one or more of the properties H1 to H15 set out in the Hazardous Waste Directive. In general, if it contains 'dangerous substances', it is hazardous.

All hazardous waste must be segregated, handled and stored correctly and securely. It must only be transferred to a registered carrier for carriage and eventual disposal to a site authorised to receive it. Hazardous waste must not be put into the University's general waste collections, whether into an office bin, skip or recycling collection. Wherever practicable, waste hierarchy principles must be adopted in order to minimise the quantities of hazardous waste generated.

Safe storage includes a legal requirement to keep the waste secure, not allow it to 'escape' or be accessed by unauthorised persons. It must be labelled with information about the contents and marked as hazardous.

All stores personnel should familiarise themselves with UoR Health & Safety Services Code of Practice No 48 - Hazardous Waste

http://www.reading.ac.uk/web/FILES/health-and-safety/CoP_48_Hazardous_Waste_May_2013.pdf .

Waste chemicals are collected as and when a sufficient build up has appeared in the stores. In accordance with H&SS CoP No 48, the maximum amount of hazardous/special waste SCFP is permitted to hold is:

“Subject to a time limit of 3 months and a quantity limit of 50 cubic metres of non-liquid waste and 1,000 litres of liquid waste.”

“There is a legal time limit for storage on site (12 months) for storing waste without a permit. All other circumstances require a permit from the Environment Agency for waste operations.”

Any mitigating circumstances (reasonably practicable) must be raised with Clean & Green and must be accompanied by a letter of explanation signed by the Head of School. This letter is to be forwarded by the Head of School to the Chair of the University Health & Safety Committee.

5.1 Hazardous waste containment

Waste containers and associated purchase surcharges can be seen at <P:\Waste\Hazardous waste\Hazardous Waste Information Table v2 0.docx>

All halogenated, non-halogenated, aqueous and acidified solvent waste generated within SCFP is poured into 20L plastic drums; the use of 2.5L Winchester bottles for storage of hazardous waste is no longer permitted.

5.2 Hazardous waste separation

- Chemical Store 1
 - Halogenated waste, aqueous waste, silica waste, sharps-clinical and toxic solid organic/inorganic in vials not otherwise specified (NOS) (non-flammable).
- Chemical Store 2
 - Non-Halogenated waste, acidified solvent waste and liquid in vials NOS (flammable).
- Chemical Store 3
 - Harmful and Toxic liquids and solids, and mercury waste, all of which must be accompanied by a Chemical Waste Form signed by the H&S Manager; hazardous WEEE and broken contaminated glass.
- Yellow clinical waste eurocart
 - Clinical waste-soft and clinical waste-hard to include bio-bins and sharps-bins.

5.3 Hazardous WEEE

Anyone wishing to dispose of hazardous WEEE should be directed to HSSO, who will contact the Campus Services' Sustainability Team regarding their disposal.

5.4 Hazardous waste disposal

Direction for waste disposal, including all relevant legislation can be found in UoR Safety Code of Practice 48 - Hazardous Waste [http://www.reading.ac.uk/web/FILES/health-and-safety/CoP 48 Hazardous Waste May 2013.pdf](http://www.reading.ac.uk/web/FILES/health-and-safety/CoP_48_Hazardous_Waste_May_2013.pdf)

- The cost of waste disposal is subject to a 12% overhead charge applied by Estates & Facilities. This is a standard charge applied by E&F on all costs incurred by them on behalf of others.

SELECT Environmental Services are the contracted supplier of hazardous waste disposal services on UoR.

- Eurocarts containing clinical waste-soft and clinical waste-hard to include bio-bins and sharps-bins are collected on a twice weekly basis by SELECT.
- Halogenated, non-halogenated, aqueous and acidified solvent waste is collected on an irregular cycle of three to four months. Notice must be given by HSSO to Campus Services' Sustainability Team (Cc'ing SELECT into any correspondence) accompanied by a completed Hazardous Waste Collection List, with the most current 'as at' date. The forms are located in the following folder; <O:\Safety\Hazardous waste\Solvent disposal>. All other types of waste can be included in the collection; however, consideration must be given to waste volume allowances, where liquid waste will be the highest volume generated in the shortest time. The waste will be collected by Waste Matters Ltd.

5.5 Lecture Bottles

Lecture bottles are ordered via the P2P system on an ad-hoc basis. Any purchase will be noticed during the receipt processing, at which point the HSSO and H&S Manager are to be informed.

There is a back log of lecture bottles awaiting collection. These are legacy items and have been deemed obsolete. Collection of these items is to be reviewed periodically, where appropriate funds may be allocated by the Hd of School to offset the cost of collection.

5.6 Light Bulbs

Fluorescent tubes and Compact Fluorescent Lamp (CFL) or low-energy bulbs are classified as hazardous and therefore are collected by the Clean & Green team for disposal. For collection, an email must be sent to waste@reading.ac.uk.

5.7 Paperwork

Consignment notes relating to solvent and chemical waste disposal – Hazardous Waste Regulations 2005: Consignment Note (currently Waste Matters Ltd) - are to be scanned and saved in PDF form to <..\\.\\Safety\\Hazardous waste\\Solvent disposal>. Hard copies are to be sent to the Clean & Green Environment & Sustainability Co-ordinator.

Clinical/sharps waste collection will be accompanied by a Controlled Waste Transfer Docket (currently SELECT Environmental Services), and are to be filed in the red folder held by HSSO.

6. Recycling

6.1 Batteries

Dry-cell batteries such as NiMH, NiCaD (AA, AAA etc.) or Lithium cells can be recycled through the internal post. There are two used-battery collection tubes (outside SCFP store + inside the porter's cabin, level 2 Food). Upon either reaching full capacity, a request is to be made by the HSSO to Clean & Green for their removal.

6.2 Sigma Winchester Bottles

Sigma Winchester bottles are washed by the end user and placed in the cage located outside Store 1.

6.3 Sigma Plastic Bottles

Sigma plastic solvent containers are to be placed in the large cage located at the loading bay.

6.4 Electrical Equipment

Warp-It. This system is run by Clean & Green and should be used for the recycling of usable PCs, screens/monitors and keyboards. <https://www.warp-it.co.uk/user-account/>. SCFP items are placed on by HSSO.

6.5 Furniture or large items.

Warp-It. This system is run by Clean & Green and should be used for the recycling of usable furniture or large items. <https://www.warp-it.co.uk/user-account/>. SCFP items are placed on by HSSO.

7. Training Requirements For Stores Personnel

- Manual Handling course.
- Introduction to Agresso course.

- Gas Safety Connecting Regulators Practical Workshop + Cylinder Gases Interactive course.
- HSSO only - Warp-It User Training. This should be arranged by contacting the Clean & Green Team - waste@reading.ac.uk or 0118 378 6968.
- Staff are required to undertake the online Sustainability training, available from:
<https://www.reading.ac.uk/cleanandgreen/Whatcanyoudo/SustainabilityTraining.aspx>

Following the successful completion of a course, personnel are to ensure their training records are updated on iTrent; and are to inform Head of Technical Services.

8. Health & Safety

The layout of the store and the shelves therein has been designed with consideration to ergonomic requirements, with a view to accident/incident and long term injury prevention. As far as reasonably practicable, heavier items are placed at the centre of shelving units, whereas lighter items are placed on the bottom shelves and the lightest items on the top.

8.1 PPE

Employees or students who are provided with PPE must wear it when engaged in any process that could potentially cause harm.

Stores personnel must ensure that any person about to undertake a practice or procedure that requires the use PPE, don the appropriate PPE prior to commencing the activity. Stores personnel retain the right to refuse access to areas where PPE is required should any person refuse to conform to the required standard of dress.

8.2 Risk Assessments

All H&S risk assessments are carried out by the HSSO on an annual basis, or upon layout or procedural change. DSEAR risk assessments are carried out by the HSSO in connotation with UoR Fire Advisor; either on an annual basis, or upon layout or procedural change. These risk assessments can be seen at <O:\Safety\Risk assessments\SCFP Stores>.

8.3 HASAW

All stores personnel and other employees are to be aware of their responsibilities under Section 7 of the Health & Safety at Work etc. Act 1974:

“It shall be the duty of every employee while at work -

(a) to take reasonable care for the health and safety of himself and of other persons who may be affected by his acts or omissions at work; and

(b) as regards any duty or requirement imposed on his employer or any other person by or under any of the relevant statutory provisions, to cooperate with him so far as is necessary to enable that duty or requirement to be performed or complied with.”

List of Waste Project Codes

- Chemical waste
 - Chemistry - A2337177 (Premises)
 - Food - A2333116 (Premises)
 - Pharmacy - A2353707 (Premises)
- Solvent waste
 - School waste disposal code - A3277900.
- Silica waste
 - Chemistry - A2354300 - charged to chemistry as virtually all is created by Chemistry.
- Clinical waste
 - School waste disposal code - A3277900 - funded by purchases of orange boxes, sharps-bins and yellow sacks.
- Chemical kegs (6L)
 - School waste disposal code - A3277900.
- IT/WEEE
 - School waste disposal code - A3277900
- Disposal of redundant/broken items
 - Chemistry - A2337177 (Premises)
 - Food - A2333116 (Premises)
 - Pharmacy - A2353707 (Premises)