NTU Hazardous Waste Procedure

In all cases Departments, Colleges, Schools or Teams are responsible for the safety of the waste that they generate.

Hazardous Wastes are wastes with one or more hazardous properties that can cause harm to human health or the environment. **See Appendix B**

Hazardous waste is defined in the Hazardous Waste Regulations as:

a) Any waste listed as hazardous in the **European Waste Catalogue** (See Appendix A within the Environment Agencies WM3 document).

b) Any specific batch of waste that the Secretary of State determines as exceptionally to be classified as hazardous.

c) Any specific batch of waste produced in Wales, Scotland or Ireland that the Welsh Assembly Government, the Scottish Executive of the Northern Ireland Department of Environment respectively determines as hazardous shall also be treated as hazardous waste in England

** To reduce the amount of Hazardous Waste for collection always consider alternative non-hazardous products. This will help reduce the cost of disposal at the end of its life cycle.*

STEP 1:

Determine whether your waste is Hazardous and categorize it. This requires following set procedures provided by the Environment Agency (WM3) for classifying your waste and allocating a six digit code to **each** type of waste you wish to dispose of.

It is advised that your department compiles a list of regularly produced hazardous waste with the appropriate EWC codes.

It is the responsibility of the producer of the waste to correctly identify the waste for disposal - misidentification can lead to a fine by the Environment Agency.

STEP 2:

If your waste is coded as a Mirror entry, the hazardous properties and the concentrations of "dangerous substances" in the waste material need to be identified and recorded. Use information from the safety data sheets to find out whether the waste contains hazardous substances.

STEP 3:

Some wastes e.g. fridges, toner cartridges and television monitors may already have a specific disposal route in place. Check **Appendix A** and follow the instructions.

Wherever possible the wastes should be in the same (or same type) of container as they were originally supplied (e.g. the medicine bottle, solvent drum etc.) and should be clearly labelled.

STEP 4:

In preparation for collection store your waste in a safe environment or allocated storage facility. It is the responsibility of the named contacts in each area to determine what storage facilities are required. Please refer to safety data sheets / substance assessment sheets for further guidance.

It is illegal to mix HW with different codes or with non-hazardous waste. If you mix hazardous with non-hazardous waste, the whole consignment becomes hazardous.

STEP 5:

Departments are required to make arrangements for their Hazardous Waste collections. The cost of such collections must be met from departments' own budgets. Please see appendix A for key contacts.

STEP 6:

Every time a contractor collects a consignment of waste you must fill out a Hazardous Waste Consignment Note. This details your waste using a six digit code from the European Waste Catalogue.

It also includes a 2007 Standard Industry Code or SIC: 85421

The responsibility lies with the producer to ensure that the consignment note is filled out correctly. **Misinterpretation on a consignment note can lead to a fine and/or imprisonment.** It is against the law to send your waste away without a consignment note and you may be subject to a fine if a consignment note is filled out incorrectly.

It is important that a member of staff with an appropriate level of knowledge on the legislation deals with the consignment of Hazardous waste.

If a consignment is rejected by the consignee (e.g. RRM), where possible, identify the reasons and determine how to make the consignment suitable for collection. This may mean, removing an item(s) from the consignment and finding an alternative route for disposal.

STEP 7:

Retain a copy of the consignment note for your records. All consignment notes must be carefully filed and their location must be identified to the Environmental Manager, who keeps a log of all consignment note locations.

By law all paper work must be kept for a period of 3 years.

APPENDIX A.

Please note some types of hazardous waste already have a specific disposal route in place including:

Type of Hazardous Waste	Disposal Route	Contact	School /Department
Batteries	Most will be disposed of through collection points in the libraries at Clifton and the city, or in Bramley at Brackenhurst. Lead-acid and larger batteries must be disposed of separately by individual departments.	Environment Team Ext. **84045**	Environment Team
Fluorescent Tubes:	These are crushed on site by trained staff from Estates.	Steven Swift - ext. **84834**	Estates
Refrigerators:	These should be disposed of through the WEEE cages – collected by CDL	Andy Brown – ext. **86556**	Estates
Computer Monitors (Working & Broken)	Contact IS who will arrange for collection and disposal. (Through the WEEE container and contractor CDL)	Chris Gration – ext. **8609**	Information Systems
All other hazardous AV equipment	These should be disposed of through the WEEE containers – CDL.	Andy Brown – ext. **86556** or Chris Gration – ext. **88609**	Estates / Information Systems
Asbestos	Advice provided though Minor works.	Steven Buil - ext. **82732**	Minor Works
Chemical Waste (Clifton)	Disposed of via BIFFA waste contractors.	Iain Walker – ext. **83304**	School of Sciences and Technology
Clinical/Infectious Waste (Clifton)	Disposed of via PHS waste contractors.	Iain Walker – ext. **83304**	School of Sciences and Technology
Radioactive Waste (Clifton)	Disposed of via Avanti environmental.	Sophie Benjamin - **83822**	School of Sciences and Technology
Clinical/Infectious Waste (Brackenhurst)	Laboratory waste managed by Kirsty Mitchell. Farm and agricultural waste managed by William Donger. Animal and Equine managed by Cat	Kirsty Mitchell – ext. **85254** William Donger – ext. **85224**	Environmental Science / School of Animal, Rural and Environment

	Sanderson. Poultry research unit waste managed by Emily Burton.	Cat Sanderson - **88044** Emily Burton - **85346**	
Sanitary Waste	Disposed of via PHS waste contractors	Andy Brown – ext. **86556**	Estates

If you are looking to dispose of hazardous waste which doesn't fall under any of the above categories then the Environment Team will be able to advise on the correct disposal route or contractor. **Environment.team@ntu.ac.uk**

Appendix B Hazardous Properties

Waste on the List of Wastes are hazardous if they have one or more of the following hazardous properties.

HP1 **"Explosive":** 'waste which is capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings. Pyrotechnic waste, explosive organic peroxide waste and explosive self-reactive waste is included'

HP2 **"Oxidizing":** 'waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials'

HP3 **"Flammable":**
- flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and ≤ 75°C;
- flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;
- flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;
- flammable gaseous waste: gaseous waste which is flammable in air at 20°C and a standard pressure of 101.3 kPa;
- water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;
- other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.

HP4 **"Irritant":**
- Waste which on application can cause skin irritation or damage to the eye.
- Hazards HP 4 and HP 8 are linked because they refer to the potential for harm or damage to tissue at different levels of severity. See C8 for further details.
- Hazardous wastes containing irritant substances will only display irritant properties. Hazardous wastes containing corrosive substances can display either corrosive or irritant properties dependent upon concentration.
- The mechanical irritation produced by some substances, for example mineral wool, is not included within the definition of HP 4.

HP5 **"Harmful":** waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration

HP6 **"Toxic":** waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure

HP7 **"Carcinogenic":** waste which induces cancer or increase its incidence.

HP8 **"Corrosive":** waste which on application, can cause skin corrosion.

HP9 **"Infectious":** waste containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms.

HP10 **"Toxic for reproduction":** waste which has adverse effects on sexual function and fertility in adult males and females, as well as developmental toxicity in the offspring.

HP11 "Mutagenic": waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell.

HP12 "Release of an acute toxic gas": waste which releases acute toxic gases (Acute Tox. 1, 2 or 3) in contact with water or an acid

HP13 "Sensitizing": waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs

HP14 "Ecotoxic": waste which presents or may present immediate or delayed risks for one or more sectors of the environment.

HP15 Waste capable of exhibiting a hazardous property listed above not directly displayed by the original waste

APPENDIX C. - KEY CONTACTS

Responsible People

Campus	Name	Extension
Brackenhurst	William Donger	85224
City	Andy Brown	86556
Clifton	Mark Cosgrove	86691

Other Contacts

College or Department	Name	Extension
Environment Team	Grant Anderson	84045
Head of Procurement	Paul Andrew	88748
Information Systems	Chris Gration	88609
Estates (maintenance)	Steven Swift	84834
Estates (Cleaning)	Andy Brown	86556
Estates (Asbestos)	Steven Buil	82732
College of Art and Design and the Built Environment	Jez Keeling	82330

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College of Science and Technology (Clifton)	Mark Cosgrove	86691
College of Science and Technology Stores (Clifton)	Iain Walker	83304
College of Science and Technology (Clifton)	Matt Smith (safety advisor)	83334
School of Animal Rural & Environmental Sciences (Brackenhurst)	William Donger	85224
School of Art and Design	Phil Young	88435
Environmental Science (Brackenhurst)	Paul Hunsley	85252
Animal & Equine Science	Cat Sanderson	88044
Student Union	Colin Hutchinson	86200 or 07929244537
Health and Safety	Peter Hartshorn	82600