



# The Haz Guide 2008

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## 1. Abbreviations

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BAMA	British Aerosol Manufacturers' Association
BRC	British Retail Consortium
CFL	Compact fluorescent light bulb
CHIP	Chemicals Hazard Information and Packaging for Supply
CIWM	Chartered Institution of Wastes Management
COSHH	The Control of Substances Hazardous to Health Regulations
COTC	Certificate of Technical Competence
DCF	Designated collection facility
Defra	Department of Environment, Food and Rural Affairs
EEE	Electrical and electronic equipment
ELV	End-of-life Vehicle Directive
EWC	European Waste Catalogue
HHW	Household hazardous waste
HSE	Health and Safety Executive guidance
HWRC	Household waste recycling centres
LA	Local authority
LPG	Liquid petroleum gas
NHHWF	National Household Hazardous Waste Forum
NIEHS	Northern Ireland Environment and Heritage Service
ODS	Ozone-depleting substances
OECD	Organisation for Economic Co-operation and Development
OPRA	Operator and Pollution Risk Appraisal
PAN	Pesticide Action Network
PPC	Pollution Prevention and Control
PPE	Personal protective equipment
RoHS	Restriction of Hazardous Substances
RPE	Respiratory protective equipment
SEPA	Scottish Environment Protection Agency
SME	Small and medium sized enterprise
TCP	Technically competent person
TFS	Transfrontier shipment of waste
UN	United Nations
WAC	Waste acceptance criteria

WAMITAB	Waste Management Industry Training and Advisory Board
WCA	Waste collection authority
WDA	Waste disposal authority
WTN	Waste transfer note
WEEE	Waste electrical and electronic equipment

## 2. Foreword

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I am delighted to introduce the Chartered Institution of Wastes Management and the National Household Hazardous Waste Forum's Haz Guide 2008. This document updates the 2005 Guide, which Defra endorsed in the Waste Strategy 2007.

Household hazardous waste in the municipal waste stream can have a number of detrimental health and safety effects, as well as potential negative impacts on the environment. As detailed in the Waste Strategy 2007, regulatory changes over the past three years have strengthened the controls on the safe treatment and disposal of hazardous wastes. This means that local authorities and other organisations collecting household hazardous type waste from householders and businesses, face additional challenges in managing the waste in a safe and compliant manner.

The 2005 Haz Guide was aimed at those managing Household Waste Recycling Centres. The scope of the 2008 Guide has been extended and it is now aimed at all those managing household hazardous type waste including businesses, waste collection and disposal authorities and waste management companies. I would encourage all those managing such waste to read the Guide and follow the good practices it sets out.

Joan Ruddock MP  
Parliamentary Under Secretary of State  
Minister for Climate Change, Biodiversity and Waste

### 3. Introduction

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This document provides good practice guidance for all organisations involved in the collection and management of household hazardous type waste from households and businesses producing small quantities of waste (these terms are described in the box below). The guidance has been produced by Resource Futures with advice from a Working Group, on behalf of the National Household Hazardous Waste Forum (NHHWF) and the Chartered Institution of Wastes Management (CIWM). The guidance replaces and updates the 2005 NHHWF and CIWM Haz Guide. Before reading the guidance there are a number of points that need to be clarified:

**Household hazardous type waste:** This means any material discarded by a household or a business, which is difficult to dispose of, or which puts human health or the environment at risk because of its chemical or biological nature. The Guide is concerned with this type of waste that enters the municipal waste stream either deliberately or accidentally. Further detail regarding the type of material this Guide covers is provided in the [what is HHW?](#) section.

**Households and businesses:** The previous guidance was for those managing household hazardous waste at Household Waste Recycling Centres (HWRCs). This Guide has been extended to incorporate advice for businesses producing hazardous waste, in addition to those responsible for managing or handling hazardous waste from householders and businesses at HWRC and transfer stations. [Who should use the Guide](#) details why various audiences may be interested.

**Small quantities of waste:** The Guide is relevant to those producing or managing small volumes of waste from households or from businesses which because of its nature and quantity, is similar to that from private households. It is understood that businesses producing larger quantities of hazardous waste will already have measures in place to deal with their waste appropriately.

The NHHWF and CIWM established a working group to advise on updating and revising the 2005 Haz Guide, to incorporate advice for small businesses and those handling wastes from small businesses. However, the Guide is still relevant to local authorities and contractors managing household waste at HWRCs. The working group comprised representatives of local authorities, regulatory agencies, waste management operators and other interested stakeholders. For a full list of members of the working group and associated contributors, see the [acknowledgements](#) section.

HHW has been defined by the NHHWF as:

*“any material discarded by a household, which is difficult to dispose of, or which puts human health or the environment at risk because of its chemical or biological nature.”*

With regard to businesses, household hazardous type waste is:

*“any material produced and discarded by a business that is of a similar quantity and nature to that produced by a household, which is difficult to dispose of, or which puts human health or the environment at risk because of its chemical or biological nature”.*

The NHHWF definition does not include all hazardous wastes produced by any business. The waste streams of concern to the NHHWF are those generated primarily but not exclusively by a small business, that are similar in nature and quantity to those that may be produced in a household, for which it is difficult for a business to dispose of because of the hazardous nature and low quantity.

Legally, all waste that is defined as hazardous by the List of Waste Regulations (England) 2005, or equivalent legislation in Northern Ireland, Scotland<sup>1</sup> or Wales, is hazardous. The NHHWF definition and legal definitions overlap to a great extent, but the wider NHHWF definition includes some substances that are not defined as hazardous by statute. These substances are included because they are difficult to dispose of, or have the potential to cause mess or nuisance. See the [what is HHW?](#) section for further information.

HHW has historically represented less than 1% of the household waste stream; however, it requires specialised attention and treatment by virtue of its nature. The Hazardous Waste (England and Wales) Regulations 2005, which came into effect in July 2005, define further categories of waste as hazardous (e.g. fridges and freezers containing ozone-depleting substances, fluorescent lighting tubes and televisions and computer monitors containing cathode ray tubes). In addition, the Waste Electrical and Electronic Equipment (WEEE) Directive and the Batteries and Accumulators and Waste Batteries and Accumulators Directive means there are practical implications for collection and management of HH (Household Hazardous) type waste from households and businesses. Further information can be found in the [legislation](#) and [good practice](#) sections. As a result of regulations and as more recycling of both the domestic and business waste streams occurs, the residual waste fraction may contain a greater concentration of hazardous waste, presenting problems to end users, local authorities and those managing this waste stream.

HH type waste in the municipal waste stream can have a number of detrimental health and safety effects, as well as potential negative impacts on the environment. HH type waste includes many paints and other coatings, garden chemicals, petcare products, motoring products, “household” chemicals and electrical appliances. The problems that can occur when HH type waste is disposed of in the municipal waste stream include:

- danger to waste operatives (e.g. when using on-site compaction equipment)
- contamination of other wastes (e.g. recyclables, compostable material)
- uncontrolled pollutants entering land and water courses
- breach of permit agreements or regulations.

This Guide is designed to provide all organisations involved in the production, collection and management of HH type waste with the information necessary to:

- comply with legal requirements
- achieve management good practice
- minimise the risks to health and the environment associated with the collection and disposal of HHW within the municipal waste stream
- reduce contamination of recycling and composting streams
- minimise the disposal costs to businesses and the management cost to local authorities and waste management contractors for HH type waste
- respond to the growing environmental awareness of the general public.

The issues covered in the guide include:

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<sup>1</sup> It should be noted that the guidance takes account of legislation in England and there may be differences in the Devolved Administrations. However, the best practice guidance and case study material is relevant throughout the UK. Visit the Devolved Administrations page for specific information.

- background information on the collection and management of HH type waste in the UK
- the legal requirements and practical implications of current and forthcoming regulations with regard to hazardous materials
- good practice guidance
- case study and template examples of current arrangements employed by local authorities and private contractors for the collection and management of HH type waste.

### 3.1 Acknowledgements and contributors

*The Haz Guide 2008: Incorporating HH Type Business Waste* was compiled by Resource Futures, on behalf of the Chartered Institution of Wastes Management (CIWM) and the National Household Hazardous Waste Forum (NHHWF).

The production of the guide was funded by the BREW Centre for Local Authorities. Further support for the project was provided by Viridor Waste Management. For any queries relating to the guidance, please contact the NHHWF:

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#### Support and guidance

The production of *The Haz Guide 2008: Incorporating HH Type Business Waste* would not have been possible without the input of a wide range of stakeholders. The NHHWF and CIWM would like to thank the following people who contributed their time and expertise by forming the NHHWF/CIWM working group, reviewing draft versions of the guidance and, in some cases, providing sections of the text. The working group was chaired by Phil Russell from West Sussex County Council and Director of the NHHWF managed by Michael Day from CIWM.

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Defra	Olu Ogunbadejo, Alice Cohen and Sean Ryan
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The Environment Agency	Tony Farthing
Veolia	Paul Hunter
Viridor Waste Management	Bill Griffiths
WAMITAB	Lawrence Strong
West Sussex County Council	Phil Russell, Hannah Rogers
WRAP	Josephine Abbott, Chris Davey

## 3.2 Using the guide

The Guide can be used in one of two ways, as a web page or downloading the page, chapter or full document as a PDF document.

On the website, a table format is used for ease of reading:

- the left hand section of the page acts as a contents table, with links to different subjects
- the middle section of each page presents the information on each subject area
- the right hand section has relevant pictures and links to other related information.

The Guide has a simple “point and click” format. Whenever you click on a link in the contents table, the relevant subject will open in a new window, which you can then close and return to the section you were previously reading.

[Hyperlink text](#) or the [\[?\]](#) symbol also provide links to other relevant parts of the guide.

There is a [search engine](#) which can be used to find specific topics in the guide that you may be interested in.

External links, e.g. to Government websites, will open the relevant website if you are connected to the internet.

Finally, there are a number of acronyms throughout this Guide. The first time an acronym is used in each Chapter a full explanation is provided – the acronym is then referred to thereafter. A comprehensive list of all acronyms used in the Guide is provided [here](#).

## 3.3 Who should use the guide

The Guide is aimed at a number of people:

Who	Why
HH type waste producers (businesses and households)	There is legislation governing the disposal and duty of care obligations of businesses and households. This Guide will help the waste producer dispose of their waste in the most appropriate manner.
Waste collection and disposal authorities	Small quantities of HH type waste can arise in the municipal waste stream either deliberately or accidentally. As recycling activity increases, the concentration of hazardous waste in the residual waste stream will also increase. Waste Collection Authorities (WCAs) and Waste Disposal Authorities (WDAs)

	therefore need to be aware of the associated costs and the potential legal, health and safety and environmental concerns associated with the waste.
Waste management companies collecting waste direct from businesses or accepting HH type waste at their sites	To ensure that there is no breach of site permit conditions, that the company is compliant with regard to consignment notes and waste acceptance on site and to be aware of current best practice.

This guidance takes account of regulations that are in force in England and Wales and it should be noted that regulations and therefore best practice, may differ in [Scotland](#) and [Northern Ireland](#).

### 3.4 What is HHW?

Household Hazardous Waste (HHW) has been defined by the National Household Hazardous Waste Forum (NHHWF) as “any material discarded by a household, which is difficult to dispose of, or which puts human health or the environment at risk because of its chemical or biological nature.”

With regard to businesses, HH type waste is “any material that is produced and discarded by a business that is of a similar quantity and nature to that produced by a household, which is difficult to dispose of, or which puts human health or the environment at risk because of its chemical or biological nature.”

The NHHWF has developed a detailed list of HH type materials that encompasses all wastes that are listed as hazardous under the municipal waste classification of the European Waste Catalogue (EWC), and others that are included as “problematic wastes”. The HH type waste list is divided into the following categories:

- decorative paints, coatings and related products
- garden chemicals and petcare products
- motoring products
- household appliances, household chemicals and household materials.

The full list of products and substances, together with information on the hazards presented by different materials, can be accessed via this [link](#).

The NHHWF definition of household and household type waste encompasses all the “domestic” products falling under the legal definition of hazardous waste, and other “problematic wastes”. All wastes that are listed as such under the EWC are hazardous. The EWC is transposed in England by the List of Wastes Regulations (England) 2005 and by equivalent legislation in Scotland, Wales and Northern Ireland. All items defined as hazardous under the List of Wastes Regulations are subject to control under the Hazardous Waste Regulations (2005). For further information see the [legislation](#) section.

In the good practice options section, information is arranged according to the categories of material that are likely to be separately presented by members of the public at HWRCs and require separate treatment and management. It is advisable that WDAs have facilities to deal with all these categories of hazardous waste at one or more sites in a waste disposal authority area. One of these sites should be accessible to small producers of commercial waste, whereby it would be prohibitively expensive to engage a waste management company to collect and manage the material.

The hazardous waste categories used in this guidance are shown in the table below. The table is sub-divided according to whether some or all of the items in each category are defined as hazardous under the EWC. Wastes that are not listed as hazardous in

the EWC, but fall under the NHHWF definition (they are potentially difficult to manage or dispose of), are referred to as “other problematic wastes”. The links in the table below provide access to good practice guidance for the collection and storage of the different categories of waste. These categories are appropriate regardless of who (a household or business) has produced the waste.

Note that the public should not be encouraged to bring explosive materials or clinical waste to HWRCs, as these are not the most suitable sites for management of these waste types. However, these items are sometimes brought to HWRCs, and the guidance provides brief details of good practice in these cases.

Hazardous waste category	
<a href="#">Asbestos</a>	<a href="#">Gas bottles</a>
<a href="#">Automotive batteries</a>	<a href="#">Household and garden chemicals</a>
<a href="#">Clinical waste</a>	<a href="#">Household batteries</a>
<a href="#">Explosives</a>	<a href="#">Motoring products</a>
<a href="#">Fire extinguishers</a>	<a href="#">Oils and oil filters</a>
<a href="#">Fluorescent tubes</a>	<a href="#">Paints and related DIY products</a>
<a href="#">Fridges/freezers</a>	<a href="#">WEEE</a>
Other problematic wastes	
<a href="#">Aerosols</a>	<a href="#">Tyres</a>
<a href="#">Vegetable oil</a>	

The majority of the categories outlined above are self-explanatory. However, a number of the broader categories require some explanation:

- **Cleaning products and garden chemicals:**

This category includes a wide range of typical household cleaning products including bleaches, detergents, disinfectants and surface cleaners, as well as garden chemicals including pesticides, weedkillers, fertilisers and lawn treatments.

- **Motoring products:**

This category includes antifreeze, brake fluid, diesel, petrol, rust remover and transmission fluid. Many of these motoring products are flammable and will need to be stored in a designated flammable materials container. Some motoring products are listed as separate categories because they are separately collected and managed (e.g. automotive batteries, oil and oil filters and tyres).

- **Paints and related DIY products:**

This category includes both hazardous materials and those which, although non-hazardous, have the potential to cause mess, contamination or nuisance.

Hazardous paints are generally specialist, industrial or commercial paints that are marked as hazardous but are unlikely to be brought to an HWRC by a member of the public. They may however be generated by a business, best practice advice is provided [here](#). Many solvent-based paint strippers, paint thinners and wood preservatives are also hazardous.

Most domestic paints are non-hazardous, but should be collected separately and reused or disposed of in order to avoid mess or nuisance (e.g. contamination of other

wastes, and/or collection vehicles). For further information on paint reuse and identification of hazardous paints, see the [Community RePaint](#) case study.

### **3.5 Data on the number of HWRCs accepting trade waste and tonnage data**

There is little information available about the number of HWRCs that legitimately accept waste from trade sources. The most recent surveys into this issue were conducted during the Trade Waste input to Civic Amenity Sites project (2001) and the National Assessment of Civic Amenity Sites (2002). The surveys revealed that in England, 10 out of 120 authorities accepted (and charged for) trade waste at their HWRCs. This corresponds to about 48 HWRCs.

The BREW Centre for Local Authorities conducts six-monthly surveys of local authority trade waste activity. The most recent survey, in September 2007 revealed that 43 out of 395 local authorities provide bring facilities to traders (although there is a loose definition of what "bring" is in this survey, so it could refer to HWRCs, trade bring sites, transfer stations etc).

### **3.6 Dealing with trade waste**

This section discusses how local authorities can deal with enquiries from local businesses as to how to dispose of hazardous waste materials. Few local authorities accept hazardous trade waste at HWRCs and it is only recommended if there is sufficient space and facilities to ensure that there is no impact upon the service provided to householders.

Where a local authority has a large site which acts as a transfer station, as well as serving HWRC functions, then they may wish to consider accepting hazardous materials from SMEs. This section outlines the advantages and disadvantages of establishing such collections, and provides guidelines as to the advice to give businesses for alternative means of disposal. The sections on [best practice](#) and [case studies](#) may provide additional detail on particular options.

The Hazardous Waste (England and Wales) Regulations (2005) will affect most premises at which hazardous wastes are produced. Most SMEs, civic buildings and other similar premises will now have to engage and comply with these regulations.

Where hazardous waste is to be produced or removed from any commercial premises in England and Wales, the premises must notify (register with) the Environment Agency. Certain types of premises are exempt from the requirement to notify the Environment Agency if they produce less than 200kg of hazardous waste in a 12-month period. If over 200kg of hazardous waste is produced in a 12-month period, the premises must notify the Environment Agency. Guidance on notification, including the on-line notification facility, can be found on the [Environment Agency's](#) hazardous waste pages. In Northern Ireland and Scotland, there is no need to register, but pre-notification of hazardous waste movements are still required.

A consignment note must be completed to accompany hazardous waste when it is moved from any premises, including premises that are exempt from registration as discussed above. Further information on consignment notes is available on the Environment Agency [website](#).

Moreover, the Hazardous Waste (England and Wales) Regulations 2005 apply to a number of new categories of waste that were not defined as Special Waste under the previous regulations. Under these Regulations movement of all hazardous waste from a business requires a hazardous waste consignment note and fee payable to the Environment Agency, irrespective of the need to register as a hazardous waste

producer. These “changed status” wastes include materials that are likely to be produced by many small businesses (e.g. fridges and freezers, televisions and computer monitors containing cathode ray tubes and fluorescent lighting tubes) either on a regular or infrequent basis. Ultimately, this means that there will be an increase in the amount of hazardous waste being produced by businesses. Many businesses will look to local authorities to provide a solution and/or disposal route for hazardous waste, potentially via HWRCs.

Local authorities may wish to consider accepting hazardous waste from SMEs at larger sites which might act as transfer stations. The following table outlines the main advantages and disadvantages of taking this approach.

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Ability for SMEs to easily dispose of hazardous waste</li> <li>• Chargeable system can be enforced</li> <li>• SMEs would have to be registered with the Environment Agency to be able to bring hazardous waste to a HWRC</li> <li>• Discourages SMEs from disposing of hazardous waste through the residual waste stream</li> <li>• Reduce incidents of fly-tipping of hazardous wastes</li> <li>• Producing improved value for money to local tax payers</li> <li>• Less risk to operatives and reduce environmental impact on the waste stream</li> <li>• Generate revenue to manage SME waste in future.</li> <li>• Use improved services as an opportunity to educate businesses on their duty of care for waste disposal.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential volume of unknown hazardous waste from traders</li> <li>• Capacity to store and manage unknown quantities of hazardous waste</li> <li>• Charges would have to vary depending on waste type and quantity. Site operatives may have to make complex judgements on the charges applied</li> <li>• Unidentifiable and extremely hazardous wastes may be brought to the site, where the true cost of disposal is unknown</li> <li>• Large amounts of cash may be handled on site</li> <li>• Increased paperwork for site operatives and accounts for waste management companies to process</li> <li>• May lead to increased trade waste abuse at HWRCs</li> </ul>

An alternative approach would be to offer a hazardous waste collection service for SMEs in a local authority area. These services are often known as “toxic taxi” services. Brief details of toxic taxi services offered by the City of London Corporation can be found [here](#).

For those local authorities that do not intend to provide a trade hazardous waste service through HWRCs, toxic taxis or contracts, good practice would point towards providing commercial enterprises with sound information on how to comply with the regulations. This may include involving community organisations or social enterprises where items can be reused or have value.

There are a number of sources of guidance that could be highlighted to the business community regarding general waste management issues and compliance with the Hazardous Waste (England and Wales) Regulations 2005. For free advice including waste minimisation, waste management and hazardous waste, contact [Envirowise](#). In particular, it should be made clear that businesses have a [duty of care](#).

However, if a business contacts a local authority for advice, the following information could be used as a guide:

First, enquire whether the business is exempt from the requirement to notify the Environment Agency. If the premises are listed below and produce less than 200kg in a 12 month period, they are fully exempt from notification.

Premises that can be exempt from notification include:	
<ul style="list-style-type: none"> <li>• Office premises</li> <li>• Shop premises</li> <li>• Premises used for agriculture; Premises listed in section 75(5) of the Environmental Protection Act 1990 (e.g. caravans, residential and nursing homes, universities, schools and other educational establishments, hospitals)</li> <li>• Veterinary surgeries</li> </ul>	<ul style="list-style-type: none"> <li>• Premises listed in Schedule 1 of the Controlled Waste Regulations 1992 (eg premises used by charities, campsites, prisons and other penal institutions and halls/other premises used for public meetings)</li> <li>• Dental surgeries</li> <li>• Doctors' surgeries</li> <li>• Health clinics</li> <li>• Ships</li> </ul>

If the premises are listed above and produce more than 200kg of hazardous waste in a 12-month period, then they are not exempt and should be registered with the Environment Agency: 200kg equates to approximately 10 small TVs, 14 lead-acid batteries, 500 fluorescent tubes or 5 small domestic fridges. Premises notification information can be found [here](#).

Many local authorities provide a huge amount to support local businesses on environmental issues, from provision of recycling services, improving the local high street environment to demonstrating how businesses can reduce costs by using energy and water more efficiently. Further information on these issues can be found at the [Environmental Advisory Service](#). Details of projects funded through the BREW Centre for Local Authorities can be found [here](#).

### 3.7 Waste Strategy for England

One of the Government's underlying principles informing the Waste Strategy for England 2007 (herein referred to as the Waste Strategy 2007) is the protection of public health through safe management of potentially hazardous substances. The Waste Strategy goes on to say that hazardous waste and its impacts need to be reduced further, especially given that further separation of recyclable and compostable material may lead to increased concentrations of hazardous waste in the residual waste fraction. The previous NHHWF guidance document on the management of HHW was endorsed by the Government in the Waste Strategy 2007 and local authorities were encouraged to adopt it.

With regard to household hazardous type waste, the Waste Strategy 2007 suggests the following:

- voluntary agreements with the relevant producers in order to increase separate collection, recycling and recovery of potentially hazardous household wastes
- pursuit of policies which lead to reductions in hazardous waste arisings
- finding ways to recover material and energy resources from hazardous waste as well as ensuring its safe treatment and disposal
- development of additional treatment facilities and infrastructure for hazardous waste

- encouragement of all authorities to provide a separate collection service for HHW streams and publicising such services
- work on decorative paints and garden chemicals with a view to discussing with the relevant sectors the scope for voluntary agreements to increase separate collection, recycling and recovery of these wastes.

Waste Strategy 2007 also suggests that local authorities can play a key role in helping SMEs better manage their waste and adopt more resource efficient practices. This should be seen as encompassing the management of hazardous waste from the SME sector. Two key waste streams mentioned in the Waste Strategy 2007 are decorative paints and garden chemicals.

### **3.8 Local authority waste pages**

The [Waste Information Network](#) (WIN) was developed by the [South East Improvement and Efficiency Partnership](#) (SIEP) as a support tool for local authorities. The site provides up-to-date information on all relevant aspects of waste management and includes an [A-Z directory](#) of all English local authority waste web pages. To use the site you must be registered to WIN. Registration is easy and free, you can register on the [WIN home page](#).

### 3.9 Business resource efficiency and waste advice

The table below details a number of different sources of information and their contact details depending on the requirements of the business

Is your business looking for advice and support?	Do you want advice on environmental legislation and regulations or information on lawful waste carriers?	Call or visit the Environment Agency 08708 506 506 <a href="http://www.environment-agency.gov.uk">www.environment-agency.gov.uk</a> <a href="http://www.NetRegs.gov.uk">www.NetRegs.gov.uk</a>	Call or visit Envirowise 0800 585 794 <a href="http://www.envirowise.gov.uk">www.envirowise.gov.uk</a>
Do you want to work with other businesses to create opportunities from waste or consider commercial opportunities through sharing expertise, capacity, logistics etc?	Do you want advice on improving your environmental performance, reducing the volume of materials and utilities you use and how to make financial savings?	Call or visit the National Industrial Symbiosis Programme (NISP) 0121 433 2650 <a href="http://www.nisp.org.uk">www.nisp.org.uk</a>	Call or visit the Carbon Trust 0800 085 2005 <a href="http://www.carbontrust.co.uk">www.carbontrust.co.uk</a>
Do you want help finding a recycling service provider or how to establish recycling in your organisation?	Do you want to find a waste management contractor in your area?	Call or visit the Waste and Resource Action Programme (WRAP) 0808 100 2040 <a href="http://www.recycleatwork.org.uk">www.recycleatwork.org.uk</a>	Visit the waste directories for England and Wales, Northern Ireland or Scotland <a href="http://www.wastedirectory.org.uk">www.wastedirectory.org.uk</a>
Is your business looking to implement an Environmental	Do you want help to write an environmental policy or tips to implement an EMS?	Call or visit Envirowise	

Management System (EMS)?	0800 585 794 <a href="http://www.envirowise.gov.uk">www.envirowise.gov.uk</a>
Are you a business that has or needs waste materials or products?	Call or visit the National Industrial Symbiosis Programme (NISP) 0121 766 4560 <a href="http://www.nisp.org.uk">www.nisp.org.uk</a> Visit Business Links to find your regional operator and waste exchange <a href="http://www.businesslinks.gov.uk">www.businesslinks.gov.uk</a>
Do you have or want small scale materials or waste products?	
Do you want to reduce scrap or defect rates? Improve delivery; make better use of operational equipment	Call or visit the Manufacturing Advisory Service 08700 111 875 <a href="http://www.mas.dti.gov.uk">www.mas.dti.gov.uk</a>
Are you a manufacturing business looking to improve your production processes?	
Are you a business that wants to reduce their hazardous waste?	Visit the HazRed Programme <a href="http://www.hazred.org.uk">www.hazred.org.uk</a>
Are you a local authority looking for advice on how to support businesses in your area?	BREW Centre for Local Authorities <a href="http://www.eas.local.gov.uk/brew">http://www.eas.local.gov.uk/brew</a>
Do you want to see case studies from other local authorities? Join the network or find out about events	

## 4. Legislation

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This section provides guidance on legislation relevant to collections and management of HH type waste. It does not cover all aspects of the legislation, therefore for comprehensive advice; users are encouraged to visit the appropriate Government department or regulatory agency website. Links are provided [here](#). The intention here is to summarise general requirements and as conditions may vary, specific guidance will need to be sought for individual sites.

Further guidance on the practical implications that recent and forthcoming changes to legislation will have for the management of household hazardous (HH) type waste can be found in the [good practice](#) section.

Within this guide, there are references to regulations, legislation and European Union directives. As a member of the European Union, the UK is bound by European directives. The relationship between them is explained below.

<p><b>European Union Directive:</b> a directive is a legislative act from the European Union which requires member states to achieve a particular result without dictating the means of achieving that result. Directives allow member states some leeway as to the exact rules to be adopted. A list of European environmental legislation is available <a href="#">here</a>.</p>
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<p><b>Legislation:</b> this is the act of making laws, in the UK by the Government. Before legislation becomes law it is known as a <a href="#">Bill</a>, and after enactment, it is known as an <a href="#">Act of Parliament</a>.</p>
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<p><b>Regulation:</b> this is a law or rule laid down by the Government and it is secondary legislation which is used to implement a primary piece of legislation.</p>
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An example is the Batteries Directive, [Directive 2006/66/EC of the European Parliament](#) and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators. This was published in the [Official Journal](#) on 26 September 2006. The UK and all other Member States have a deadline of 26 September 2008 to transpose the provisions into national law. As a result, in December 2007, the Government held a [stakeholder consultation](#) on the implementation of the Batteries Directive to help develop the regulations.

### 4.1 Definition of waste

Waste is defined in the Environmental Protection Act 1990 as:

*“...any substance or object ...which the producer or the person in possession of it discards or intends or is required to discard”*

Thus a prime consideration for a substance or item to be waste is that its owner has discarded it. Whether the material is in a usable condition and can be forwarded to a reuse organisation is not a consideration in this context. The likely exception relevant to hazardous wastes is gas bottles. If gas bottles brought to a site are owned by a gas company (i.e. hired by the user) they are not waste, however orphaned bottles are.

### 4.2 The European Waste Catalogue (EWC)

The EWC lists all wastes according to generic industry or process. Those that are hazardous are identified with an asterisk (\*). The Environment Agency has published a consolidated EWC. Wastes that are classed as hazardous outright (i.e. regardless of the quantity of the material present in the waste) are absolute entries and are highlighted in red and marked with an "A". Other wastes require further consideration

to determine whether they are hazardous or not, depending on the amount of dangerous substances present above threshold concentrations. These are known as mirror entries and are highlighted in blue and marked with an "M". Wastes not classified as hazardous are shown in black without any markings. Further guidance on the EWC can be found on the [Environment Agency](#) website.

## 4.3 The Hazardous Waste Regulations

### 4.3.1 What is hazardous waste?

The Hazardous Waste (England and Wales) Regulations 2005 define hazardous waste as:

- any waste listed as hazardous in the [List of Waste \(England\) Regulations 2005](#)
- any specific batch of waste that the Secretary of State determines is exceptionally to be classified as hazardous
- any specific batch of waste produced in Wales, Scotland or Northern Ireland that the Welsh Assembly Government, the Scottish Executive, or the Northern Ireland Department of the Environment determines is exceptionally to be classified as hazardous.

The Secretary of State can also declare additional types of waste as hazardous by virtue of making regulations under Section 62 of the Environmental Protection Act (1990).

The Hazardous Waste (England and Wales) Regulations (2005) can be viewed [here](#) and the List of Waste (England) Regulations 2005 can be viewed [here](#).

There are separate regulations for Scotland, Wales and Northern Ireland, although the Welsh regulations will contain the same provisions as for England. For further information please see [Regulations in the devolved administrations](#).

### 4.3.2 The Hazardous Waste Regulations (and domestic waste)

Domestic waste has been defined by the Department for the Environment, Food and Rural Affairs (Defra) for the purposes of the Hazardous Waste (England and Wales) Regulations 2005 as:

*“waste from accommodation used purely for living purposes (and without commercial gain) and which is disposed of via the normal mixed domestic refuse collection”.*

In general, domestic waste is excluded from the controls of the Hazardous Waste (England and Wales) Regulations 2005. However, this exclusion does not apply to either asbestos waste or separately collected fractions of domestic waste, as discussed below.

#### 4.3.2.1 Asbestos

Domestic waste is generally exempt from the provisions of the Hazardous Waste (England and Wales) Regulations 2005. However, the 2005 Regulations do apply to asbestos which is also domestic waste. The Regulations do not impose any obligations on the occupier of the domestic premises. Therefore, domestic asbestos waste can be transported to a HWRC by a member of the public following building work that they have conducted without being consigned. However, where the asbestos waste is produced by a contractor who is engaged by the householder to undertake any construction, modification, repair and maintenance or demolition of his premises, then the Regulations apply to the contractor irrespective of the fact that the asbestos is produced at domestic premises and the waste must be consigned before removal.

Further detail regarding asbestos can be found in the acceptance and storage of HH type waste [here](#) and key issues for businesses section [here](#).

#### **4.3.2.2 Separately collected fractions**

Separately collected fractions of domestic waste are waste that is, “collected from premises on which it is produced separately from the collection of other wastes from those premises”. Hazardous wastes brought to HWRCs by members of the public can be regarded as being separately collected from the mixed waste stream; therefore the Hazardous Waste (England and Wales) Regulations 2005 apply to such wastes. However, the Regulations do not require that a consignment note should be provided when hazardous domestic waste is removed from the domestic premises and then taken to premises (such as a HWRC) for collection, disposal or recovery. Guidance states that from the time domestic hazardous waste arrives at any, “establishment or undertaking... for collection, disposal or recovery, such wastes will be subject to all the provisions of the Regulations”.

Waste consigned has to be allocated the relevant code that describes the waste and these are defined in the List of Waste (England) Regulations 2005. Most waste deposited at HWRCs is mixed municipal waste, for which the appropriate code is 20 03 01. Municipal wastes that are hazardous are listed with an asterisk and can be either absolute entries or mirror entries. Absolute entries are substances that are always hazardous (e.g. 20 01 19\* pesticides). Waste substances listed as mirror entries are hazardous because they contain dangerous substances above certain threshold concentrations (e.g. 20 01 27\* paints, inks, adhesives and resins containing dangerous substances). Mirror entries have counterparts that do not contain dangerous substances above the threshold concentrations and are therefore non-hazardous (e.g. 20 01 28 paints, inks, adhesives and resins other than those mentioned in 20 01 27). The following web links provide further information:

- advice on how to interpret the definition and classification of hazardous waste can be found in the Environment Agency’s technical guidance “Interpretation of the definition and classification of hazardous waste WM2” and can be viewed on the [Environment Agency’s](#) website
- further information about the Hazardous Waste (England and Wales) Regulations 2005 can be found on [Defra’s](#) hazardous waste pages
- NetRegs, and other relevant guidance produced by the Environment Agency, can be accessed through the following [link](#).

#### **4.3.3 Hazardous Waste Regulations (and business waste)**

This Section deals with the Hazardous Waste (England and Wales) Regulations 2005 and business waste in England, Northern Ireland and Wales.

Hazardous waste is generated in one form or another by most businesses and includes items such as fluorescent tubes, computer monitors as well as more obvious materials such as solvents and chemicals. The EWC provides a full list of hazardous and non-hazardous wastes.

Premises must be registered with the Environment Agency before hazardous waste leaves the site. However, some premises will be exempt if:

- a premises produces less than 200kg of hazardous waste in any 12-month period
- the premises is an office, a shop, used for the collection of waste electrical and electronic equipment, or a dental, veterinary or medical practice

- the premises use a registered carrier (or one exempt from being registered) to remove hazardous waste from where it was produced.

If the premises are not exempt, it must register, even if it produces less than 200kg of hazardous waste in any 12 month period.

If a premises is a farm it does not need to register unless it produces more than 500kg per year. This limit is likely to be reviewed and farm premises should be aware this figure may alter in the future. For more guidance on exemptions and advice on whether your business needs to register visit the [Environment Agency](#).

All hazardous waste must be transferred using the consignment note system, visit the relevant section of the [Haz Guide](#).

#### **4.3.3.1 Premises notification**

Under Part 5 of the Hazardous Waste (England and Wales) Regulations 2005, where hazardous waste is produced or removed from premises (other than exempt premises), the premises must be notified to the Environment Agency.

The duty to notify premises rests with the producer of the waste. This would normally be regarded as the owner or occupier of the site. Any producer may ask another person (e.g. their waste contractor) to register on their behalf. Where organisations have multiple premises (e.g. HWRCs) each premises must be notified to the Environment Agency, unless exempt. If a single premises is occupied by different organisations producing hazardous waste, each part of the premises must be individually notified. The annual charges per site for notification vary depending on the method chosen: £28 in writing (via paper form), £23 by telephone or £18 in electronic format. (These requirements apply only in England and Wales: see the section on the [devolved administrations](#) for the requirements in Scotland and Northern Ireland.)

For further guidance on notification contact: Environment Agency, National Customer Contact Centre 08708 506506.

Any movement of hazardous waste requires the use of the consignment note system. A useful guidance document for England is “HWR03A – consignment Notes: Standard Procedure”.

In cases where businesses have small amounts of hazardous waste, they can use a collector that operates a multiple collection round. In these cases, the collector can fill in most of the consignment note. It is the producer’s responsibility to ensure collections and movements of hazardous waste meet with all relevant regulation and are disposed/recovered/recycled by a permitted contractor.

Templates can be downloaded from the [Environment Agency](#) website.

Producers who are moving waste across borders e.g. from Scotland to England etc, should refer to the additional Environment Agency [guidance](#).

#### **4.3.3.2 Site inspections**

The Hazardous Waste (England and Wales) Regulations 2005 (Part 8, Regulation 56) stipulate that the Environment Agency will carry out appropriate periodic inspections of hazardous waste producer’s premises. Inspections will usually be undertaken as part of normal compliance inspections for permitted sites.

#### **4.3.3.3 Consignment notes and acceptance at transfer stations**

A consignment note is required to move hazardous waste from one site to another site. In England and Wales, since 16 July 2005, it has not been a requirement to pre-notify the Environment Agency of the movement of hazardous waste. In Scotland and Northern Ireland pre-notification still applies.

When a consignment of hazardous waste is to be removed from the premises at which it was produced (i.e. when waste is passed from one person to another), the person taking the waste must have a written description and a consignment note must also be completed and signed by both persons involved in the transfer. The system in England and Wales requires the consignee (i.e. the registered carrier) to return a copy of the consignment note to the consignor (the producer or holder).

The Hazardous Waste (England and Wales) Regulations 2005 specify the requirements for consignment notes and consignment codes. Schedule 4 of the regulations provides a model consignment note that specifies what should be included. Consignment notes should either follow this format, or contain the same information in substantially the same format.

The model consignment note can be found [here](#):

- [templates](#) can also be downloaded from the Environment Agency website.
- the Environment Agency has published procedures [Consignment Notes: Standard Procedure](#)
- further guidance can also be downloaded from the Defra's '[Waste: Can You Handle It?](#)' document.
- electronic consignment notes can be used, as detailed [here](#).

#### **4.3.3.4 Record keeping, inventory and consignee returns**

If you are involved in the movement of hazardous waste, including:

- Its removal from your premises
- Transport
- Intermediate storage
- Disposal or recovery

You must maintain records in a register of each waste involved. You must also maintain records where hazardous waste is disposed or recovered at the same site as its production or storage.

As a producer, consignor, holder, carrier or consignee, you need to:

- Keep records in a register of hazardous waste movements.
- Supply specified information to the Environment Agency or the emergency services, when required to do so.

If you are a consignee (you receive hazardous waste) you must also:

- Keep records showing the locations where wastes are kept or deposited on your site
- Provide returns to producers, holders or consignors.

More information about record keeping can be found [here](#)

## **4.4 Duty of care**

The [Duty of Care](#) is laid down in Section 34 of the Environmental Protection Act (1990) and relates to all forms of controlled waste (not just hazardous waste). The legislation requires holders of waste to keep the waste safe and only pass it on to an authorised person.

The [Environmental Protection \(Duty of Care\) Regulations 1991](#) requires all transfers of waste to be recorded in a Waste Transfer Note (WTN). The Landfill Regulations amend the Duty of Care Regulations to require that a Duty of Care transfer note identifies the waste to which it relates by reference to the appropriate codes in the EWC. In the case of hazardous waste, WTNs are replaced by consignment notes.

The Waste (Household Waste) Duty of Care (England & Wales) Regulations was introduced in November 2005, placing a duty on householders to take reasonable measures to ensure that household waste produced on their property is passed on to an authorised person. There is no requirement for householders to complete waste transfer notes.

Practical guidance on the Duty of Care for everyone who is under the duty can be found in the Defra [summary leaflet](#), or by accessing the [web pages](#).

The current Duty of Care system is being reviewed by Government, with the aim of introducing new regulations in 2009.

## 4.5 Health and safety

There are significant health and safety implications in collecting and handling hazardous waste at HWRCs and transfer stations. Regulations affecting health and safety at such sites include:

- [The Management of Health and Safety at Work Regulations 1999](#)
- Environmental Permitting Regulations (in England and Wales)
- Hazardous Waste (England and Wales) Regulations 2005
- The Control of Substances Hazardous to Health Regulations (COSHH).

A key aspect of all the regulations is the need for health and safety risk assessments for each element of working practices.

The Health and Safety Executive (HSE) has developed "[COSHH Essentials](#)" to help organisations comply with COSHH.

COSHH requires employers to:

- assess the risks to health from chemicals and decide what controls are needed
- use those controls and make sure workers use them
- make sure the controls are working properly
- inform workers about the risks to their health
- train workers.

A COSHH assessment will identify the levels of risk and limitation requirements. Much of this will relate to safe working practices (e.g. manual handling) and the use of personal protective equipment (PPE) and respiratory protective equipment (RPE). The Personal Protective Equipment at Work Regulations 1992 (PPEW Regulations) came into force on 1 January 1993. Practical guidance on the regulations is given in the HSE booklet "[Personal Protective Equipment at Work: Guidance on Regulations](#)".

The collection and storage of hazardous domestic waste has specific COSHH implications. COSHH relates to storage arrangements and loading areas (e.g. ventilation requirements) and the following:

- accident/near miss reporting
- chemical packaging

- emergency action/first aid
- fire fighting
- quality systems
- safe loading of vehicles.

There are separate considerations for the handling of asbestos. For further information see the asbestos section and relevant [HSE guidance](#):

The HSE has produced guidance on general health and safety considerations for [HWRCs](#). The HSE document can be found at: For more general Health and Safety advice relating to the waste management industry visit the [HSE](#). Alternatively, HSE inspectors at local offices can be referred to for further guidance and advice on safety matters.

## 4.6 Environmental Permitting

The Environmental Permitting Programme aims to reduce red tape for industry and regulators, by streamlining and consolidating the processes of obtaining, varying and transferring permits. The first phase came into force on 6 April 2008, whereby the Environmental Permitting (England and Wales) Regulations 2007, replaces over 40 statutory instruments with a single set of Regulations. The environmental permitting programme delivers more flexibility for industry, a simpler risk-based system for regulators and continued protection of the environment and human health.

Any site that required a Pollution Prevention and Control (PPC) permit or waste management licence prior to 6 April 2008 will require an environmental permit under the new regulations.

The Regulations that are now covered by environmental permitting include:

- End of Life Vehicles Directive
- Integrated Pollution Prevention and Control (IPPC) Directive, Part A(1) (including the Titanium Dioxide Directive)
- Large Combustion Plant Directive
- Solvent Emissions Directive
- Waste Electrical and Electronic Equipment Directive
- Waste Framework Directive
- Waste Incineration Directive
- Landfill Directive
- Hazardous Waste Directive

Further guidance is available on the [Defra](#) and [Environment Agency](#) websites.

Some permits are valid only for certain kinds of waste or certain activities. If changes are being made to operations at an HWRC (e.g. providing segregation systems for hazardous domestic waste), checks will need to be made with the regulatory body that the changes are allowed under the site permit conditions and for the types of waste concerned.

Whether or not an exemption or permit is required will depend on the specific circumstances of the site.

The deposit and storage of hazardous waste at a HWRC is now subject to the Environmental Permitting (England and Wales) Regulations 2007 in England and

Wales. In Scotland and Northern Ireland the system of waste management licences are still in force. All regulators work to ensure that the authorised activities do not cause pollution of the environment, harm to human health or serious detriment to local amenities.

If a site is operating under an environmental permit there will be site-specific requirements attached to the permit which are determined by the regulator. Any changes will have to be agreed with the regulator. The following resources offer further advice and support:

- [Defra environmental permitting pages](#)
- [Environment Agency environmental permitting pages](#)
- Information on environmental permitting at HWRCs in England and Wales is provided by the Environment Agency, including application forms, guidance and [standard permits](#) (i.e. templates).

The Environment Agency has a range of standard permits which cover 28 low to medium risk activities that previously required a waste management licence, such as waste transfer stations and civic amenity sites. The draft standard permit for waste operations can be found [here](#).

## 4.7 Landfill

The Landfill Directive sets out to reduce hazardous waste being disposed to landfill. Certain wastes are banned such as hazardous liquids, flammable, corrosive and explosive wastes. The co-disposal of hazardous waste with non-hazardous waste at the same landfill site is also prohibited. The basic characterisation of waste at an early stage is therefore essential.

Waste producers are required to ensure that their waste meets the Waste Acceptance Criteria (WAC). Wastes being sent to landfill must also satisfy the waste acceptance criteria. The landfill regulations are now replaced by the Environmental Permitting Regulations (England and Wales) 2007. Further details regarding environmental permitting are available [here](#).

Hazardous waste may only be disposed to landfill if the site is authorised to accept that particular type of waste (an authorised site may not be able to accept all types of hazardous waste). Therefore, the Environment Agency determines that different types of hazardous waste may only be accepted at a hazardous waste landfill if:

- the landfill owner's permit allows it
- certain waste acceptance criteria (WAC) are met and
- the landfill operator is prepared to accept it.

Hazardous waste must be treated before it can be sent to landfill to meet the limits set by a landfill site's WAC. Treatment means physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to:

- reduce its volume
- reduce its hazardous nature
- make it safe to handle
- make it easier to recover.

The Environment Agency has published detailed guidance on landfill acceptance requirements and problematic waste streams:

- [England and Wales: Guidance for waste destined for disposal in landfills \(pdf\)](#)
- [England and Wales: Guidance on Problematic Waste Streams](#)
- further information can be found at [Landfill of hazardous waste](#)
- [England and Wales: List of transfer stations and landfill sites potentially accepting hazardous waste](#)
- [Northern Ireland: List of permitted sites \(19 September 2007\)](#)

### **Pre-treatment of non-hazardous waste**

It has been a requirement since 30 October 2007 that non-hazardous waste must be treated before it can be landfilled. As this refers to non-hazardous wastes, segregation of HH type waste is not sufficient.

Waste producers therefore need to consider whether to pre-treat non hazardous waste themselves or to hand over the responsibility to a waste management contractor. Businesses should take the opportunity to decide whether they need to produce the waste at all.

The Environment Agency defines treatment as “physical, thermal, chemical or biological processes (including sorting) that change the characteristics of waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery.”

Any source segregation of waste and subsequent recycling will be a treatment method that satisfies the regulations. The waste producer should hold a written declaration or a transfer note detailing the amount of waste sorted for recovery or treatment and the type of treatment.

Guidance produced by the Environment Agency is available [here](#).

### **Banning of liquid wastes**

Since 30 October 2007 all liquid wastes are banned from landfill in England, Northern Ireland and Wales. The Environment Agency has produced guidance on diverting non-hazardous liquid wastes from landfill in England and Wales. This [guidance](#) includes interpretation of the term ‘liquid waste’. In Scotland liquid wastes are usually banned from landfill under a site’s Pollution Prevention and Control (PPC) permit.

## **4.8 Staff competencies**

The Environmental Permitting (England and Wales) Regulations 2007 require that operators are competent to hold an environmental permit. The concept of operator competence is explained in Chapter 8 of the Environmental Permitting core guidance.

An important element of operator competence is the technical competence of staff. Operators of relevant waste activities are required to demonstrate technical competence through an approved industry scheme. Initially two Schemes have been proposed, although neither have as yet (April 2008) been approved.

The scheme developed jointly by the Chartered Institution of Wastes Management (CIWM) and the Waste Management Industry Training and Advisory Board (WAMITAB) offers a range of qualifications that can be used by individuals to demonstrate technical competence. Waste activities are classified as low, medium or high risk, and the level of qualification required varies according to the risk category of the activity. Individuals providing technical competent must be in a position to control the day to day activities carried out at the permitted site. In order to maintain technical competent status individuals must pass a ‘continuing competence’ assessment every two years.

The scheme developed by the Environmental Services Association (ESA) and Energy and Utility Skills (EU Skills) is based on the development and maintenance of a competence management system (CMS). A CMS can apply to individual activities, groups of activities, or extend across all relevant waste activities carried out by a company. The CMS identifies available skills, future training needs, and ensures competent staff are deployed in key posts. A CMS is reviewed and audited annually by an independent accreditation body.

Other schemes may be developed and submitted to Defra for approval. A list of approved schemes will be available on the Defra website.

For further information see the Environment Agency (2007) guidance document, [Environmental Permitting Regulations \(England and Wales\) 2007 Regulatory Guidance Series, No EPR 5 Operator competence](#).

Further information on training and recommendations for good practice are available in the [good practice](#) section of this Guide.

## 4.9 Ozone Depleting Substances Regulations

The principal legislation controlling ozone-depleting substances (ODS) is the European Council Regulation No. 2037/2000 on Substances that Deplete the Ozone Layer (as amended). The Environmental Protection (Controls on Ozone-Depleting Substances) Regulations 2002 and the Environmental Protection (Controls on Ozone-Depleting Substances) Regulations (Northern Ireland) 2003 apply controls on the substances that have an adverse impact on the ozone layer in the upper atmosphere.

Most fridges or freezers brought to HWRCs contain chlorofluorocarbons and/or hydrochlorofluorocarbons (both of which are ODS) in the coolant or within the insulating foam. These substances need to be removed and treated in a permitted process. Halon fire extinguishers (usually green) are also regulated under the ODS Regulations.

Guidance on ODS is provided by the department for Business, Enterprise and Regulatory Reform ([BERR](#)) and the [Environment Agency](#). Further guidance is available from [Defra](#).

## 4.10 Restriction of Hazardous Substances Regulations

The aim of the Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (RoHS) Directive is to limit the environmental impact of electrical and electronic equipment when it reaches the end of its life.

The RoHS directive relates to the WEEE Directive and applies to categories 1-7 and 10 listed under Annex 1A of the WEEE Directive, as well as electric light bulbs and household luminaires. Products placed on the EU market on or after 1 July 2006 may not contain more than the specified limits of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE).

The Directive applies to those who manufacture Electrical and Electronic Equipment, those who import these goods into the EU; those who export to other Member States; and those who re-brand equipment produced by others. Further information is available on the BERR [website](#).

## 4.11 International shipment of waste

How a business manages their international shipment of waste will depend on:

- Whether the waste is being sent for recovery or disposal. Most shipments for disposal are prohibited, but if they are allowed they are subject to notifications controls.
- The type of waste that is being moved for recovery. European legislation contains several annexes specifying the types of hazardous and non hazardous waste. This has been simplified by the Environment Agency in the [consolidated waste list](#).
- The 'status' of the countries of dispatch and destination. If waste is moved within the EU, the procedures are different from those that apply if waste is moved out of or into the EU or to and from OECD countries.

The EU and UK regulations and policies on international shipments of waste are:

- Council Regulation 1013/2006/EC (the Waste Shipments Regulation)
- The Transfrontier Shipment of Waste Regulations 2007
- UK Plan for Shipments of Waste

More Guidance can be found on the [Environment Agency](#) website.

## 4.12 Manufacture and use of chemicals

Any company that manufactures, imports, sells or uses chemical substances will need to comply with REACH, the Registration, Evaluation and Authorisation of Chemicals.

REACH requires manufacturers and importers to register substances with the European Chemicals Agency (ECHA). REACH applies to substances manufactured or imported into the EU in quantities of 1 tonne per year or more. Key frequently asked questions are available [here](#).

A brief summary guide is available on the [Defra](#) website.

The key dates for implementation of REACH are:

Key Date	Issue
1 June 2007	REACH came into force
1 June 2008	European chemicals agency will become operational
1 June 2008 – 30 November 2008	Pre-registration period

Some chemicals are exempt from REACH, as they are controlled by other legislation. This includes pest control substances, radioactive substances and waste. Also other substances that are considered to cause a minimum risk are also excluded. A full list of exemptions can be found in annex five of the [regulations](#). The exemptions will be reviewed in 2009 and may change.

## 4.13 Regulations in the devolved administrations

It is important to note that there are legislative differences between the different countries in the UK, with the devolved administrations having distinct arrangements. All legislation is intended to ensure compliance with Directive 91/689/EEC on Hazardous Waste (the Hazardous Waste Directive).

The legislation covering England and Wales is identical and regulated by the Environment Agency. The legislation removes the requirement for pre-notification before movement of hazardous waste and introduces producer registration and consignee returns. The National Waste Strategy for Wales promotes better and more

widespread facilities for management of HHW. Now all HWRCs should have facilities (where it is practicable and safe to do so) to receive and store, prior to proper disposal, bonded asbestos sheets, and facilities for receiving and storing, prior to recycling, oils, paints, solvents and fluorescent light bulbs.

The legislation for Scotland and North Ireland, and issues relating to cross-border transfers of HHW in the UK are discussed below.

#### **4.13.1 Scotland**

Much of the legislation in the “Haz Guide” is not relevant for Scotland as the situation is very different however best practice may still be applicable. Further information about hazardous waste legislation in Scotland, including its relevance for domestic waste and specifically [hazardous wastes](#) is available from [SEPA](#).

Unlike the rest of the UK, Scotland amended the legislation covering the control of Special Wastes early in 2004. The Special Waste Amendment (Scotland) Regulations 2004 retain a system similar to that used throughout the UK under the Special Waste Regulations. However, some amendments were required to ensure compliance with the Hazardous Waste Directive. Refer to the sources of further information:

- the [Special Waste Amendment \(Scotland\) Regulations 2004](#)
- [further amendments](#) have been made and are available from SEPA
- SEPA has issued guidance on consigning Special Waste, which can be found [here](#)
- further guidance can be found through [NetRegs](#).

#### **4.13.2 Northern Ireland**

The Hazardous Waste Regulations (Northern Ireland) 2005 (SI 300) were agreed in late June 2005, along with the List of Waste Regulations (Northern Ireland) 2005 (SI 301). Guidance on Hazardous Waste Regulations can be found [here](#).

Northern Ireland has adopted the term “hazardous waste”, but otherwise will maintain a system like that described for Scotland that retains many of the requirements of the previous Special Waste regime. Consignment procedure is largely unchanged, the requirement for pre-notification to the Environment and Heritage Service Northern Ireland (EHSNI) prior to movement of waste remains but there are some adjustments, including unique coding for each particular movement of hazardous waste.

Changes to the legislation have tightened the consignment procedure to ensure a producer receives copies to show their waste has been suitably disposed of or treated. The ban on mixing, the requirement for separation and the introduction of the term domestic waste now apply.

#### **4.13.3 Cross-UK border issues**

Guidance on cross UK border movements is available [here](#).

Where waste is moved into England from Scotland, Northern Ireland or Gibraltar there will be no requirement to complete a separate consignment note under the English regulations provided the waste is accompanied by a consignment note compliant with the requirements of the Hazardous Waste Directive (i.e. a consignment note completed in line with the requirements of Scottish and Northern Ireland legislation). The varying legislation provides for “mutual recognition of consignment notes”.

Where waste is moved from England into Scotland or Northern Ireland a copy of the consignment note must be prepared for SEPA (where the waste is to be consigned to

a consignee in Scotland), or for the EHSNI (where the waste is to be consigned to a consignee in Northern Ireland); and an additional copy is provided for the consignee. The consignment note should be completed in order to meet the requirements of the English regulations; however, the consignor must also pre-notify SEPA/EHSNI 72 hours prior to the movement. The carrier shall ensure the additional copy of the note prepared for the consignee travels with the consignment and is given to the consignee on delivery of the consignment.

The regulations regarding cross border movements of hazardous waste can be viewed [here](#).

#### **4.14 European Union legislation in development**

A revision of the [Waste Framework Directive](#) (WFD) is currently being negotiated. It contains simplification measures and revisions which the UK Government believes will improve existing legislation and provide greater clarity for business and industry. These include:

- \* repeal of the Waste Oils Directive
- \* repeal and integration of the Hazardous Waste Directive into the revised WFD
- \* a provision enabling the development of EU-wide environmental and quality criteria to determine that specified waste streams have been fully recovered and have ceased to be waste.

At the Environment Council on 28 June 2007, the Council reached political agreement on the proposed revision of the WFD. The politically agreed text was incorporated without significant amendment into the Common Position which was adopted when the Environment Council met on 20 December 2007. The Council's Common Position was formally communicated to the European Parliament on 21 February 2008, and the dossier is now subject to its Second Reading in the European Parliament.

Separately, the European Commission issued new guidance on the distinction between non-waste 'by-products' and waste residues in February 2007. Defra and the EA will build on this guidance in issuing their guidance on the definition of waste referred to above.

Further environmental legislation to establish a framework for the setting of eco-design requirements for energy-using products aims to improve the environmental performance of products throughout the life-cycle, by integration of environmental aspects at an early stage of product design.

The Energy Using Products Directive 2005/32/EC was finalised and published on 6 July 2005 with 'implementing measures' to follow after European Commission studies are completed. Defra is the lead Government department that will bring any implementing measures into UK law. Further detail is available [here](#).

#### **4.15 Producer responsibility**

Producer responsibility is aimed at ensuring that businesses who place products on the market take responsibility for those products once they become waste. It implements the 'polluter pays' principle. This type of policy is used to implement several European Commission Directives that deal with "priority waste streams", for which there is concern regarding their impact on the environment, for example, the Waste Electrical and Electronic Equipment (WEEE) and End of Life Vehicles (ELV) Directives. In these, and the Batteries and Accumulators Directive, responsibility is placed on producers to bear the cost of collection, sorting, treatment and recycling or

recovery. Specific detail regarding producer responsibility of materials that are classed as, or contain hazardous materials are detailed below. The policy can address:

- the minimisation of material in the product including the reduction of the use of hazardous substances
- design of new products so that they are easier to recycle at end of life
- encourage reuse of the product
- target levels of recycling or other forms of recovery.

Administration of producer responsibility legislation is split between the Defra and BERR, formerly the Department of Trade and Industry.

#### **4.15.1 Batteries**

On 26 September 2006, [Directive 2006/66/EC](#) on batteries and accumulators and waste batteries and accumulators was published in the Official Journal of the European Communities (herein called the Batteries Directive). This Directive repeals Directive 91/157/EEC.

Member States have until 26 September 2008 to transpose the provisions into national law. Once transposed in the UK, the Directive will reduce the quantity of waste batteries going to landfill and increase the recovery of the materials they contain. Both hazardous and non-hazardous batteries are covered. Defra and BERR share responsibility for this; Defra are leading on portable/household battery provisions (including portable batteries arising from business and industry) and on treatment provisions for all batteries and BERR are leading on automotive/industrial batteries and single market provisions. For further information on producer responsibility for batteries or other sources of information, visit the [Defra](#), [BERR](#) and [WRAP](#) web pages.

Businesses that produce and sell batteries may be affected by this Directive. It aims to make these companies responsible for the collection and recycling of used batteries.

The Batteries Directive aims to:

- create a European framework for collection and recycling schemes
- maximise the separate collection and recycling of spent batteries and accumulators
- improve the environmental performance of batteries across their life cycle
- prevent disposal of batteries to landfill and incineration
- promote recovery of metals contained in batteries.

Key requirements of the Directive include:

- A partial ban on portable nickel-cadmium batteries that excludes batteries used in medical equipment, emergency lighting and alarm systems, and cordless power tools. However, the exemption for power tools is subject to review after four years.
- Collection targets for spent portable batteries of 25% of average annual sales 4 years after the directive is implemented in the UK, rising to 45% by September 2016.
- A ban on the disposal of untreated automotive and industrial batteries in landfill or by incineration.

The definition of the different types of batteries and the associated targets are detailed in the table below. Currently the UK recycles approximately 90% of all lead acid industrial and automotive batteries and only approximately 3% of non-lead acid

industrial and portable batteries. The reasons for such a low recycling rate is that there is substantial cost for relatively low collection weights which mean it is not necessarily economically viable to recycle portable batteries. In comparison, landfill is still relatively inexpensive. Batteries currently collected in the UK are usually sent overseas for recycling because the UK does not currently have full recycling processes for Alkaline Manganese and Zinc Carbon batteries (80% by weight of batteries placed on the market).

In addition to collection targets, there are recycling efficiency targets (by average weight) which come in five years after the Regulations come into effect. These targets are:

- 75% for Nickel Cadmium
- 65% for Lead Acid
- 50% for all other batteries

Type	Definition	Typical Chemistry
Portable batteries	“any battery, button cell, battery pack or accumulator that is sealed; and can be hand carried; and is neither an industrial or automotive battery or accumulator”	Alkaline Zinc Chloride Air Depolarised Zinc Air Nickel Cadmium Nickel Metal Hydride Silver Oxide Rechargeable Lithium (Lithium Ion, Lithium Vanadium, Lithium Polymer) Single Use Lithium (Lithium Manganese Dioxide, Lithium Thionyl Chloride, Lithium Sulphur Dioxide)
Industrial batteries	“any battery or accumulator designed for exclusively industrial or professional uses or used in any type of electric vehicle, unsealed but is not an automotive battery, sealed but is not a portable battery”	Lead acid Nickel Cadmium
Automotive batteries	“any battery or accumulator used for automotive start, lighting or ignition power”	Lead acid

#### 4.15.2 Waste Electronic and Electrical Equipment (WEEE)

The WEEE Directive is now in force in the UK. This legislation has its origin in the EC Directives relating to Waste Electrical and Electronic Equipment (WEEE) (2002/96/EC) and to the Restriction of Hazardous Substances (RoHS) (2002/95/EC). The Regulations were amended in December 2007 and entered into force on 1 January 2008. The [WEEE \(Amendment\) Regulations 2007](#) clarify how reuse can be counted as part evidence compliance and the recording of WEEE arising. There are no major policy changes.

The WEEE Directive is designed to encourage and regulate the collection, reuse, recycling and recovery of waste electrical and electronic equipment, for which it sets targets. The following requirements are set out in the directive's text:

- free take back of WEEE from private households, including retailer take back
- a collection target of 4kg of household WEEE per head of population per annum to be achieved by 31 December 2006.
- Producer responsibility for financing the collection, treatment and reuse, recycling and recovery of separately collected WEEE

A wide range of waste equipment is covered by the directive:

1. large household appliances
2. small household appliances

3. IT and telecommunications equipment
4. consumer equipment
5. lighting equipment
6. electrical and electronic tools
7. toys, leisure and sports equipment
8. medical devices
9. monitoring and control equipment
10. automatic dispensers.

The WEEE Regulations were transposed into law in January 2007 with full producer responsibility coming into effect in July 2007 for England and Wales. There are separate regulations in Scotland and Northern Ireland. The Regulations include producer responsibility requirements that oblige producers of electrical and electronic equipment to arrange for collection (from a central point), treatment and recovery/recycling of household WEEE. The Government is keen to utilise existing infrastructure so HWRC operators and transfer stations are able to apply for free collections of collected WEEE from HWRCs under these arrangements, if they put in place the necessary infrastructure to become DCFs.

The WEEE regulations provide an exemption from environmental permitting for the repair and refurbishment of WEEE for reuse and a further exemption from environmental permitting for storage of WEEE. All exemptions must be registered with the Environment Agency. The Waste Electrical and Electronic Equipment (Waste Management Licensing) (England and Wales) (Amendment) Regulations (2007) amended the regulations by inserting the appropriate charge for registering the repair and refurbishment exemption.

If WEEE items are separately collected at Designated Collection Facilities (DCF) they must be transferred for recycling or reuse to an Authorised Approved Treatment Facility (AATF). There is a duty on the UK to encourage reuse of whole products and their components before material recovery is considered.

Sites have to meet a series of infrastructure requirements to become DCFs. These requirements, contained in Annex III of the WEEE Directive, are likely to include, "impermeable surfaces (with provision for spillage collection facilities and, where appropriate, decanters and cleanser degreasers) and weather-proofing for appropriate areas... as well as... appropriate containers and suitable signage to guide users" (DTI 2004: 38).

There are recycling and recovery targets for the different categories, which are as follows:

- categories 1 and 10: 80% recovery and 75% recycling (recovery can include waste to energy)
- categories 3 and 4: 75% recovery and 65% recycling
- categories 2,5,6,7 and 9: 70% recovery and 50% recycling
- gas discharge lamps: 80% recycling

A comprehensive guide to the WEEE Regulations can be found [here](#). Further guidance can be obtained through the [Defra](#) website.

Guidance on Best Available Treatment, Recovery and Recycling Techniques and Treatment of WEEE has been issued for those treating WEEE. For further information

on producer responsibility for WEEE, visit the [Defra](#) and [BERR](#) web pages. Further detail is also provided in the [Good Practice](#) and [Case Study](#) sections of this Guide.

BERR fund the WEEE Settlement Centre, the role of which is to record evidence of WEEE treatment and to allow issuance and holdings of Evidence Notes to be monitored. The BERR Settlement Centre can be accessed [here](#).

Some WEEE will be classed as hazardous waste and therefore subject to the Hazardous Waste (England and Wales) Regulations 2005. However, the WEEE Regulations make it clear that there will be no effect on other legislation and so WEEE that is also hazardous (such as CRTs, fluorescent tubes and CFC containing refrigeration units) will still need to fulfil the requirements of the Hazardous Waste (England and Wales) Regulations 2005.

### **4.15.3 End of Life Vehicles (ELV)**

Approximately 2 million vehicles are scrapped in the UK every year, with around 1.2 million of these go to vehicle dismantlers and 0.6 million go directly to scrap yards. The EC directive on End-of-Life vehicles (ELVs) aims to reduce or prevent the amount of waste produced from ELVs and increase the recovery and recycling of ELVs that do arise.

The Regulations that transpose the End of Life Vehicles (ELV) Directive have been in effect since November 2003. The Directive's main requirements are for producers to limit the use of hazardous substances and increase the quantity of recycled material used in the manufacture of their vehicles and that they design vehicles for easy recycling. As of 2007, producers are to pay all or a significant part of the costs of free take-back of no or negative value vehicles to a treatment facility. Treatment facilities must hold a site permit if accepting vehicles which have not been depolluted and set minimum technical standards for all sites that store or treat ELVs. In addition, producers must meet a recovery target of 95% (85% recycling/re-use) by 1 January 2015<sup>2</sup>. Further information is available on the [Defra](#) and [BERR](#) websites.

### **4.15.4 Decorative paint**

At the moment there is no producer responsibility for the paint industry. As detailed in the ENDS Report 394, November 2007, paint and varnish manufacturers and suppliers are set to work with Government on a scheme to minimise the volumes of paint thrown away by consumers. The [British Coatings Federation](#) says it is 'poised' to discuss with Defra how to tackle the 28,000 tonnes of paint and varnish entering the waste stream each year, which could increase by 30% by 2020. Defra's Market Transformation Programme (MTP) suggests the Government consider a producer responsibility scheme, a ban on sending paint and varnish to landfill and conduct research into paint composition. There were also suggestions from MTP for retailers to increase the number of drop off points for leftover paint and varnish, buying back unopened tins for resale and providing better advice to customers to estimate how much paint they need.

ICI Paints has sponsored Community RePaint since its inception, and provides technical support and advice to Resource Futures, who manages the initiative. It is now ICI Paints' strategy to secure industry-wide support for the programme and Resource Futures is in dialogue with ICI, national coatings manufacturers and the British Coatings Federation with regard to the role Community RePaint can play in delivering the requirements of the Waste Strategy 2007 for waste paint. This states that the Government intends to take forward work on decorative paints with a view to discussing the scope for voluntary agreements to increase separate collection, recovery and recycling of paint.

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<sup>2</sup> There was also a recovery and recycling target for 1 January 2006

Community RePaint is also working closely with national DIY retailers (e.g. Homebase and B&Q), the trade (e.g. Dulux Decorator Centres) and has growing links with the trade body, the Painting and Decorating Association.

## 5. Key issues

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This summary of key issues takes account of legislative requirements when managing or handling hazardous household type waste.

### 5.1 Contracts and service specifications

A number of considerations should be taken into account by local authority procurement teams when developing service specifications and contracts for procurement of HHW services. The factors outlined below should be regarded as indicative only and contracts will vary considerably according to the particular circumstances of individual local authorities.

The service specification should state exactly what sort of materials are to be covered. This may best be achieved by listing the materials covered in an appendix. Depending on the length and scope of the contract, it may also be necessary to include a clause specifying that any materials that become hazardous by virtue of changes in legislation will also be covered by the contract.

The services to be provided by the contractor need to be clearly specified. These will depend on a number of factors, including arrangements for overall management of HWRCs and whether responsibilities for on-site storage and handling of HHW are to be separate from responsibilities for collection and subsequent transport, treatment or disposal of waste.

The contract should specify which HWRCs are covered and take into account any proposed future site closures or openings, or changes to the sites that accept HHW. Upon award of a new contract is an appropriate time for local authorities to review (and possibly extend) the geographical spread of service provision for different hazardous materials.

For collections of hazardous materials from HWRCs (which need to cover transport and treatment or disposal of hazardous waste) many local authorities use a number of separate contractors for different fractions of the waste stream. It may be possible in this way to minimise treatment and disposal costs. However, separate contracts will need to be drawn up with each of the companies involved. Appointing one company to collect all hazardous wastes from HWRCs is likely to be more expensive, but will reduce the amount of staff time required in terms of procurement and contract management.

Local authorities may wish to consider integrating other hazardous waste services into HHW contracts, e.g. collections of fly-tipped hazardous waste or a toxic taxi service.

Reference should be included to the need for the contractor to comply with relevant legislation and also to keep up to date with relevant codes of practice, guidance or statutory instruments.

The contract should specify the training that all operatives dealing with HHW should receive.

The contract should specify that any penalties prescribed by law, and any subsequent costs, resulting from omissions on the part of the contractor should be deducted from payments to the contractor by the local authority.

The length of the contract is an important consideration. As relevant legislation and guidance has been subject to rapid change in recent years it is advisable for contracts to be relatively short (no longer than five years) in the first instance, with options for

subsequent renewal. Contracts must make allowance for changes in legislation to affect service provision.

## 5.2 Risk assessments

It is a legal requirement for employers to carry out a suitable and sufficient risk assessment of their activities. Risk assessments should be conducted whenever arrangements for collection of hazardous material not previously collected at a HWRC are introduced, or following any incident or near miss. A risk assessment should also be conducted whenever existing storage or collection arrangements for HHW material are modified.

The Health and Safety Executive defines a risk assessment as “an organised look at your work activities” involving [5 Steps](#). These steps are:

1. Look for the hazards.
2. Decide who may be harmed and how.
3. Evaluate the risks arising from the hazards and decide whether existing precautions are adequate or if more should be done.
4. Record your significant findings.
5. Review your assessment from time to time and revise it if necessary.

Common hazards include

- Compacting of waste by crushing, baling or melting and thereby expose themselves to dust and fumes (e.g. of heavy metals etc.) which can be injurious to health.
- storing materials in sufficient inventories and with other materials that may interact with each other and cause a more serious risk.

When conducting a risk assessment, employers should consider the importance of suitable PPE and the importance of good welfare (washing) facilities to minimise the risks associated with skin contact/ingestion of biohazards, chemicals etc. Further detail is available in the [Key issues for businesses](#) section of the Guide.

## 5.3 Site security

Collections of HHW at HWRCs have a number of implications for site security. As noted in the sections on acceptance and storage of various HHW materials, containers for certain types of HHW should be kept locked. These include:

- asbestos
- car batteries
- flammable materials
- gas bottles
- household and garden chemicals
- WEEE.

If temporary storage facilities for explosive materials are provided on HWRCs then these should be kept locked and located in areas that are not accessible to the public.

As noted in the section on trade waste issues, there are a variety of issues that local authorities need to consider before accepting hazardous trade waste at HWRCs or

transfer stations. The section on [trade waste](#) provides guidance for local authorities as to how to deal with enquiries from SMEs regarding hazardous waste.

However, it is likely that a widening of the definition of hazardous waste will lead to greater numbers of small businesses trying to deliver their hazardous wastes to HWRCs. In addition to an increase in quantities of hazardous materials that have to be managed and disposed of by local authorities, this may cause problems for site staff in terms of increased incidence of abusive behaviour. This section therefore provides brief guidance on the means of tackling these problems.

There are a number of potential options to discourage trade waste abuse. These include:

- disclaimer forms
- height barriers
- site entrance security checks
- trailer bans or size limits
- van bans and permit systems
- weight limits.

For further information and detail, see [National Assessment of Civic Amenity Sites 2004](#).

Many of these measures will involve some degree of increased costs, particularly those involving extra staffing for security checks at site entrances. However, such security checks are arguably the most effective way of reducing trade waste abuse, and the reductions in quantities of waste coming on to HWRCs that are achieved in this way may reduce costs to such an extent that the costs of staffing are covered.

If security guards are employed at site gates, local authorities and their HWRC contractors should ensure that they are integrated into basic in-house training activities on wastes accepted at sites and where they should be deposited. Security staff can often become the effective first point of contact for members of the public.

Case study examples of effective security systems and measures to reduce trade waste are provided [here](#).

## 5.4 Segregation of HHW from households

The Hazardous Waste (England and Wales) Regulations 2005 apply to hazardous waste materials from domestic sources if these materials are separately collected from the mixed domestic waste stream. Hazardous items at a HWRC should be considered to be “separately collected”:

- if handed over/identifiable to site staff as a separate item
- if handled as a separate item, e.g. fridge, television
- if stored on site separately from the mixed municipal waste stream.

Local authorities should make every reasonable effort to keep hazardous items out of the mixed domestic waste stream. This should include provision of appropriate facilities at HWRCs combined with the use of site signs, leaflets and websites, as well as explanation given by HWRC staff to guide site users and intervention to ensure that HHW is deposited in the correct container.

## 5.5 Minimum service provision

A reasonable geographic spread of HWRC facilities for HHW should be provided in every WDA area. Both the proximity of the HWRC facilities to the households they serve and the availability of other HHW collection services should be considered in determining what is a reasonable geographic spread. In general:

- all HWRCs should have facilities for the more common types of HHW, including WEEE (hazardous WEEE such as cathode ray tube televisions and monitors, fridges, fluorescent tubes), gas bottles, automotive batteries, engine oil and household batteries.
- at least one HWRC in any WDA area should provide facilities for asbestos and for household and garden chemicals.

HWRCs can be designated as Designated Collection Facilities under the WEEE Regulations, the code of practice and more advice is available [here](#).

If segregated HHW is presented at a HWRC that cannot accept it (i.e. does not have relevant facilities or is not permitted), it should be dealt with by:

- asking the householder to take it to a specified HWRC that can accept it.
- asking the householder to take it away and dispose of it via the bulky collection, [toxic taxi](#) or other suitable service.

If a site supervisor judges that it is unsafe for a householder to take hazardous waste away (e.g. in the case of a large, leaking container of unidentified chemicals) then the material concerned should be placed in a sealed screw top container or other UN approved container and temporarily stored in a locked container inaccessible to the public. Senior managerial staff and collection contractors should be immediately notified and the material should be collected for appropriate disposal as soon as possible.

Hazardous waste that has been dumped at the site should be removed for storage at an alternative HWRC with adequate facilities, or collected by a local authority's collection contractor for treatment and disposal, as soon as possible.

If an item brought to the site is judged to represent an imminent danger to site staff or users, the site should be evacuated following a documented emergency procedure that includes notification to the emergency services.

## 5.6 Separation of HHW items from mixed waste containers

Mixed waste at HWRCs should be coded as mixed municipal waste (20 03 01) in all normal circumstances, even though it may contain some hazardous items. Hazardous items are not required to be removed from the mixed waste stream at HWRCs for the purposes of ensuring that the skip remains non-hazardous.

Items may need to be removed in some circumstances:

- for health and safety or operational reasons (e.g. an explosive found in the skip, significant contamination with oil etc)
- if they make the skip contents unlike mixed municipal waste in character
- if they represent a substantial environmental risk.

In deciding whether an item should be removed from the mixed waste stream, consideration needs to be given to the practicalities and risks to health and safety and the environment of removing the item (this may be different for waste held in skips compared to waste held in bays). For the above protocols to work, HWRC staff should

be capable of identifying different hazardous items and capable of making a judgement on the relative risks of the different options of dealing with hazardous items.

## 5.7 Disposal costs

This section provides information on the costs of appropriate treatment and disposal routes for different categories of HHW.

The main focus of this guidance is on good practice in management of HHW at HWRCs. The guide does not provide listings of waste management companies that can arrange for collection and onward treatment or disposal of HHW from HWRCs. The options range from companies specialising in the management of particular waste streams, to larger waste management companies that may be able to provide a comprehensive service covering all HH type waste.

The website of the Environmental Services Association provides a directory that can be searched by region and by waste management function. This is a good source of information for companies providing collection and treatment services for HHW.

The information on costs presented in this section is taken from two main sources:

- consultation with members of the Haz Guide working group
- a survey of local authorities undertaken for this project.

A range of different figures were cited by the organisations consulted in developing the guidance. Also, it should be noted that in some of the categories presented below (eg household and garden chemicals) the costs of disposal vary depending on the specific substance to be disposed.

Therefore, costs are presented as a range for each category of waste material in the summary table below. More detailed information on the range of costs reported by different local authorities and recommended as being appropriate by the working group is presented in the sections for individual materials below.

The cost to dispose of hazardous wastes can vary considerably and is dependent on a variety of factors such as specific waste type, quantity, location and type of waste management contractor. For comparison, the recommended charge levied by Community RePaint has also been provided.

The costs in this table are inclusive of compliance, transport, collection and treatment

Waste type	Unit	Costs
Aerosols (empty aerosols to be integrated in cans collections)	200l drum	£80-£180
Asbestos	Tonne	Up to £650
Automotive batteries	Each	£2.50-£5
Automotive batteries	Tonne	£65 cost £200 rebate
Clinical waste	-	n/a
CRT	Each	Typically less than £10 per unit
Explosives	-	n/a
Fire extinguishers (water, powder or dry foam)	Each	£4-£25

Waste type	Unit	Costs
Fire extinguishers (ozone depleting substances)	Each	£8-£180
Fluorescent tubes	Each	£0.30-£1.65
Fridges/freezers (includes commercial scale units)	Each	£6.50-£45
Gas bottles	-	Free -£200 (specialist gases require separate pricing regime and could exceed these costs)
Household and garden chemicals	Tonne	£750-£2000
Household batteries	Kg	£0.35-£1.95
Oils		Variable - free of charge or generation of income but can cost £37 per tonne
Oil filters	200l drum	£60-£100
Paints and related products (tins)*	200l drum	£80-£180
Tyres	Each	£0.69-£4.00
Vegetable oil	Tonne	Generally free of charge
WEEE	Tonne	£120-£315 (or free for household type WEEE if a site is a designated collection facility under the WEEE Regulations and is authorised to accept business waste)

\* To be segregated along with household and garden chemicals if not suitable for reuse because of potential hazardous nature.

<b>Community RePaint Recommended Charging Rates for Paint Donations</b>	
Charges to painters and decorators (and other companies) for accepting paint:	
Good quality, reusable paint	up to 50p/litre
White and magnolia paint	up to 25p/litre
Less attractive colours, quality, etc...	75p - £1.25 /litre
Charges to local authorities	
Collections of surplus paint from Household Waste Recycling Centres	from £50/tonne/collection upwards









## 5.8 The Chemicals (Hazard Information and Packaging for Supply) (Amendment) CHIP Regulations 2005






The Chemicals (Hazard Information and Packaging for Supply) (Amendment) CHIP Regulations 2005, came into force on 31 October 2005. The regulations, called CHIP 3.1, effect all new entries, revisions, deletions and amendments to the classification and labelling requirements of hazardous substances. This has enabled the CHIP regulations to meet the [Dangerous Substances Directive](#) (67/548/EEC). Annex 1 in this Directive sets out the agreed classifications and labeling requirements for approximately 7000 substances, this annex has been transposed through the Health and Safety Commission's Approved Supply List.

CHIP is the law that applies to suppliers of dangerous chemicals. Its purpose is to protect people and the environment from the effects of those chemicals by requiring suppliers to provide information about the dangers and to package them safely. CHIP symbols are useful in identifying some types of HHW. It is worth noting that products in the flammable category with the R10 flammable phrase are in fact dangerous under CHIP, but that the danger category does not happen to require a symbol.

For further information on the CHIP system visit the [HSE](#).

## CHIP hazard symbols

Symbol	Abbreviation	Hazard	Description of hazard
	E	Explosive	Chemicals that may explode.
	O	Oxidising	Chemicals that react exothermically with other chemicals.
	F+	Extremely Flammable	Chemicals that have an extremely low flash point and boiling point, and gases that catch fire in contact with air.
	F	Highly Flammable	Chemicals that may catch fire in contact with air, only need brief contact with an ignition source, have a very low flash point or evolve highly flammable gases in contact with water.
	T+	Very Toxic	Chemicals at very low levels cause damage to health.
	T	Toxic	Chemicals that at low levels cause damage to health.
	Carc Cat 1	category 1 carcinogens	Chemicals that may cause cancer or increase its incidence.
	Carc Cat 2	category 2 carcinogens	
	Carc Cat 3	category 3 carcinogens	
	Muta Cat 1	category 1 mutagens	Chemicals that induce heritable genetic defects or increase their incidents.
	Muta Cat 2	category 2 mutagens	
		Muta Cat 3	
	Repr Cat 1	category 1 reproductive toxins	Chemicals that produce or increase the incidence of non-heritable effects in progeny and/or impairment in reproductive functions or capacity.
	Repr Cat 2	category 2 reproductive toxins	

	Repr Cat 3	category 3 reproductive toxins	
	Xn	Harmful	Chemicals that may cause damage to health.
	C	Corrosive	Chemicals that may destroy living tissue on contact.
	Xi	Irritant	Chemicals that may cause inflammation to the skin or other mucous membranes.
	N	dangerous for the environment	Chemicals that may present an immediate or delayed danger to one or more components to the environment.

There are also a number of related risk and safety phrases which may provide information for the safe storage at HWRCs etc. A full list can be found at the [HSE](#).

## 5.9 Staff competences and training

The Environmental Permitting (England and Wales) Regulations 2007 require that operators are competent to hold an environmental permit. The concept of operator competence is explained in Chapter 8 of the Environmental Permitting core guidance.

An important element of operator competence is the technical competence of staff. Operators of relevant waste activities are required to demonstrate technical competence through an approved industry scheme.

Environment Agency guidance on site attendance for TCPs states that the TCP must be: “in a position to control the day to day activities authorised by the permit and carried on at the permitted site” (Environment Agency 2004). The guidance goes on to state that: “It is therefore essential that technically competent persons attend sites for regular and appropriate periods of time to ensure that the management structure is operated effectively and the control mechanisms are applied” (Environment Agency 2004). For further information see [Technical Competence for Operators of Authorised Waste Facilities](#).

For some sites, the TCP may be on site for the majority of operating hours. However, this is unlikely to be the case for the larger companies that may operate multiple HWRCs as part of a bigger waste management contract. This is acceptable within the terms of the regulations. The Environment Agency states that operators can “provide control of day to day activities through more than one technically competent person so that the requirement for on site presence may be shared”. In addition, the Environment Agency take a risk based approach using the Operator and Pollution Risk Appraisal [OPRA](#) system to determining the attendance requirements for the TCP. However, to ensure good practice, it is essential that site supervisors and operatives, who are on site 100% of the operating hours, are competent.

Therefore, it is recommended that all on-site supervisors and operatives should hold a Level 2 NVQ which requires that they demonstrate competence in areas including health and safety measures, emergency procedures and team working, (e.g. NVQ Waste Management Operations Level 2 or NVQ Recycling Operations). For further details see the [WAMITAB](#) module overview.

However, if they are to be able to accept and to store hazardous waste competently, it is important that operatives receive appropriate in-house training in the procedures for different hazardous materials. Training should cover the following issues:

- rules for handling hazardous materials, operating the store and dealing with customer queries
- recognition of hazardous symbols on waste
- site safety procedures
- emergency procedures
- personal protective gear and why it should be worn
- spillage training.

Recommended good practice procedures for particular hazardous materials can be found in the relevant sub-sections of the section on [acceptance and storage of HHW](#). For example, good practice recommendations for the development of basic training in acceptance and storage of household and garden chemicals can be found here. All site staff should be trained to follow relevant procedures.

To ensure good practice therefore, it is recommended that:

- the technically competent person for all sites holds a Level 4 COTC in Waste Management Operations: Managing Transfer of Hazardous Waste
- all on-site supervisors and operatives hold an appropriate NVQ (e.g. Waste Management Operations Level 2 or Recycling Operations Level 2)
- basic in-house training on the procedures for acceptance and storage of hazardous waste is developed and regularly refreshed.

Since April 2006 a new competence regime has been introduced in England and Wales as part of the Defra and Welsh Assembly Government (WAG) Environmental Permitting Programme. Initially two Schemes have been proposed, although neither have as yet (April 2008) been approved. The two schemes under consideration by Defra and WAG have been developed by CIWM and WAMITAB and by Energy and Utility Skills (EU Skills) and the Environmental Services Association (ESA).

### **CIWM/ WAMITAB scheme**

The scheme developed jointly by the Chartered Institution of Wastes Management (CIWM) and the Waste Management Industry Training and Advisory Board (WAMITAB) offers a range of qualifications that can be used by individuals to demonstrate technical competence. Waste activities are classified as low, medium or high risk, and the level of qualification required varies according to the risk category of the activity. Individuals providing technical competent must be in a position to control the day to day activities carried out at the permitted site. In order to maintain technical competent status individuals must pass a 'continuing competence' assessment every two years.

### **EU Skills and the Environmental Services Association**

The scheme developed by the Environmental Services Association (ESA) and Energy and Utility Skills (EU Skills) is based on the development and maintenance of a

competence management system (CMS). A CMS can apply to individual activities, groups of activities, or extend across all relevant waste activities carried out by a company. The CMS identifies available skills, future training needs, and ensures competent staff are deployed in key posts. A CMS is reviewed and audited annually by an independent accreditation body.

Other schemes may be developed and submitted to Defra for approval. A list of approved schemes will be available on the Defra website.

## 5.10 Communication with householders and businesses

In order to conform to good practice, communication with the public at HWRCs should:

- take all practicable measures to discourage members of the public from disposing of HHW in general waste skips
- clearly inform the public of what materials are accepted and how they will eventually be disposed of
- ensure that the public are aware that they should contact site staff if depositing certain waste materials, e.g. household and garden chemicals.

The main means that can be used to communicate with the public on sites are signage and direct verbal communication by site staff. Secondary means of communications include leaflets and website.

### 5.10.1 Signage

Signs have a range of uses on HWRCs including awareness raising, providing site operational information and feedback to the public. For signs to be effective they need to be clear and well maintained. Other important considerations are:

**Professional:** signs should be produced to a good standard and each container should have its own sign.

**Elevation:** signs should be elevated to a height where they can be clearly seen by all site users. If signs are placed at ground level, they can be easily obscured by vehicles using the site. Elevating signs can minimise confusion to site users, who can then see in advance what recycling and disposal points they need to utilise. There are a number of ways of elevating the signs and the chosen method would be site specific.

**Colour Coding:** signs can be colour coded according to the material they are referring to. This can be a highly visible way of differentiating material collection points before the sign wording is actually read. The Recycle Now colour coding is ideal (see below).

**Visibility:** Signs should be large in size, with lettering also of large size, in order that signs can be easily read from a reasonable distance in all weather conditions.

**Signs displaying the recycling rate:** many HWRCs have boards displaying the recycling rate for the site. This is a good way of involving the public in 'their' HWRC and a strong confirmation that materials are recycled from the site. It is important to keep these up-to-date.

**Public Awareness:** any additional information that can be added to signs is always appreciated. For instance, if a recyclable material is destined for processing, this may be reinforced in the minds of site users by adding this information, in a succinct manner, to the relevant sign, i.e. "Green waste is composted and reused as a soil conditioner".

**Use of symbols or pictures:** provide pictures or symbols relating to the corresponding material for recycling or disposal, to enable members of the public with

English as a second language to access the correct container. Again, Recycle Now iconography is ideal.

**Clearly state the policy on acceptance of commercial waste:** if the policy is non-acceptance then this should be clearly stated at the entrance to the site. It may be advisable to make leaflets listing alternative facilities available (see below). If commercial waste is accepted on site, then procedures for this should be concisely and clearly stated.

Signage should also provide guidance to site users on hazardous waste to:

- provide a clear list of hazardous materials accepted at the site
- emphasise procedures for handling in certain materials or items to site staff (such as chemicals, flammable materials and automotive batteries).

Thus a sensible approach to signage at HWRCs is to use common iconography that links with other waste awareness initiatives. For example, WRAP's Recycle Now campaign has produced guidance on the use of branding for signage at English HWRCs. The devolved administrations have other similar campaigns.

Links to waste awareness campaigns in the UK:



WRAP has developed signage for all WEEE categories to be used on HWRCs, examples can be seen in the photographs from West Sussex below.

### **Common signage colours**

The Health and Safety Regulations 1996 implemented the European directive on safety signs, standardising signs and symbols through the use of statutory colours, shapes and symbols. The core colours used and their meaning are shown below.

Blue

Mandatory Action



Red

Prohibition/danger



Yellow/orange

Hazardous



Green

Safe condition



The use of these colours is illustrated in these examples signs from HWRCs in West Sussex.

### 5.10.2 Verbal communication

Site staff should be trained to operate an intervention policy to try and ensure that HHW is not deposited in the general waste stream. In order for such a policy to be effectively implemented there must either be:

- a member of staff at the entrance to the site (i.e. a meet and greet role)
- sufficient numbers of staff on duty to ensure that there is always someone available for members of the public to contact.

In either scenario, staff should be instructed to approach members of the public who appear to be preparing to deposit HHW items in mixed waste containers. They should offer guidance on appropriate disposal on site, or accept the material where needed (e.g. lead-acid batteries, flammable chemicals) where it would not be appropriate for the public to access storage safes or facilities.

### 5.10.3 Leaflets, press releases and websites

Off-site communication methods include provision of information through leaflets, press releases and websites. Priorities for these communication outlets should be to ensure that the public are aware of “dos” and “don’ts” regarding hazardous materials, such as the following:

- always leave hazardous materials in their original containers
- store in a cool, dry place, out of reach of children or pets
- never pour hazardous liquids down the sink or drain
- never mix chemicals together
- provide full details of which materials are accepted at HWRCs and which materials are not.

Communication can also inform the public what happens to different waste materials when they are deposited at HWRCs. Provision of information on the reprocessing, treatment and disposal of hazardous materials encourages members of the public to dispose of these materials in an appropriate manner.

The London Borough of Barnet’s website provides information on treatment and disposal of all materials collected at the [Summers Lane Recycling site](#).

Communications materials can also help to minimise generation of HHW. Local authorities can advise people on how to avoid purchase and use of hazardous materials in the home by suggesting possible home-made alternatives using ingredients such as vinegar and bicarbonate of soda. See [Lincoln City Council](#) website for ideas.

Finally, as waste and product legislation changes, local authorities need to ensure that the public are aware of product bans such as those recently enforced for creosote and some garden chemicals. An example of West Sussex County Council waste and recycling leaflet for businesses is available [here](#) and a link to their trade waste pages is [here](#).

## 6. Acceptance and storage of household hazardous type waste

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This section presents information on good practice for the acceptance and storage of different categories of HHW at HWRCs. Further information on classification and coding of HHW under the EWC can be found in the NHHWF products list, which can be accessed via this [link](#). This section presents information according to the categories of material that is likely to be separately presented by members of the public at HWRCs and require separate treatment and management.

There are a number of generic considerations which apply to the acceptance, storage and handling of all hazardous wastes at HWRCs:

- hazardous wastes should be stored in an area with impermeable paving and a sealed drainage system
- absorbent materials and other containment equipment appropriate for the type and quantity of petrol, diesel, oil and household and garden chemicals stored should be kept on site
- all staff should receive appropriate training in the correct procedures for handling and storage of hazardous materials
- staff should be supplied with appropriate personal protective equipment (PPE) and trained in its use
- staff, rather than members of the public, should be responsible for placing hazardous wastes in storage containers
- all materials should be stored in appropriate containers
- reporting procedures should be established for accidents and emergencies.

Specific good practice guidelines detailing the implications of these considerations for particular hazardous materials can be accessed by following the links in the table below. For further generic guidance, see the relevant [Environment Agency](#) web pages.

Note that the public should not be encouraged to bring explosive materials or clinical waste to HWRCs, as these are not the most suitable sites for management of these waste types. Nevertheless, these items are sometimes brought to HWRCs. The guidance provides brief details of good practice in these cases.

Hazardous waste category	
<a href="#">Asbestos</a>	<a href="#">Gas bottles</a>

<a href="#">Automotive batteries</a>	<a href="#">Household and garden chemicals</a>
<a href="#">Clinical waste</a>	<a href="#">Household batteries</a>
<a href="#">Explosives</a>	<a href="#">Motoring products</a>
<a href="#">Fire extinguishers</a>	<a href="#">Oils and oil filters</a>
<a href="#">Fluorescent tubes</a>	<a href="#">Paints and related DIY products</a>
<a href="#">Fridges/freezers</a>	<a href="#">WEEE</a>
<b>Other problematic wastes</b>	
<a href="#">Aerosols</a>	<a href="#">Tyres</a>
<a href="#">Vegetable oil</a>	

### 6.1.1 Asbestos

The Environmental Protection Act 1990 Section 51(1) imposes a duty on each waste disposal authority (WDA) to arrange for the disposal of asbestos waste collected in its area by waste collection authorities. In addition, the Act requires that each WDA should provide places where residents may deposit asbestos waste from domestic sources free of charge. In other words, all WDAs must provide facilities for acceptance of asbestos waste at one or more of their HWRCs. This point is emphasised by Defra, when guidance on this matter was re-issued in October 2004. The [guidance](#), and the accompanying [covering letter](#) are available here.

The information presented below relates only to bonded asbestos. It does not cover fibrous (non-bonded) asbestos used for insulation (e.g. pipe lagging) or most loosely bonded asbestos (asbestos cord, asbestos cloth etc). The HSE has provided useful [guidance](#) on the safe handling of asbestos waste at HWRCs.

This guidance must be taken into consideration with the Control of Asbestos Regulations 2006, which came into force on 13 November 2006. These regulations integrate three previous sets of legislation covering the prohibition, control and licensing of asbestos.

Local authorities should follow the guidance and regulations. A brief summary of safe reception of asbestos in the guidance is given below, this relates specifically to the safe reception of asbestos cement waste on site:

- members of the public should be encouraged to make prior arrangements before delivering asbestos to HWRC's or other suitable council sites
- the asbestos should be double bagged, or double wrapped before being delivered to site
- deliveries should be checked by staff who are trained in asbestos recognition and handling
- guidance should be given to householders to ensure they do not break or cut asbestos cement in order to fit it into bags. Instead they should be encouraged to wrap it in plastic sheeting and damp the sheeting to prevent the release of cement fibres
- dedicated skips for asbestos should only store asbestos. Skips should be cleaned out to remove all visible debris once emptied, at the permitted site. Any waste water from this process should be filtered and any residue should be disposed of as asbestos cement waste. Local authorities should ensure their contractor has these procedures in place

- materials to deal with any spillages or unauthorised dumping of asbestos waste, such as bags and sheeting should be available at HWRCs
- the container door should be dampened prior to opening and contents dampened to avoid dust being created when new material is added to the skip
- materials should be placed carefully in the skip to avoid risk of disturbing dust and becoming airborne. Waste should be placed in the skip as gently as possible
- once waste has been added the container should be dampened again and the container closed and locked
- all staff should have an understanding of the guidance and regulations covering asbestos waste
- suitable training should be given to ensure competency on this issue, more information is available from the HSE guide
- appropriate signage should be used to ensure the public notify site staff before unloading
- skips/containers should be lockable and kept locked when not in immediate use
- skips should be appropriately labelled
- asbestos containers/skips should be located remotely from other skips, where reasonably practicable
- adequate and appropriate personal protective equipment (PPE) should be used and available
- hoses with a suitable sprinkler should be used to dampen down containers
- all required details and records should be kept.

This advice does not cover friable asbestos waste, such as lagging. Local authorities should have a policy and emergency plan for dealing with these types of non-bounded asbestos if they are brought to HWRCs.

### **6.1.2 Automotive batteries**

Collection and reprocessing infrastructure in the UK is well established for lead-acid batteries. The current recycling rate of lead-acid batteries is around 90% (Environment Agency). The main routes for collection of automotive batteries are through garages and HWRCs.

The following guidance should be followed for storing automotive batteries at HWRCs:

- Batteries should be stored in covered containers, or in a covered area, in order to avoid ingress of water.
- Storage containers should be tested and approved to United Nations (UN) standards to ensure that there is no leakage from containers should acid be released from individual batteries (appropriate containers will generally be provided by collection contractors.)
- The UN standards for containers refer to international agreements for the carriage of dangerous goods that require packaging to be of a design certified by a national competent authority. This involves testing the packaging to ensure its suitability for the carriage of certain dangerous goods. Such packaging is often referred to as "type-approved" or "UN certified" and is marked in particular ways, prefixed by the UN logo. For further information visit [HSE](#).

Any site or business storing or handling automotive batteries should carry out a suitable and sufficient risk assessment to reduce the foreseeable risks. Any risk assessment should include (but not be restricted to) dealing with acid spillages, and preventing skin contact and ingestion of acids and lead. Lead should not be subject to heat capable of generating lead fume or abrasion causing a dust unless suitable control measures are in place to prevent inhalation of the dust and fume evolved. HSE publishes guidance on working with lead.

It is advisable that automotive batteries are placed in designated containers by members of site staff (wearing appropriate personal protective equipment), rather than by members of the public.

### 6.1.3 Clinical waste

Clinical waste is defined in regulation 1(2) of the Controlled Waste Regulations 1992 (SI 192/588) under category (a) as:

*'Any waste which consists wholly or partly of human or animal tissues, blood, other body fluids, excretions, drugs or other pharmaceutical products, swabs or dressings, or syringes, needles or other sharp instruments, being waste which unless rendered safe may prove hazardous to any person coming into contact with it'.*

Most clinical wastes should be dealt with as hazardous/special waste. However, only medicines which are cytotoxic (harmful to cell structure and function and which could ultimately cause cell death) and cytostatic (inhibit or suppress cell growth or multiplication) are classed as hazardous/special waste.

Members of the public should not be encouraged to bring clinical waste to HWRCs as these facilities are not appropriate for management of this waste. If members of the public contact local authorities with requests as to how to dispose of clinical waste, they should be advised to contact their local primary care trust or doctor's surgery for information. Waste pharmaceutical products should be taken to a local pharmacy.

Clearly, it is possible that clinical waste materials may be brought to HWRCs by members of the public and therefore it is advisable that site operators take some precautions and invest in equipment to deal with waste needles.

In order to protect the health and safety of HWRC staff and users of sites:

- all sites should be equipped with sharps bins or boxes and the protective equipment necessary for handling waste needles safely in the event that they are found at an HWRC
- staff should be trained in recognition and appropriate management of waste needles.

### 6.1.4 Explosives

Members of the public should be discouraged from bringing explosive materials to HWRCs. If members of the public contact local authorities with requests as to how to dispose of explosive materials they should be advised to contact their local police station.

However, there may be occasions when members of the public arrive at HWRCs with explosive materials without having contacted the local authority first. To deal with this eventuality a documented emergency procedure should be developed. Further information regarding segregation of HH type waste is available [here](#).

In brief, one of two procedures should apply in such cases, depending on the nature of the material:

1. If the explosive materials consist of ordinance (e.g. hand grenades or similar devices) they may present immediate and serious danger to site staff and members of the public. In this case, sites should be evacuated and closed according to a documented emergency procedure. The police should be contacted as soon as the material arrives at the site.
2. Other explosive materials (such as marine flares or fireworks), may present a less immediate injury risk. In these cases, they should be temporarily stored in a dedicated explosives box to await collection by police officers. This box should be:
  - located in an area of the site not accessible to the public, and well away from flammable materials containers (at least five metres)
  - kept locked at all times.

HSE guidance on explosives (including ammonium nitrate fertilizers which may turn up in the waste stream) is given on their [explosives website](#).

### **6.1.5 Fire extinguishers**

Fire extinguishers are usually under pressure and should be treated in the same manner as compressed gas cylinders. Fire extinguishers should not be disposed of in general waste but should be taken to a HWRC and stored in the open air in a locked, caged area with other (non-LPG) compressed gas cylinders and cartridges. This area should be at least three metres distance from the other hazardous waste containers.

Because of the diverse range of fire extinguishers available, local authorities and their contractors should consult supplier information on fire extinguisher cylinders and contact suppliers for treatment and disposal guidance. The original manufacturer of an end-of-life fire extinguisher may be able to offer advice and/or a collection service.

Halon is a potential ozone depleting substance. The use of halon fire extinguishers has been banned since the end of December 2003, under the European Ozone Depleting Substances Regulations. Fire extinguishers manufactured since then do not contain halon. The use of fire extinguishers and fire protection systems using halons has been mostly phased out. There are a few exemptions for military uses. Any halon fire extinguishers will need to be disposed of as hazardous/special waste. Guidance on alternatives to halon is available on the BERR [website](#).

Halon-containing fire extinguishers must have the halon recovered and destroyed by authorised processes. Halon fire extinguishers are usually green and marked “halon” or “BCF” and can be stored within the same secure area as other fire extinguishers.

### **6.1.6 Gas bottles**

Liquid Petroleum Gas (LPG) cylinders and other compressed gas cylinders may contain significant residual amounts of their original content. Therefore, these containers should be stored in locked cages in the open air.

HSE guidance on small-scale use of LPG in cylinders states that operators of sites storing such containers should:

- keep all cylinders in a safe, well-ventilated place, preferably in the open air, and away from occupied buildings, boundaries and sources of ignition and heat
- make sure the cylinders are properly secured and are kept upright
- ensure that cylinders are kept in areas that are well away from moving vehicles.

To view the guidance on the HSE website follow this [link](#).

Guidance produced by the [Liquid Petroleum Gas Association \(2004\)](#) specifies that LPG cylinders should be separated from other compressed gas cylinders by a distance of three metres. It is also advisable that this guideline should be adhered to regarding the distance between gas cages and other flammable materials containers, and containers for materials that are easily ignitable (e.g. paper and textiles).

In most cases, empty gas bottles are likely to be owned by the manufacturer or supplier of the product that they contain. They are regarded as being hired by the user and may not be classified as waste. Local authorities or their contractors should contact manufacturers or suppliers of gas bottles to establish management and collection arrangements for branded cylinders that are deposited at HWRCs. Unidentifiable gas cylinders will need appropriate treatment and disposal by specialist companies.

WISH has published further guidance on dealing with [orphaned gas cylinders](#).

### **6.1.7 Household and garden chemicals**

This category includes household products such as bleaches, disinfectants and some cleaning products, as well as garden chemicals including pesticides, weedkillers, fertilisers and lawn treatments. For further details of the components of concern in these products, and the hazards that they present, see the NHHWF [products list](#).

There are a number of potential good practice options for storage of household and garden chemicals. The option chosen will depend on the quantities of chemicals being accepted at an HWRC, and whether the storage area for chemicals being delivered by the public is also used for chemicals from other sources, e.g. fly-tipping arisings, chemicals collected through “toxic taxi” systems, chemicals collected from small SMEs. Details of options for good practice storage arrangements are provided below.

Regardless of the storage system, a number of common guidelines should apply.

All communications materials or procedures should emphasise safe handling of household and garden chemicals. For example:

- members of the public should be directed to hand items to members of site staff if they have household or garden chemicals that they wish to deposit at a HWRC
- the public should be asked to leave household and garden chemicals in their original container.

When items have been handed to members of staff at a HWRC (or when they have been found on site), staff should be trained to follow the procedure below for household or garden chemicals. This procedure also relates to [motoring products](#) such as antifreeze, brake fluid, diesel, petrol, rust remover and transmission fluid.

- HWRC staff should check to see if containers of household or garden chemicals, or motoring products, carry a [CHIP](#) symbol on the label.
- As a minimum requirement in terms of segregation of different materials, explosive items, flammable items and other hazardous materials should be stored in separate locked containers.
- If a product container carries a CHIP symbol it should either be placed in the chemicals safe, the flammables safe or in the explosives box:
  - materials carrying the Explosive symbol should be placed for temporary storage in the explosives box
  - materials carrying the symbols for Highly Flammable or Extremely Flammable should be placed in the flammables safe.

Materials carrying any other symbol should be placed in the chemicals safe, see the [CHIP section](#) for details:

- Chemicals should be left in their original container and all containers should be placed upright in the appropriate safe.
- If containers are fragile or leaking they should be placed in a suitable sealed screw-top plastic container. (Suitable containers should be available from collection contractors.) Only one HHW item should be placed in each of these containers to avoid mixing of chemicals.
- If chemicals are brought to a HWRC in unmarked containers – i.e. any container other than that provided by the manufacturers – site supervisors should ask members of the public what the substance in the container is, and anything they know about its origin. These details should be recorded to assist the collection contractors with the identification of chemicals. Site supervisors should then place the material in a sealed screw-top plastic container (see above) or other UN approved container and put this in the chemicals or flammable safe.
- Details of all substances stored in the chemicals or flammables safes, should be recorded in a log book to assist collection contractors with identification of chemicals. Details recorded should include the name of chemical (if known), date deposited, and name and contact details of the member of the public who deposited the waste.
- Unless staff have a good reason to believe that unidentified substances are not hazardous they should not be placed in the general waste. Collection contractors' chemists will be able to identify any materials that are non-hazardous and suitable for disposal with general waste.
- Arrangements should be made with relevant contractors to ensure that there is always adequate storage space for chemicals kept on a HWRC. These arrangements may take the form of on-demand collections made by the contractor when space in a chemicals safe or flammables safe is running out. Alternatively, collections should be made at regular intervals. It is recommended that collections are made on a monthly basis as a minimum.

HWRC operators may wish to consider further segregation in larger stores containing greater quantities of waste chemicals. Relevant guidance is available in Health and Safety Executive 2003, Chemical Warehousing: The storage of packaged dangerous substances HSG71 HSE Books. However, the guidance provided in HSG71 may not always be reasonably practicable in the case of HWRCs, given the small inventories of waste chemicals stored at most sites; the guidance is intended for sites housing large quantities of hazardous substances. The key issue is that each site should conduct its own risk assessment based upon prevailing and foreseeable circumstances and risks, and to ensure that the quantity of waste chemicals stored is kept to a minimum.

HSE has published guidelines on the [storage](#) and use of [pesticides](#) which may be of use when these appear in the waste stream.

#### **6.1.7.1 Storage and segregation options**

##### **Option 1: Fully contained storage compound**

In this option hazardous waste is segregated into various containers within a self-contained storage area. This option is not currently employed at any HWRC in the UK.

This option may be suitable for sites where there is a large area available and the total quantities of hazardous chemicals to be stored are high (e.g. when used to store fly-tipped chemicals picked up by the council and/or chemical waste from commercial

collections, as well as waste deposited at the site by members of the public). It would be advisable for such a site to be situated in a location with good transport links and no neighbouring residential properties. Given the permanent nature of the structures envisaged, this option would require planning permission.

Waste should be segregated into categories following Health and Safety Executive guidance (Health and Safety Executive 2003, Chemical Warehousing: The storage of packaged dangerous substances HSG71 HSE Books). These categories are:

- flammable liquids and solids, including fuels, paints, thinners and other solvents.
- compressed gases: Storage area to be further separated into flammable gases (most likely propane/butane cylinders and aerosols) and compressed gases (such as carbon dioxide, nitrogen and fire extinguishers). Consideration may need to be given to “exotic” cylinders containing corrosive or oxidising gases.
- toxic materials: Garden chemicals and pesticides that do not present any hazard other than being toxic, harmful or ecotoxic.
- miscellaneous: remaining hazardous chemicals acceptable on the site, to be further split into different areas for acids, oxidisers, bleaches, etc.

In this model, it is assumed that all containers are of the same size. However, container size could be varied to account for different expected volumes of waste arisings.

Containers should be weatherproof, lockable and have an internal collection tray (bund) at least big enough to hold 110% of the volume of the largest container. The whole storage area would also be fully banded as an additional protection in the event of any spillages from the containers or overflow of internal bunds.

Separation distances between containers would be established by reference to appropriate HSE and other guidance (e.g. flammable materials container to be separated from other materials by three metres).

Fencing would surround the area with lockable double gates at the front. This would prevent unauthorised access outside site opening hours and would give protection from vehicle movements.

### **Option 2: Adapted shipping container**

This option is a steel shipping container (6-12m long x 3m wide x 2.5m high) that is adapted for the purpose.

This option would be suitable for sites dealing with relatively large volumes of chemicals or where the expense or area of land required by Option 1 would be problematic. Although the container would provide protection from vehicle impacts, it would be unlikely to require planning permission.

The adaptations would include:

- a lockable door
- gridded floor over integral bund to hold at least 27.5 litres
- safe lighting
- steel firewalls fitted between each hazard category of waste
- suitable shelving or racking for the storage of materials
- suitable ventilation to prevent build up of vapour.

### **Option 3: Lockable HHW storage container(s)**

In this option chemicals are stored in two separate storage containers, one containing flammable materials and the other containing all other chemicals.

This system is suitable for sites with relatively restricted availability of space that are only used for temporary storage of chemicals that have been deposited at the HWRC by members of the public.

Both the flammables and general chemicals containers should be:

- shelved, in order to provide adequate space for upright storage of containers
- kept locked at all times
- internally banded
- placed in an area well away from vehicle movements
- marked with appropriate CHIP symbol
- provided with absorbent materials in case of spillages
- provided with appropriate screw-top UN standard containers for storage of materials that are deposited at the site in fragile or leaky containers.

An alternative option is that used by Hampshire County Council on HWRCs in the county that are permitted for acceptance of hazardous wastes. All chemicals are stored in a single container that has an internal wall and can be accessed from doors on both sides – flammable materials are stored in one side of the container and other chemicals are stored in the other side. The containers used on the Hampshire sites were manufactured by a local company according to the county council's specification.

### **6.1.8 Household batteries**

Local authorities introducing collections of household batteries in advance of UK batteries legislation, may find themselves in a favourable position in terms of:

- contributing to recycling targets
- availability of reprocessing infrastructure
- ensuring that members of the public are aware of battery collection facilities.

A number of battery collection points have been introduced at HWRCs, civic centres and have been integrated as part of kerbside collections. The UK's first dedicated battery recycling plant opened in March 2005 by [G&P Batteries](#). It is likely the Batteries Directive will stimulate further investment in UK infrastructure, and reduce the need to export batteries for reprocessing.

### **6.1.9 Motoring products**

Since there are specific segregation and management systems at HWRCs for some motoring products (e.g. automotive batteries, oil and oil filters, and tyres) guidance is provided on these individual categories.

Other hazardous materials in the motoring products category include brake fluid, petrol, diesel, transmission fluid, antifreeze and rust remover. Many of these motoring products are flammable and will need to be stored in a designated flammable safe on HWRCs.

Members of the public should be directed by a member of site staff when depositing motoring products at a HWRC. Flammable motoring products should be stored upright, and in their original containers, in a shelved flammable materials container. For further

guidance, including storage options, see the section on [household and garden chemicals](#).

### 6.1.10 Oils and oil filters

Around 1 million tonnes of oily wastes are collected each year<sup>1</sup> representing 20% of all hazardous waste arisings. After processing to remove water and solids, 350,000 tonnes of waste oil remains<sup>2</sup>. Oil is the most commonly reported cause of waste pollution, with over 5,000 incidents recorded annually. Even a small quantity can cause a lot of damage to the environment and threaten human health.

It is estimated that domestic waste oil arisings (primarily used car engine oil) account for 10% of total waste oil collections. Around 60% of HWRCs currently provide facilities for recovery of waste oil. The [Oil Care Campaign](#) gives advice on storing, using and disposing of oil safely to reduce pollution.

Waste oil storage is regulated under environmental permitting regulations, and in most cases is exempt from the Oil Storage Regulations. However, if containers with a capacity of more than 200 litres are installed on an HWRC, the Control of Pollution (Oil Storage) (England) Regulations 2001 may apply. Local authorities and their contractors should consult local Environment Agency officials to determine if this is the case, and should consult Environment Agency [guidance](#) as to design of storage facilities.

If the Oil Storage Regulations do not apply, the storage of oil will be regulated in permit conditions through the environmental permitting system.

The following good practice guidance should be followed in designing storage facilities:

- locate the store where it is unlikely to be damaged by moving vehicles, using crash barriers where necessary
- do not store oil within 10 metres of a watercourse or 50 metres of a well or borehole
- make sure all oil containers are on an impervious base and surrounded with an oil-tight bund wall
- make sure that if the container fails, all of the oil will be held in the bund. The secondary containment system must provide storage of at least 110% of the tanks maximum capacity. If more than one container is stored, the system must be capable of storing 110% of the biggest container's capacity or 25% of the total tank capacity within the bund, whichever is the greater.
- consider whether it is practicable to roof the bunded area to prevent the accumulation of rainwater
- do not put any drains in the bund
- remove any water from the bund by bailing or pumping via a manually controlled system
- the water may be contaminated and should be disposed of as hazardous waste unless you are absolutely sure that it is not hazardous. If it is not hazardous waste, you must still dispose of it in accordance with Duty of Care obligations.

Further [guidance](#), including advice on constructed bunded oil tanks is available on the Environment Agency website.

Waste oil filters can be recycled and a number of companies operate collection and recycling services, although most of these services are designed for commercial garages. Waste oil filters can be collected on HWRCs in simple containers, such as a

wheeled bin; however, oil filters contain residual oil and storage containers should therefore be sited in a bunded area.

The [European Commission](#) is reviewing the waste directives and has proposed the repeal and integration of the Waste Oils Directive and the Hazardous Waste Directive into the revised Waste Framework Directive. Consideration is being given as part of the review to repeal of the requirement to give priority to the regeneration of waste oil.

### 6.1.11 Paints and related products

Paint and varnish formulations have changed significantly over the past few years with elimination/reduction in the heavy metals used and a move towards the use of water-based paints. Therefore the potential hazards will depend on the age of the paint or varnish. The main hazards arising from older paint and varnish fall into two main categories: namely the presence of

- any of a range of flammable and/or harmful/toxic and carcinogenic organic solvents, and
- potentially hazardous metals in the pigments (including antimony, cadmium, chromium, lead, nickel, strontium, zinc).

If any of these are at or present above threshold concentration the Hazards H3A (first indent); H3B to H8, H10; H11 and H14 may apply. Many newer paints and varnishes may not possess these hazards because of changes in formulation and should be assessed accordingly based on their actual composition.

Water-based emulsion paints are non-hazardous for both supply and waste, however, typical solvent-based decorative paints (e.g. white spirit based glosses) are hazardous because they have a flash point in the range 21 to 55C (which means that they are dangerous for [CHIP](#), with risk phrase R10 "Flammable", but no symbol) and hazardous as a waste (due to the H3B Hazard Property, which has a flash point range of 21 to 55C). For further detail regarding the hazard categories of decorative paint, see the [household hazardous type waste product list](#).

All paints have the potential to create mess or nuisance, therefore according to the [NHHWF definition](#) all paints are considered to be hazardous. However, it is good practice to manage all paints as if they were hazardous, and therefore use or reuse the whole product. One means of avoiding mess and nuisance, and reducing the costs of managing paint waste, is to establish reuse schemes.

The main established organisation for reuse of paints is the Community RePaint scheme, which facilitates reuse for water-based paints (eg emulsion, eggshell) and gloss paint. Community RePaint schemes cannot deal with specialised, commercial or industrial paints and paint-related materials (such as thinners, cleaners and paint strippers). However, the majority of paints deposited at HWRCs should not fall into the latter category. The national [Community RePaint](#) scheme can provide guidance on the types of paints that can be accepted and their identification.

Paint identified as being flammable or hazardous are not reusable within the Community RePaint scheme. These paints should be stored in an appropriate, locked flammables or chemicals safe to await collection by a disposal contractor.

The industry is considering voluntary producer responsibility and further details are available [here](#).

### 6.1.12 Waste Electrical and Electronic Equipment (WEEE)

WEEE covers a wide variety of potentially hazardous materials and as for other HHW, local authorities have an obligation to provide for the separate collection of WEEE.

However, the WEEE Directive and WEEE regulations provide for [producer and distributor responsibility](#). Distributors are funding a network of Designated Collection Facilities (DCF), most of which are at HWRCs.

Producers have responsibility for financing the collection, treatment and reuse/recycling of material deposited at DCFs, therefore, all WEEE collected by local authorities, including the hazardous element, can be passed to producer compliance schemes for transport, treatment and recycling at cost to the producer. Local Authorities have 2 options:

- Apply for their HWRCs and WTS to become DCFs, which means producers will pick up all costs associated with the collection of WEEE from DCFs and counts towards LA recycling targets.
- Stay outside producer responsibility WEEE system and fund the treatment and recovery of any separately collected WEEE at their sites and WTS.

Requirements for DCFs are set out in the WEEE regulations. These give legal force to a code of practice on the arrangements between local authorities and producer compliance schemes. The [Code of Practice](#) has been developed between the local authorities, producer compliance schemes and waste management companies. If local authorities want to operate in this manner, they must register their HWRCs and those sites to which bulky waste and trade waste is taken, as DCFs. Any site that becomes a DCF and is open to the public must actively maximise the separate collection of WEEE.

Household WEEE should be separated into the following five categories available at DCFs:

- A) Large household appliances other than cooling appliances
- B) Cooling appliances containing refrigerants\*
- C) Display equipment containing Cathode Ray Tubes (CRTs)\*
- D) Gas discharge lamps\*
- E) All other WEEE

\* The Hazardous Waste Regulations also apply to these categories of WEEE.

The above five categories are the norm although DCFs may collect fewer than five categories if site constraints make it impossible and there are other facilities locally that householders can take their WEEE too. The [Valpak](#) website lists all councils and organisations that have a registered site and the categories of WEEE they accept. It should be noted that Category C also includes LCD and plasma screens.

Material from sites that are not registered within the WEEE system will remain subject to the existing hazardous waste legislation and the associated costs will remain with the local authority.

#### **6.1.12.1 Fluorescent lighting tubes (gas discharge lamps)**

With the move towards energy efficiency, traditional light bulbs are to be phased out under a voluntary initiative. Under this initiative the UK plans to phase these products out by 2011. This will mean the majority of householders and businesses will switch to fluorescent tubes and energy saving bulbs. Energy saving compact fluorescent light bulbs (CFLs) can help reduce carbon dioxide emissions and contribute to tackling climate change because they use only a fifth to a quarter of the electricity of ordinary bulbs to generate the same amount of light.

CFLs are cost effective. Advice from the Energy Saving Trust suggests that because it will last up to 10 times longer than a traditional bulb, just one energy saving bulb could save up to £7 a year and could save around £60 before it needs replacing.

Fluorescent lighting tubes and fluorescent bulbs (energy-efficient light bulbs) contain mercury and should be stored in rigid containers to ensure that they are not broken. These containers can be supplied by specialist reprocessing companies that are also able to arrange for collection. Some containers may be suitable for external use, and should be lockable. Fluorescent tubes and gas discharge lamps can be recycled in the UK, visit [Recolight](#) for further details.

In order to avoid breakages, it is advisable that fluorescent tubes and bulbs are placed in storage containers at HWRCs by site staff wearing appropriate PPE. Members of the public should therefore be advised to contact site staff if wishing to deposit fluorescent tubes.

Gas discharge lamps will be subject to producer responsibility requirements under the WEEE Regulations. Free collections will be made by producers from HWRCs that are registered by their operators as DCF.

Local authorities should be aware that there may be an increase in disposal of energy saving (CFL) light bulbs at HWRCs. Defra has now published a [factsheet](#) providing advice on health and safety and disposal of CFLs. Some retailers will take them back in store, although most retailers have funded Designated Collection Facilities, primarily at local authority civic amenity sites.

#### **6.1.12.2 Cooling appliances containing refrigerants (fridges and freezers)**

Fridges and freezers have been subject to the Ozone Depleting Substances (ODS) Regulations (2037/2000/EC) since January 2002. All waste refrigeration appliances containing ODS (e.g. CFCs) must be sent to specialist reprocessors.

Most refrigerators reaching the waste stream in the UK are between 10 and 15 years old, and are therefore likely to contain ODS. Units manufactured after 1994 are unlikely to contain CFCs.

If a DCF can accommodate fridges and freezers, good practice for WEEE storage suggests a site requires:

- impermeable surfaces (with provision for spillage collection facilities and, where appropriate, decanters and cleanser-degreasers)
- weather-proofing for appropriate areas
- appropriate containers and suitable signage to guide users.

Many fridges and freezers brought to HWRCs by members of the public may be potentially reusable. Many areas will have social enterprises that can provide a refurbishment service, and they will also be able to distribute these goods to people in need. However, potential for reuse is likely to be drastically reduced if equipment is allowed to stand outside in poor weather conditions. Therefore, if reuse of fridges and freezers from an HWRC is to be arranged, provision of a covered area would be a priority.

HWRC operators who register their sites as DCFs under the regulations will need to consult with producers of electrical and electronic equipment, or the organisations carrying out collections from DCFs on their behalf, as to the possibility of reuse.

Defra has produced guidance on the [storage](#) and [disposal](#) of fridge freezers.

Polystyrene can be found in fridges/freezers etc as an insulator (and is a commonly used packaging material). The pentane within the polystyrene is flammable. HSE has published [guidance](#) on how to address the hazards.

#### **6.1.12.3 Display equipment containing cathode ray tubes (TVs and monitors).**

One of the five categories of WEEE to separate at DCFs is display equipment containing cathode ray tubes (CRT). Display equipment and CRTs in particular, contain heavy metals. The recent trend for larger and wide-screen format televisions and monitors results in larger cathode ray tubes (CRT).

These materials do not pose a risk to the users of equipment, but they do pose an environmental risk when disposed of and must be managed appropriately.

The popularity of non-CRT flat-screen TVs that use LCD (liquid crystal display) or plasma screens has not yet been observed in the waste stream. However as CRT televisions and monitors are replaced by LCD and plasma screens there may be an increase of CRTs in the waste stream.

#### **6.1.12.4 Smoke alarms**

It is estimated that approximately 2.2 million smoke detectors enter the waste stream every year and at present most smoke detectors are disposed of within general household waste where they are either incinerated or landfilled. There are two types of smoke alarms in general use:

- photoelectric: present no environmental risk.
- ionisation chamber detectors: present little risk in normal use. If damaged by fire, americium, a radioactive element, would be released into the atmosphere resulting in low level radiation.

The annual dose to a user of an ionising chamber detectors is approximately 0.1 [microsievert](#) in comparison to an average annual dose to the UK population of 2600 microsieveverts<sup>3</sup>. The potential dose estimated in the event of mechanical damage to the detector is 80 microsieveverts per year, which is very low. For further information on radiation risks visit the [Health Protection Agency](#).

Small domestic detectors can be disposed of in general waste, however only one per 0.1m<sup>3</sup> domestic refuse (i.e. one per refuse sack or bin) is allowed according to the [Radioactive Substances \(Smoke Detectors\) Exemption \(Amendment\) Order 1991](#).

### **6.1.13 Other problematic wastes**

#### **6.1.13.1 Aerosols**

Empty post-consumer aerosols are not in themselves hazardous. However, they may contain significant residual amounts of their original content and aerosols are often used to contain hazardous and/or flammable substances (e.g. automotive products, insecticides).

It should be remembered that aerosols often contain a highly flammable gas used as a propellant. Even when notionally “empty”, the aerosol still contains an amount of highly flammable propellant gas. Aerosols should not be punctured or broken in any way unless a full [risk assessment](#) has been carried out which addresses the flammable and any possible toxic risks. It is likely that quantities of aerosols that may be evacuated or baled may need to be done under a suitable extraction ventilation system. Expert advice should be sought.

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<sup>3</sup> The Sievert is the SI unit of dose equivalent. It reflects the biological effects of radiation as opposed to the physical aspects, which are characterised by the absorbed dose, measured in grays.

For local authorities collecting aerosols in can banks or kerbside schemes, the following basic precautions are suggested:

- leave aerosols mixed in with other metal waste – do not segregate and concentrate them
- ask householders to remove loose plastic parts such as over-caps/lids
- educate householders to put only empty used aerosols in can banks or kerbside collections. Householders must not pierce or squash the aerosols
- ensure that all the usual health and safety precautions for a well run HWRC, especially ruling out sources of ignition
- although flammable gases can be released within the baler or in the finished bales, tests show that any flammable atmosphere generated dissipates very quickly in the surrounding air.

The [British Aerosol Manufacturers' Association](#) suggests that over 75% of local authorities now collect aerosols in their can banks or in their kerbside scheme. Householders should check with the local authority about aerosol collection in the area. If aerosols containing hazardous substances are presented at HWRCs which are full (or have significant amounts of residual content), they should be stored in the same way as other hazardous materials. Local authorities should consult specialist contractors for collections of aerosols containing hazardous household and garden chemicals.

#### **6.1.13.2 Radioactive wastes**

Radioactive sources can be used in a variety of equipment in many commercial settings, for example, fill level detectors, static eliminators, radium luminised dials, old trimphones and [smoke detectors](#). If a radioactive source is used in your business you must hold a Certificate of Registration from the Environment Agency, SEPA or NIEHS unless an exemption order applies. If you dispose of or accumulate radioactive waste, you need a Certificate of Authorisation. Exemptions apply to:

- registrations for some low activity radioactive sources
- authorisations for accumulating and disposing of some radioactive wastes.

[Defra](#) and the [Environment Agency](#) provide further guidance on exemption orders.

Any radioactive materials and wastes must be stored securely on the premises and in accordance with the conditions of the certificate of registration or authorisation.

Businesses should minimise the creation of radioactive wastes and dispose of any radioactive wastes safely. In most cases a business will have to pay to dispose of radioactive waste and disposal costs can be very high ([smoke detectors](#) are an exception). Businesses should ensure they can afford disposal costs before applying to keep or use radioactive materials. Further information is available on [NetRegs](#).

Radioactive sources if wrongly disposed of may appear in the scrap metal or residual waste stream. Even small sources can trigger a detector or may display a hazard symbol. If a source appears at a site, the site manager should notify the relevant regulator, quarantine the area and wait for expert advice.

#### **6.1.13.3 Tyres**

Tyres are not classified as hazardous waste. However, under the Landfill Regulations (SI 2002/1559), whole tyres have been banned from landfill since July 2003 and shredded tyres have been banned from landfill from July 2006.

Therefore, tyres cannot be disposed of with the mixed general waste stream and should be stored separately and collected for retreading, recycling or responsible disposal.

The Used Tyre Working Group is an industry and Government-sponsored body, with representation from the four tyre trade associations, and officials from the Environment Agency and the Department for Business, Enterprise and Regulatory Reform. The group has a website that can be accessed [here](#). The site provides:

- information on the various methods available to dispose of and recycle used tyres in the UK
- a list of companies registered to carry out the tyre disposal process that can be searched by geographical area.

Further information and responses to frequently asked questions regarding the disposal of tyres is also provided by [Defra](#).

#### **6.1.13.4 Vegetable oil**

The Environment Agency advises the public that, in the absence of recycling facilities, the best environmental option is to return oil to its original container and dispose of it at the nearest HWRC.

It is possible for local authorities to collect and arrange for the reprocessing of vegetable oil. Reprocessed vegetable oil can be used as biodiesel, which may contribute to reducing the damaging effects of transport on the environment. The availability of collections is likely to be dependent on the existence of a local reprocessing company, as there are no national contractors involved in this field.

It is the responsibility of the producers of used cooking oil, e.g. caterers, to ensure they follow the Duty of Care standards. Waste cooking oil producers must:

- be collected by a registered, permitted waste carrier
- sign and receive a 'Waste Transfer Note'
- be collected in lidded containers.

ACORN (Affiliated Cooking Oil Reclaimers Nationwide) is an organization which was formed to provide an efficient waste oil collection service throughout the country. ACORN has 15 independent regional collection sites and over 100 waste oil collection vehicles. For further details visit [ACORN](#).

If containers with a capacity of more than 200 litres are installed on an HWRC the Control of Pollution (Oil Storage) (England) Regulations 2001 apply to vegetable oil. More detailed guidance is available in a [Defra guidance note](#).

## **7. Key issues for businesses**

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This section deals with the key issues of hazardous wastes and SMEs. It does not cover specific processes or industry sectors but provides an overview of good practice.

Hazardous waste is defined with the European Waste Catalogue (EWC). This lists all hazardous and non-hazardous waste, each waste type is categorized by a six digit code. Wastes categorized as hazardous are marked with an asterisk. Some waste types are classed as hazardous waste outright and are known as absolute entries; in the [Environment Agency consolidated guidance](#) they are highlighted in red and marked with an 'A'. Examples of hazardous waste include lead acid batteries and fluorescent tubes and some IT equipment. There are also mirror entries in the EWC

which require separate assessment to determine if they are hazardous or not. This will depend on the amount of dangerous substances above threshold concentrations. Mirror entries are highlighted in blue and marked with an 'M'. Non-hazardous wastes are shown in black without any markings. Note that non-hazardous waste is now subject to pre-treatment requirements under the [Landfill Regulations](#).

There are specialist provisions for explosives, mineral wastes from mining and quarrying and radioactive wastes.

Useful guidance on interpretation and classification can be found on the [Environment Agency](#) website.

As a business you should:

- segregate hazardous waste from non hazardous waste
- ensure hazardous wastes are dealt with by a suitably qualified hazardous waste contractor.

If you produce hazardous waste, in England and Wales, you must register your premises with the Environment Agency before you allow waste to leave your premise. Some premises may be exempt if they meet the following conditions:

- you produce less than 200kg of hazardous waste in any 12-month period
- the premises is an office, a shop, used for the collection of waste electrical and electronic equipment, or a dental, veterinary or medical practice
- they use a registered carrier (or one exempt from being registered) to remove hazardous waste from where it was produced.

If premises is not exempt they must still register with the Environment Agency even if less than 200 kgs are produced in a twelve month period.

If the hazardous waste is produced on a farm registration must occur if over 500kgs are produced.

Regardless of whether a premises is exempt or not a consignment note must accompany any movements of hazardous waste.

In Scotland the regulations are slightly different, waste is still termed Special Waste, it is still defined in the same way as hazardous waste using the EWC. There are special provisions for used explosives, mineral wastes from mining and quarrying and radioactive wastes. In Scotland, the regulator Scottish Environment Protection Agency (SEPA) tracks the movement of Special Waste using a consignment note system. A waste producer must pre-notify SEPA at the office local to the destination of the waste, at least three working days and not more than one month, before Special Waste is moved. This process is also in place for any hazardous waste imported from England or Wales. Any consignment note in Scotland must include:

- details of the premises including address and postcode
- a unique code
- details of everyone involved with the movement of the waste
- an accurate description of the waste.

A guide for consigning special waste in Scotland can be found on the [SEPA](#) website.

## 7.1 Duty of Care

All businesses have a 'Duty of Care' to ensure that any waste produced is handled safely and within the law. It applies to anyone who produces, imports, transports,

stores, treats or disposes of controlled waste. Commercial, industrial and household wastes (including hazardous wastes) are classified as 'controlled waste'. The duty of care also applies to anyone that acts as a waste broker. The duty of care has no time limit and extends until the waste has either been finally disposed of or fully recovered.

As an end user, a business must check that waste is passed on to someone that authorised to take it. If a business does not check the contractor is authorised and the waste is illegally disposed of, the business could be held responsible. Organisations that waste may be passed on to include:

- waste contractors
- scrap metal merchants
- recycling companies
- your local council
- skip hire companies.

## **7.2 Storing and managing hazardous waste at your site**

If you store or process hazardous waste a business may be required to an environmental permit. You may be exempt if:

- hazardous waste is not stored for more than 12 months
- the company store no more than 80 cubic metres of hazardous waste in secure containers
- the company store no more than 50 cubic metres of hazardous waste in a secure place
- the company store no more than 23,000 litres of liquid hazardous waste at any one time.

UK guidance on the storage of hazardous waste can be found on the [NetRegs](#) website.

Businesses still need to contact the environmental regulator to apply for an exemption.

If you are storing quantities of hazardous waste there should be specific procedures in place to deal with spills effectively, this should also include staff training and consider issues such as:

- what to do in the event of a spill
- the type of personnel protective equipment required
- how to dispose of contaminated clean-up materials
- different hazardous wastes should not be mixed
- hazardous and non-hazardous waste should not be mixed
- provide written instructions for staff and contractors for each type of hazardous waste
- maintain an inventory of all hazardous waste types stored on site and locations, this can help the emergency services if any incident arises.

## **7.3 Transfer and transportation**

When passing waste onto a contractor for recovery, recycling or disposal, a company will need to ensure that:

- waste is transported by a registered or exempt waste carrier
- waste is accompanied by a consignment note
- waste is transferred to a facility that holds suitable permits
- it stores and keeps consignment notes for future reference.

## 7.4 Using electronic consignment notes

Consignment notes can be provided in electronic format in England. Electronic consignment notes do not have to precisely match the format shown in the regulations. However, they must:

- mirror the format substantially
- require the same information as a paper consignment note
- any information must be able to be produced in a clear and legible form
- any person who is required to retain and/or carry a consignment note must be able to access and reproduce the information where necessary.

Information cannot be presented as raw unformatted data.

Electronic copies of consignment notes may be given to another person where required, valid formats include:

- email
- secure website
- electronic file (disk, memory card etc)
- fax
- printed as a paper copy.

Appropriate measures must be taken to ensure that inappropriate copying or amendments cannot be made.

As with paper copies, the producer/holder/consignor must:

- read the consignment note information
- sign part D
- retain a copy before waste is removed.

All these actions should be completed before waste is removed.

An electronic signature may be provided, as defined in the regulations as:

*“data in electronic form which are attached to or logically associated with other electronic data and which serve as a method of authentication.”*

An electronic signature may be either:

- an electronic capture of hand-written signature as an image
- any other type of data provided by a person that is capable of serving as an authentication of the person completing a consignment note

More detailed guidance is available from the [Environment Agency](#).

Guidance for consigning waste in Scotland is available [here](#).

Guidance for consigning waste in Northern Ireland is available [here](#).

## 7.5 SMEs and the Landfill Regulations

The Landfill Regulations (2002) impact on many aspects of waste disposal, this includes hazardous waste and SMEs. The Landfill Regulations will ban certain wastes from landfill and SMEs should be aware of this through their contractor, it is still important for SMEs to be aware of these regulations.

All liquid waste has been banned from landfill since 30 October 2007 in England, Northern Ireland and Wales. This includes hazardous liquids, previously banned, and non-hazardous liquids. For further information on liquid waste and diverting non-hazardous liquids from landfill follow visit the [NetRegs](#).

In Scotland liquid wastes are also banned from landfill under a site Pollution Prevention and Control (PPC) permit.

Other wastes with hazardous properties have also been banned from landfill these include:

- explosives – this includes ammunition, gunpowder, flares, detonators and wastes from the explosive industry
- corrosive – this includes acids or alkaline substances
- flammable – this includes solvents with a flash point of 55°C or less, alcohol, phosphorus and magnesium
- oxidising - this includes ammonium nitrate, potassium chlorate, permanganate and sodium chlorate.

Information is provided in the separate material sections below.

Other materials such as new or unidentified chemical substances whose effects are unknown are also banned. This may include wastes deriving from research and development activities.

## 7.6 Asbestos

It is unlikely, many businesses produce asbestos waste on a day-to-day basis, with the exception of specialist contractors who manage this material and should be well aware of the legislation surrounding their operations. However, there are obvious exceptions to this, including:

- construction and building trades
- businesses that own/occupy older buildings that may contain asbestos.

It is important to highlight that any building built or refurbished before 2000, could contain asbestos. Working on or near damaged asbestos containing materials or breathing in high levels of asbestos fibres, which may be many hundreds of times that of acceptable environmental levels, could increase your chances of getting an asbestos related disease.

When these fibres are inhaled they can cause serious diseases which are responsible for around 4000 deaths a year. Information is available from the [Health and Safety Executive](#).

Handling asbestos should be done according to the Control of Asbestos Regulations 2006. The HSE website for [asbestos](#) contains extensive guidance. WISH has published guidance for those handling [asbestos waste at civic amenity sites](#).

### 7.6.1 Asbestos in the construction and building trades

Asbestos can be found in a variety of locations, asbestos was used extensively from the 1940s up until the 1980s. It was used in a number of applications including:

- fire breaks in ceiling voids
- thermal insulation of pipes and boilers
- fire protection in ducts, firebreaks, panels, partitions, soffit boards, ceiling panels and around structural steel work
- used for sound deadening in walls and ceilings, usually as a coating or as tiles
- corrugated sheets for wall cladding, gutters, rainwater pipes and water tanks
- insulation of electrical equipment, and as sandwich or backing materials, for example on wood veneers or linoleum
- asbestos ropes and products woven from asbestos fibres such as cloths
- certain textured coating, decorative plasters and paints, for example 'Artex' type finishes and cornices
- asbestos can also be present in contaminated soil, as a result of poor management in the past. This generally occurs when contaminated building rubble is mixed with soil.

The HSE have provided [guidance](#) on methods for determining the location and types of asbestos.

If you are working on site and suspect that a building/premise or material contains asbestos, work should be halted immediately.

Suitably trained contractors/employees should take samples to identify it. With few exceptions anyone working with asbestos insulation, coatings and insulation board will require a license from the HSE to operate. For work with other forms of asbestos, employers must prevent employees being exposed to asbestos. Where this is not practical, employers must ensure exposure to a level which is as low as possible. This includes double bagging material, suitable PPE for staff and damping materials. More advice is available from the HSE [website](#).

Asbestos must be disposed of as a hazardous waste i.e. must be sent to a facility permitted to accept asbestos.

### 7.6.2 Businesses that own/occupy buildings containing asbestos

There is a duty for businesses who manage/own non-domestic properties to protect people, who work or use non-domestic premises, from the risks of asbestos exposure.

The duty to manage asbestos is contained in regulation 4 of the Control of Asbestos Regulations 2006. It requires the duty holder to:

Find out whether the premises contains asbestos, and, if so, where it is and what condition it is in. If in doubt, materials must be presumed to contain asbestos	Take reasonable steps to find out if there are materials containing asbestos in non-domestic premises, and if so, its amount, where it is and what condition it is in.
	Presume materials contain asbestos unless there is strong evidence that they do not.
	Make, and keep up-to-date, a record of the location and condition of the asbestos containing materials – or materials which are presumed to

	contain asbestos.
Assess the risk	Assess the risk of anyone being exposed to fibres from the materials identified.
Make a plan to manage that risk and act on it	Prepare a plan that sets out in detail how the risks from these materials will be managed.
	Take the necessary steps to put the plan into action.
	Periodically review and monitor the plan and the arrangements to act on it so that the plan remains relevant and up-to-date.
	Provide information on the location and condition of the materials to anyone who is liable to work on or disturb them.

There is also a requirement on anyone to co-operate as far as is necessary to allow the duty holder to comply with the above requirements.

In most cases the duty will fall upon the person or organisation who has clear responsibility for the maintenance or repair of the property/premises. This may be made explicit through the tenancy agreement. More information on who the duty falls upon can be found on the [HSE](#) website.

The duty to manage covers all non-domestic premises. Such premises include all industrial, commercial or public buildings such as factories, warehouses, offices, shops, hospitals and schools. Further information on premise type can be found at [HSE](#).

More information on complying can be found at the [HSE](#).

## 7.7 Portable batteries

The [Batteries Directive](#) will affect all businesses involved during the life cycle of batteries. This includes producers, distributors and end users. It will also impact on those businesses that collect, recycle and/or recover batteries from the waste stream.

There are many different types of batteries that businesses may use; it is useful to define them in terms of the European Waste Catalogue (EWC). The table below highlights the different batteries and their status in the EWC.

EWC code	Battery description	Hazardous/non-hazardous
09 01 11*	Single use cameras using batteries included in 16 06 01, 16 06 02 or 16 06 03	Hazardous-absolute entry
09 01 12	Single use cameras using batteries other than those mentioned in 09 01 11	Non-hazardous
16 06 01*	Lead batteries	Hazardous-absolute entry
16 06 02*	Ni-Cd Batteries	Hazardous-absolute entry
16 06 03*	Mercury containing batteries	Hazardous-absolute entry
16 06 04	Alkaline batteries	Non-hazardous
16 06 05	Other batteries and accumulators	Non-hazardous

16 06 06*	Separately collected electrolyte from batteries and accumulators	Hazardous-absolute entry
20 01 33*	Batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries	Hazardous absolute entry
20 01 34	Batteries and accumulators other than those mentioned in 20 01 33	Non-hazardous

Businesses should ensure that any batteries they dispose of that are hazardous are dealt with appropriately (e.g. not mixed with general non-hazardous waste). Over ordering non-rechargeable batteries and storing them is not good practice as they lose a small amount of their charge over time. When using rechargeable batteries always ensure manufactures instructions are followed, this will lead to longer life of the batteries and reduce the cost to the business, in terms of disposal etc. Further detail is provided in the [legislation](#) section of the Guide.

### Producers

There are many different routes for batteries to enter the market and a business will be bound by producer obligations if it is a:

- domestic manufacturer
- business that assembles battery packs
- importer supplying to retailers or wholesale customers
- importers supplying batteries (inclusive of battery packs) to electrical and electronic equipment (EEE) producers
- importers that are themselves retailers
- businesses that place batteries on the market in EEE or in vehicles.

This is because “producer” means 'any person, in a Member State that, irrespective of selling technique used, including by means of distance communication, places batteries or accumulators, including those incorporated into appliances or vehicles, on the market for the first time'.

### Waste generator

There is no obligation for businesses to recycle their batteries however if the UK is to meet its collection targets for portable batteries, the business community needs to be involved. In general, there is a lack of awareness of battery recycling. One method of recycling waste batteries is through a battery box scheme. An example can be found in the case study [here](#). [WRAP](#) can also provide advice.

The latest information on this Directive can be found at [BERR](#).

## 7.8 Automotive batteries

Waste automotive batteries are often a result of garages, transport/logistic companies and mobile car servicing businesses. Automotive batteries are classed as 16 06 01\* in the EWC and as such are an absolute entry and as such are hazardous regardless of any threshold.

In terms of storage any business should follow the advice given in the following [section](#).

As the recycling infrastructure for automotive batteries is well established, companies should find no shortage of contractors offering a service. Businesses may also be able to work with their suppliers of batteries who may offer a take back service.

Companies that may send end of life vehicles for disposal should be aware of information in Vehicle owners and operators [section](#).

## 7.9 Vehicle owners and operators

Any company that sends end of life vehicles for dismantling or disposal should ensure that the site carrying out the work is an authorized treatment facility and has an [environmental permit](#). A list of authorized treatment facilities can be found at [NetRegs](#)

## 7.10 Clinical waste

The Department of Health (England) Estates and Facilities Directorate issued new guidance entitled Safe Management of Healthcare Waste on 1 December 2006. It was produced collaboratively with HSE and a variety of other Government departments. The guidance is applicable to England, Scotland and Wales.

The guidance is freely available to all via the [Department of Health](#) website.

The Hazardous Waste Regulations 2005 place a duty on waste producers to segregate hazardous and non hazardous waste at source. There are further duties placed upon the consignor of dangerous goods via Carriage Regulations (enforced by [HSE](#)) to ensure appropriate: classification and identification; packaging; marking; labelling; and documentation. The guidance proposes a unified approach to ensure compliance with all of the regulatory requirements – from production, through transport, to disposal.

Infectious clinical wastes from hospitals, medical establishments and veterinary establishments are banned from landfill under the Landfill Regulations. The waste type including waste previously described as ‘human hygiene’ or ‘sanpro’ is now categorised as offensive / hygiene waste, (defined as non-infectious non-hazardous waste which does not require specialist treatment or disposal, but which may cause offence to those coming into contact with it.) WISH guidance on handling this type of waste is in preparation.

Any business producing healthcare waste should assess each fraction and assess it for its chemical and medicinal properties. This will inform the company if the waste needs to be treated as hazardous/special waste.

Businesses producing this type of waste should ensure strict segregation procedures are in place and staff are well trained. Placing non-clinical waste in clinical waste collections will lead to higher disposal costs for a company and should be avoided.

## 7.11 Fire extinguishers

It is unlikely any business will produce significant quantities of spent fire extinguishers for disposal. In terms of good practice businesses should ensure that their supply of working extinguishers includes a service to safely and legally dispose, recover or recycle spent extinguishers.

In terms of halon fire extinguishers, and their correct management please refer to this [section](#).

## 7.12 Waste Electrical and Electronic (WEEE)

There are ten categories of WEEE, within the regulations, highlighted below:

1) large household appliances - e.g. fridges, cookers, microwaves, washing machines and dishwashers	6) electrical and electronic tools – eg drills, saws and sewing machines, electric lawnmowers
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2) small household appliances – e.g. vacuum cleaners, irons, toasters and clocks	7) toys, leisure and sports equipment – e.g. electric trains, games consoles and running machines
3) IT and telecommunications equipment – e.g. personnel computers, copying equipment, telephones and pocket calculators	8) medical devices – e.g. (non infected) dialysis machines, analysers, medical freezers and cardiology equipment
4) consumer equipment – e.g. radios, televisions, hi-fi equipment, camcorders and musical instruments	9) monitoring and control equipment – e.g. smoke detectors, thermostats and heating regulators
5) lighting equipment – e.g. straight and compact fluorescent tubes and high intensity discharge lamps	10) automatic dispensers – e.g. hot drinks dispensers and money dispensers

For the following categories there are extra treatment requirements so treatment facilities have to record these items separately:

- category 1a: cooling appliances containing refrigerants
- category 3/4a: display equipment (computer monitors and televisions)
- category 5a: gas discharge lamps

A full copy of the regulations can be found [here](#) and up to date [guidance](#) from BERR can be found here. The BERR guidance includes advice on how to decide whether a product falls within the scope of WEEE or not.

The WEEE Regulations apply to almost all businesses and will affect a business if they:

- manufacture electrical and electronic equipment (EEE)
- import EEE
- re-brand EEE
- distribute EEE
- sell or supply EEE
- collection, treat, dismantle, recycling, repair or refurbish WEEE
- use WEEE.

There are some exemptions, which include:

- equipment that does not use electricity through battery or mains supply to fulfill its main function
- equipment that is part of another type of equipment that is not covered by the WEEE Regulations. However, other waste regulations may apply to them, for example the End-of-Life Vehicle Regulations cover the electrical components of vehicles
- equipment designed to protect the UK's national security
- filament light bulbs
- household light fittings of any kind
- large industrial tools, permanently fixed in industrial machinery or an industrial location

- high-voltage equipment that is designed to work on exceeding 1,000 volts AC or 1,500 volts DC
- contaminated medical implants and medical equipment
- spare parts that are used to repair EEE
- consumables such as printer cartridges are also exempt.

Dismantling of WEEE should be carried out by authorised treatment facilities only and they are obliged to meet the requirements of Annex II of the Directive. Any dismantling of WEEE should be risk assessed and adequate safeguards be taken to prevent risk. These items may liberate toxic dusts or fumes whenever crushed or abraded, or subjected to heat. The wide range of materials used in electrical equipment prevent specific guidance being given, but the possible inhalation, ingestion and skin absorption of materials (including PCBs, lead, sodium, mercury, phosphorous etc.) should be considered.

### **7.12.1 Producers of EEE**

A producer of EEE is defined as any company that manufactures, imports or resells EEE under their own brand. Companies falling within this definition have a responsibility to ensure the equipment and its components are treated, reused and/or recycled. Producers of EEE must join a producer compliance scheme who will register them with the Environment Agency or other appropriate regulator. A list of approved compliance schemes can be found on [NetRegs](#).

There are two financing operations in place, household WEEE and non-household WEEE (e.g. Business to Business). For household WEEE, a company will pay a fee to the compliance scheme which will relate to the cost of collection, treatment, recovery, and disposal it will equate to the amount of EEE the company place on the market.

### **7.12.2 Distributors of EEE**

This applies to retailers and wholesalers and includes mail order and internet based companies. There are several aspects of the WEEE regulations that a company needs to comply with:

- providing information and marking equipment
- record data
- providing a choice of take-back systems.

More information regarding the requirements and options can be found on the [NetRegs](#) website. Information on WEEE enforcement is available [here](#).

### **7.12.3 End users of EEE**

This will apply to all businesses that use EEE, for example if you wish to dispose of old computers, lighting and/or telecommunications equipment. Businesses should be aware that some WEEE disposal is free if:

- it was sold to the company after 13 August 2005
- the company is replacing it with new equivalent EEE, or
- you rent or lease EEE.

In all circumstances, any company considering purchasing or leasing EEE, should speak to their supplier before they purchase and then make a business decision. However, if the supplier does offer an option for free disposal the company should

obtain and keep the “producer registration number.” This will enable the business to contact the producer’s compliance scheme when the product needs to be disposed of. There should be a producer compliance scheme that can be called upon to collect and treat the WEEE unless the producer has made alternative arrangements with the business. The register of producers on the Environment Agency’s website gives details of which compliance schemes producers are members of.

If the producer refuses to take responsibility a business should contact their environmental regulator. If the equipment you are purchasing is non-historic (e.g. produced after 13 August 2005), this often confirms responsibility with the producer.

There are some circumstances when a business produces WEEE where they may have to pay for disposal. This may be the case if:

- discarding EEE which was purchased before 13 August 2005 (known as historic WEEE), and are not replacing it with equivalent EEE
- can not trace the producer or its compliance scheme
- negotiate an alternative arrangement with your supplier.

There are also circumstances where you may wish to negotiate with suppliers about who takes responsibility for EEE at the end of its life. A business may take a decision to accept responsibility and negotiate a lower purchase price. However, this will mean you may be left with future disposal, recovery or recycling costs.

#### **7.12.4 Fluorescent lighting tubes (gas discharge lamps)**

Fluorescent lighting tubes are classified as an absolute entry in the EWC, code **20 01 21\***, and as such should be treated as hazardous waste. Some companies may have lighting maintenance contractors who replace the lighting; in this case it is good practice to ensure that any contract includes the removal and safe recovery/recycling of them. If a company replaces their own tubes they should ensure tubes are not disposed of in the general (non-hazardous) waste bin. There are a number of companies who can provide collection and recycling services (see [potential support and solutions for businesses](#) for more details of how to find a collector). Many collectors also provide suitable containers for the storage of spent tubes prior to collection. For further information refer to this [section](#).

Businesses should be aware that a consignment note is needed if the waste is generated by the end user (i.e. the bulb is removed from the fixture) and passed onto a facilities management contractor. However if the contractor provides a full service and removes the lighting tubes from the fixture, no consignment note is needed. Facilities managers of multiple occupancy buildings or of multiple buildings should be aware of this difference.

#### **7.12.5 Cooling appliances containing refrigerants (fridges and freezers)**

All waste appliances containing Ozone Depleting Substances (ODS) must be sent for specialist disposal/recovery. If your business uses refrigeration equipment containing ODS it should ensure preventative maintenance to avoid leaks of ODS. If you use internal engineers or external contractors you should ensure they comply with the ODS regulations, for example not allowing ODS to be vented into the atmosphere during maintenance. Equipment manufactured after 1994 is unlikely to contain CFCs (an ODS). However, a company should always use a specialist contractor to dispose of equipment likely to contain ODS.

If you are a business that supplies refrigeration equipment many ODS substances are banned from being placed on the market. However, some can be used for maintenance, or servicing of equipment. The use of virgin hydrochlorofluorocarbons for maintaining and servicing will be banned from 31 December 2009. After this date only the use of recovered or reclaimed refrigerants will be sanctioned. From 1 January 2015 hydrochlorofluorocarbons will be completely banned. Advice on the phasing out of these chemicals and alternatives can be found on the [NetRegs](#) website.

Non-ODS fridges and freezers could be hazardous if they contain pentane or ammonia.

Fridges and freezers also fall within the WEEE regulations and businesses producer, distributing or using fridges should refer to the [WEEE](#) Section.

### 7.13 Gas cylinders

The vast majority of businesses using gas cylinders will have them supplied by a contractor as part of a rental agreement. This usually accommodates the return of empty cylinders for reuse.

Compressed gas cylinders which are empty or appear to be empty but in fact still contain some original content commonly appear in the waste stream at HWRC and metal recyclers. Usually cylinders are well labeled and in many cases the supplier name is stamped on the actual cylinder. However, there maybe occasions where the original supplier cannot be identified, in these cases a specialist company may need to be employed to ensure the safe collection and disposal. The quantities of compressed gas cylinders on a site should be kept as low as is reasonably practicable and they should be collected on a regular basis.

Orphaned gas cylinders are a safety risk because their contents maybe toxic (such as chlorine); flammable (such as propane, butane or acetylene); or pressurised (presenting the risk of the violent release of their contents). Good practice guidance on the safe storage and handling of gas cylinders is available from the HSE Waste Industry Safety and Health Forum (WISH) [here](#).

More information on the safe practice in the manufacture, distribution, storage and use of compressed is available from the [British Compressed Gases Association](#).

In terms of liquid petroleum gas (LPG) cylinders, these too are often provided on rental terms and the bottles remain the property of the supplier. If a business inherits LPG cylinders on site it should return them to their local dealer of the supplier. If this is not clear, guidance is available from the [LPG Association](#). Business should also refer to safety guidance highlighted in the local authority [section](#), with particular reference to the HSE website.

### 7.14 Chemicals and solvents

Many businesses use an array of chemicals and solvents, as such it is not possible to provide guidance on every type of chemical and solvent within the confines of this Guide. However, businesses that use chemicals and solvents should ensure they comply with Hazardous Waste Regulations.

Some businesses that use chemicals and solvents may require a PPC permit. Companies should check with their environmental regulator or local council, to see if they require a PPC permit. More advice on this issue can be found on the NetRegs [website](#). Sector specific advice is also available on the NetRegs website [here](#).

The best approach is to substitute chemicals and solvents for less hazardous substances. For example a printing company purchasing new plant should consider

opting for water based printing if appropriate. There are a number of guides available from [Envirowise](#), on reducing solvents and switching to alternatives.

## 7.15 Tyres

Used tyres have been banned from landfill, under the Landfill Regulations 2005, this includes shredded and whole tyres. However, it does not include bicycle tyres or tyres with an outside diameter greater than 1.4 metres. Some landfill sites do use tyres as part of landfill engineering, but this must be stated in the PPC permit.

If your business produces waste tyres you will have to ensure you use a permitted waste contractor, who sends tyres for any of the following options:

- retreading tyres
- re-using part-worn tyres
- landfill engineering
- export for use abroad
- fuel (primarily in cement kilns)
- stockpiles.

WRAP is also working on breaking down the barriers to collection, segregation and reprocessing of waste tyres. This can be found on the [WRAP](#) website.

## 7.16 Motoring products (including oil)

Advice is included in [Automotive batteries](#), [Vehicle owners and operators](#), [tyres](#) and [motoring products](#) sections. However, it is important to note that several other products require specific management. Such products include:

EWC code	Waste description	Hazardous/non-hazardous
13 07 01*	Fuel oil and diesel	Hazardous-absolute entry
13 07 02*	Petrol	Hazardous-absolute entry
13 * *	Engine and hydraulic oils are listed with category 13 of the EWC, all oils are classed as hazardous	Hazardous-absolute entry
16 01 07*	Oil Filters	Hazardous-absolute entry
16 01 10*	Explosive components (e.g. air bags)	Hazardous-absolute entry
16 01 11*	Brake pads containing asbestos	Mirror entry-hazardous above threshold concentrations
16 01 12	Brake pads other than those mentioned in 16 01 11	Non-hazardous
16 01 13*	Brake fluids	Hazardous-absolute entry
16 01 14*	Antifreeze fluids containing dangerous substances	Mirror entry-hazardous above threshold concentrations
16 01 15	Antifreeze fluids other than those mentioned in 16 01 14	Non-hazardous
16 01 21*	Hazardous components other than those mentioned in	Mirror entry-hazardous

	16 01 07 to 16 01 11 and 16 01 13 and 16 01 14	above threshold concentrations
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This is just a selection of wastes a garage may produce, there may be other wastes that are hazardous and need specialist disposal arrangements. For example this could include vehicle spray shops.

Further good practice advice on fueling and fuel and oil storage can be found at [NetRegs](#). Another useful guide on reducing waste disposal costs associated with hazardous waste for the motor trades industry can be found on the [hazred](#) website.

## 7.17 Paint

Construction firms, painters and decorators may all produce excess paint that could potentially be disposed of as a waste or reused. There are a number of resources at hand that can provide valuable advice on the effective management of paint:

- in terms of storing, applying and disposing of paint guidance can be found at [NetRegs](#)
- a useful guide on using paint efficiently and effectively can be found on the [Envirowise](#) website.

ICI Paints have developed a number of decision trees to enable a producer to allocate the correct waste regulations code to the items to help ensure appropriate disposal via the waste contractor. The decision trees can be obtained from the [ICI website](#) here and visiting the section on “advised method of disposal for paint and woodcare”.

Users of paint may also wish to use estimating tools, available from various websites, to minimise waste. A sample of which are provided below:

[Crown Trade paint calculator](#)

[BBC paint calculator](#)

[Dulux paint calculator](#)

Another option open to commercial businesses is to donate non-hazardous paints to a [Community RePaint](#) project.

If you are an SME that produces non-hazardous surplus paint, please refer to the case study in this guide on [Community RePaint](#). Commercial producers should be aware that they cannot deposit paints at HWRCs run by the local council.

## 7.18 Vegetable oil

Many restaurants, food producers and caterers produce large quantities of used vegetable oil. Used oil cannot be disposed of in sewers or drains. This can create blockages or cause vermin problems in addition to problems within sewage treatment works. In the majority of cases your supplier of oil may offer a collection of used cooking oil.

If you are storing large quantities of vegetable oil, the Oil Storage Regulations or environmental permitting may apply to your business. To find out more on this issue visit [NetRegs](#). Further information is also available in the [other problematic wastes](#) section of this Guide and for a collection, contact [ACORN](#) (Affiliated Cooking Oil Reclaimers Nationwide) for a waste cooking oils collection and recycling service.

## 7.19 Potential support and solutions for businesses

There are a number of directories and websites that provide lists of contractors who may provide services for businesses. This includes:

### In England and Wales:

[Waste Directory for Businesses](#)

[Recycling Directory](#)

### In Scotland:

[Waste Aware Business](#)

A detailed list of organisations that provide business resource efficiency and waste advice is available [here](#).

Throughout the UK, SMEs can also obtain free helpline advice from [Envirowise](#) on issues relating to hazardous waste and minimising it from their processes.

Useful waste reduction plans with specific focus on small businesses and hazardous waste can be found at:

[Construction](#)

[Treatment and/or coating of metals](#)

[Motor vehicle trades](#)

[Printing and/or photo processing](#)

[Chemical manufacturers](#)

[Manufacturers of machinery and equipment](#)

## 8. Case studies

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### 8.1 Minimising trade abuse at Haverton Hill HWRC

The site is staffed by eleven operatives all of whom are rotated so that there are a maximum number of staff on site each day, including weekends. All staff have completed the CIWM Waste Awareness Certificate. The staff are trained to “meet and greet” the public to ensure that all potential recyclable material is placed in the correct skip. The site is open 08.00 to 18.00 in winter and 08.00 to 19.00 in summer.

Commercial waste is not accepted at the centre, which is only intended for household waste. However, householders using or borrowing a commercial vehicle to dispose of their own waste can access the centre by applying for a permit under the site’s van permit scheme. It takes one member of staff to operate the scheme, as there may be up to 400 to 700 requests per month. Applications for a permit can be made by phone, or through an on-line application form. [Click here](#) for more information.

The van permit scheme has reduced the amount of trade waste entering the site which, in turn, has paid for the cost of a security guard.

The site provides collection facilities for the following HHW:

- asbestos
- car and household batteries
- engine oil

- fire extinguishers
- fluorescent tubes
- fridges and freezers
- gas bottles
- household and garden chemicals
- T.Vs
- WEEE items

## 8.2 Managing HHW at Redbridge Household Waste Recycling Centre

Oxfordshire County Council (OCC) provides facilities for collection of a wide range of HHW at the Redbridge Household Waste Recycling Centre, on the outskirts of Oxford. OCC collect WEEE items at the site.

In total, OCC operates eight household waste recycling centres (HWRCs) to serve Oxfordshire's 250,000 households. All of these sites are open 8am until 5pm, with extended opening hours on Thursdays (8am until 8pm) from April to September. Facilities for the collection of a wide range of HHW, including car and household batteries, fluorescent tubes, fridges, oil and televisions, computer monitors and household and garden chemicals are provided at all HWRCs in the county. Facilities for the collection of asbestos are also provided at three sites.

OCC also provides an on-request HHW collection service (a "Chem collect" (or "toxic taxi" service as it has been referred to in various parts of this Guide). A telephone number is provided for members of the public who have any enquiries regarding rubbish that could be classified as hazardous or would like to arrange a hazardous waste collection from their home. Members of the public are asked to make a list of each item including its description, and the description and size of the container, and advised that there may be a waiting period of four to eight weeks. For further information see the [Oxfordshire County Council](#) website.

The Redbridge HWRC is in South Oxford and serves approximately 90,000 households. The site is managed by Weymouth and Sherborne Recycling on behalf of OCC and accepts a total of 15,000 tonnes of household waste per year. The site covers an area of 7,000m<sup>2</sup> and has five staff, with increased cover at weekends. Security arrangements include day-time security guards and CCTV at all sites.

The site provides collection facilities for a wide range of HHW. The materials accepted at the site include the following:

- asbestos
- car batteries
- engine oil
- gas bottles
- household and garden chemicals
- household batteries
- tyres (householders are charged for this service)
- Waste Electrical and Electronic Equipment including:
- fluorescent tubes

- fridges/freezers
- televisions and monitors.

### 8.3 Communicating with SMEs

In 2004, OCC employed a Commercial Waste Reduction Officer, with the primary role of supporting the local business community to reduce, reuse and recycle (RRR). The first piece of work undertaken involved a survey of Oxfordshire businesses to determine what they wanted or needed to be able to RRR.

A series of recommendations were put forward which OCC aimed to deliver over a 2 year period. These included:

- A commercial waste reduction pack (now called the 'Business Resource Efficiency pack').
- The development of a website to include information for businesses.
- The provision of waste audits for small businesses to help them identify how they can RRR and save money.
- The provision of waste workshops for businesses to improve local businesses understanding of their obligations.
- Improvement of business to business resource exchange via [NISP](#) workshops.
- Support the development of a [bring recycling service](#) at one of the HWRCs. The trade recycling provision is not owned or operated by the authority, but it is an example as to how authorities can work with the private sector to improve services for businesses.

OCC utilised a variety of communication methods to engage with its local business community. For example, the commercial waste reduction role utilises pre-existing local business networks, such as local town chambers network, Chambers of Commerce and local pub networks. They also advertise in a local business magazine and local press if there have been appropriate changes to services e.g. when the trade recycling centre was launched a double page spread was placed in the local paper.

With regards to hazardous waste, the workshops and audits help businesses identify the hazardous waste being produced and the pack provides some information as to how they can RRR the hazardous waste. Some district authorities in Oxfordshire provide trade collection services and as part of that service provide a 'Haz Waste Box' for smaller businesses, but the majority leave it up to the private sector to collect.

### 8.4 Accepting SME wastes in West Sussex

West Sussex County Council (WSCC) has a network of 11 Household Waste Recycling Facilities and five Waste Transfer Stations operated by its service provider Viridor Waste Management.

Of these five transfer stations, two can accept commercial wastes from small and medium sized enterprises (SMEs), these are; Burgess Hill waste transfer station and Westhampnett waste transfer station, both of which recently have undergone an extensive redevelopment.

Historically the type of wastes, these sites would accept was mixed general waste to the exclusion of hazardous materials.

Since 2005, there has been much development in recycling and waste legislation. Additionally local authorities are being encouraged to assist businesses with recycling.

In line with these developments WSCC have increased the trade service offered to include recycling for some recyclables including green waste and cardboard.

Issues to consider:

### **Planning and Licensing**

Any site accepting commercial waste must have planning permission and an appropriate environmental permitting. Both facilities in West Sussex are permitted to accept wastes arising from SMEs and are permitted to accept some types of hazardous waste.

### **Site Management**

Primarily transfer stations in West Sussex have been designed for the use of Waste Collection Authorities, therefore a number of issues must be taken into account in order to accept and segregate small quantities of commercial waste from SMEs:

#### **Health and Safety**

Traffic management – difficulties managing smaller vehicles.

Requirement to use PPE and correct visual beacons on vehicles.

#### **Operational**

SMEs will usually deliver wastes as a mixed load, therefore procedures need to be in place to manage mixed loads effectively and with regard to operational issues e.g. a load may consist of some cardboard and some general waste.

### **Pricing structure**

To encourage segregation of recyclable materials e.g. green waste and cardboard from general landfill waste different pricing structures must be in place to reflect the charges. For example reprocessing costs to recycle cardboard will be different in comparative to landfill charges.

### **Communication**

Many SMEs are unaware of requirements of waste management legislation and their obligations as a business. This information needs to be communicated simply at the site. WSCC and Viridor are currently developing publications to inform SMEs of waste acceptance criteria at WSCC transfer stations.

## **8.4.1 Managing hazardous WEEE, specifically TVs and fridges**

### **WEEE similar in nature and quantity to household type WEEE**

Further to the introduction of the WEEE regulations, WSCC and Viridor have put in place a procedure for acceptance of small quantities of electrical items including hazardous WEEE such as fridges or TVs/monitors. This has been developed specifically for WEEE produced by SMEs that is classed as WEEE similar in nature and quantity to household type WEEE and which otherwise the SME may have difficulties in finding disposal outlets for.

### **Business-to-business WEEE**

WSCC and Viridor have developed a procedure and pricing structure for WEEE from SMEs that is classed as business-to-business WEEE (e.g. office IT equipment).

### **Consignment Notes**

In line with Hazardous Waste (England and Wales) Regulations 2005, any delivery of hazardous WEEE from an SME must also be accompanied with a consignment note.

This involves an additional administration charge to the customer. There are no exemptions on consignments notes regardless of the quantity.

#### 8.4.2 Accepting household type WEEE from businesses

Under part 1 of the WEEE Regulations 2006 the definition of WEEE is defined as follows “WEEE from private households” meaning WEEE which comes from private households and from commercial, industrial, institutional and other sources which, because of its nature and quantity, is similar to that from private households.

##### Scenario for managing household type WEEE from businesses

WEEE classification	Example	WEEE classification	Applying this to West Sussex	Responsibility to covers costs
'WEEE from private households'	<p>Businesses producing household type WEEE, which because of its nature and quantity is similar to that from private households.</p> <p>Examples:</p> <p>Office with an old fridge or monitor.</p> <p>Shop with a small number of electrical appliances.</p>	Yes – classed as Business 2 Consumer WEEE	<p>Can only be accepted at transfer stations – cover duty of care.</p> <p>Must be brought to site in a segregated state.</p> <p>Handling charge is levied.</p> <p>Restrictions on vehicle size and waste type and quantities.</p>	Producer Compliance Scheme covers the costs of collection and treatment etc.

##### Procedure for acceptance of household type WEEE from businesses

WSSC and Viridor have developed the following procedure to define 'acceptable amounts' for SMEs bringing household type WEEE to transfer stations. No guidance is currently available from BERR on what constitutes acceptable amounts from businesses in relation to the definition of WEEE from private households. BERR have indicated this is at the discretion of the local authority and the service it wishes to provide small businesses.

The nature and quantity of household WEEE, for the purposes of this procedure, is defined as:

Category of WEEE	Examples of WEEE Items	Maximum number allowed in any one visit
<b>Cat A</b>		
Large Domestic	Electric cooker	2

Appliances		
	Washing machine	2
	Dish washer	2
	Tumbler drier	2
	Microwave	2
<b>Cat B</b>		
Fridge & Freezer	Fridge or Freezer	2
<b>Cat C</b>		
CRT	Television	2
	Computer monitor	2
<b>Max. Total Number of Category A + B + C per visit</b>		<b>6</b>
<b>Cat D</b>		
Gas discharge lamps	Fluorescent tubes and low energy bulbs	6
<b>Cat E</b>		
Small Domestic Appliances	Power tools, electric toys, irons, hairdryers, desktop printer/fax, vacuum cleaners etc	12
<ul style="list-style-type: none"> <li>• No large office type electrical equipment will be accepted as household type WEEE</li> <li>• Maximum number of visits for a business delivering household type WEEE</li> <li>• Business details to be entered onto WEEE Database and sent to the producer compliance scheme.</li> </ul>		

## 8.5 Collecting IT WEEE from businesses in Scotland

[LEEP Recycling Ltd.](#) is an Edinburgh based social enterprise that is part of Changeworks, a sustainable development charity. LEEP Recycling runs a recycling collection from Small and Medium sized Enterprises (SME's) for paper (including confidential documents), cardboard and cans.

Supported by WRAP's (Waste & Resources Action Programme) SME Recycling Programme, LEEP Recycling ran a trial to provide an IT equipment collection service for SMEs with an optional secure destruction service for confidential data stored on hard drives. Monitors, PCs, fax machines, printers, shredders, photocopiers and other electrical equipment were collected on an on demand basis. Marketing materials were produced by the Scottish Waste Aware Group (SWAG) that highlighted a business' obligations under the WEEE Directive and the Data Protection Act. LEEP Recycling worked in partnership with Restructa, Ltd., based in Irvine. Restructa Ltd dismantled the equipment under an appropriate Scottish Environment Protection Agency (SEPA) licence, and the components were recycled through third parties.

The WEEE regulations meant there was an interest from businesses to dispose of their waste in a legal and traceable manner and it was apparent there was a gap in the market for provision of collection of small amounts of WEEE from SMEs. There were existing services for larger businesses and those with large amounts of equipment, but

it was much more difficult and expensive for small businesses to recycle relatively small amounts as most collection services have a minimum amount to be collected or a minimum charge for uplifts.

No contracts were used as the collections were mainly one-offs and no minimum uplift quantity was specified. For audit trail purposes and compliance with legislation, a receipt and Waste Transfer Note were issued at the time of collection. If confidential information was to be destroyed, the serial number of the hard drive was requested and a certificate of destruction was issued once the hard drive was destroyed.

The collection charges are presented below. The average uplift cost was £80 which is considerably less than the £166 (+ VAT) charged by the local council for any collection of electrical equipment. Many of the businesses had only one or two items and the cost would be approximately £20.

<b>Collection charges (excl VAT)</b>	
Monitors	£9.00
PC	£9.00
Secure destruction of hard drive	£12.00
Printer or fax machine	£8.00
Keyboard, mouse	FREE

Consignment notes were needed for collections of monitors as they are classified as hazardous waste. These consignment notes cost £15.00 each from SEPA, but it was possible to distribute the cost over several businesses making the scheme more financially viable for smaller businesses and those with a small amount of material to dispose of. The consignment notes were sent at least 3 business days before any collections of monitors took place and included the address and number of monitors to be collected. If the business had more monitors than expected, a separate collection was arranged.

Trial customers were a mix of those already benefiting from LEEP Recycling dry recyclables collections and also new customers, the vast majority were offices. 95% of collections were from SMEs with fewer than 50 staff. A total of 31,954kg material was collected which was an average of 211kg per client.

Businesses are required to obtain and keep proof that any WEEE is given to an authorised waste management company and disposed of in an environmentally sound way. The trial used a database and collection record system to accurately record and invoice for the collections.

<b>Barriers to recruitment</b>	<b>Recruitment advantages</b>
Head office elsewhere that dealt with IT centrally. Often these organizations had a recycling system in place	No minimum uplift
Leased equipment that when replaced it gets taken back by the hire company	Wide range of IT equipment that could be collected
No IT equipment in the workplace	Flexible trial partner, Restructa, with regard to acceptance of equipment
Reused by staff or given to charities to avoid paying for an uplift	Local collection company and local processor
New business with no redundant IT equipment	Competitive price

A good level of customer service, competitive rates and no minimum collection all added to the success of the trial. However, offering such as a service on its own is unlikely to be profitable but as an integrated element of a broader recycling business it has the potential to contribute towards a sustainable business. There is potential to include collection of good quality material for reuse rather than recycling by involving charities.

## 8.6 Distributor Take Back Scheme (WEEE)

Under the Waste Electrical and Electronic Equipment Regulations 2006 from 1 July 2007 all distributors supplying EEE to householders must provide facilities to enable their customers to return old equipment free of charge when buying a replacement item.

Distributors can meet this obligation in several ways. They can offer takeback either in store or at local collection points, or they can join the Distributor Takeback Scheme (DTS) operated by Valpak Retail WEEE Services Ltd. DTS membership fees support a network of Designated Collection Facilities (DCFs), primarily at local authority sites, where consumers can dispose of their household WEEE free of charge. Local authorities can either apply for their HWRCs (or waste transfer stations) to become DCFs as part of the WEEE collection network. They can stay outside of the DTS and pay for the treatment of their separately collected WEEE themselves. All local authorities that operate HWRCs have registered their sites as DCFs. You can see a list of DCFs on the Valpak website [here](#). There are 1569 DCFs in total (February 2008). These are broken down as follows: HWRCs 1113, Commercial DCF (businesses operating as DCFs) 105, not-for-profit organisations (usually charity reuse sector) 71, regional distribution centres (retailer collection by DTS members) 39 and waste transfer stations (usually bulky waste collections) 241.

DCFs have to meet the standards outlined in the producer code of practice, which was developed by local authorities and producer schemes and published by the BERR in early 2007. There are no message, storage or transport standards that are required, although agreement will be developed between local authorities and partner producer compliance schemes. The main commitment in the code of practice is to allow producer schemes access to separately collected WEEE, having collected it in line with some basic requirements. A payment of £6,000 was made by the DTS to local authorities for every HWRC registered as a DCF. Where councils can demonstrate requirement for additional funding at a particular site, this is available up to a total of £9,000.

Any distributors opting for in-store take back will not be able to register their premises as DCFs. Distributors offering in-store take back can return collected WEEE to a PCS or an AATF working on their behalf. The distributor is required to meet any costs arising from the transportation of the WEEE to the AATF. The cost of treatment, recycling and recovery will remain the obligation of the PCS.

The WEEE regulations place an obligation on producers of EEE to ensure that a proportion of waste electrical and electronic equipment is re-used or treated and recovered. To show that producers have met their obligations they need to get evidence from the treatment facilities or the exporters of separately collected WEEE that it has been treated and recovered. Only approved authorised treatment facilities (AATFs) or approved exporters (AEs) can issue evidence notes. These evidence notes can only be issued against separately collected WEEE that has been delivered to an AATF or AE by or on behalf of a producer compliance scheme (PCS) or a local authority DCF (where there is no contract with a PCS). Any WEEE entering the system (for example direct from an end-user) will not have obligations on it and must not have evidence issued against it. Guidance for issuing evidence notes is available from the Environment Agency [here](#).

## 8.7 Battery collections

G & P Batteries offers a complete battery collection and recycling service. Although all business is conducted via commercial and local authority customers, G & P is largely responsible for the collection of domestic batteries through local civic amenity sites. From its West Midlands headquarters G & P covers the whole of the UK offering a specialist, dedicated and compliant service for the collection and responsible recycling of all waste batteries, both lead acid and non-lead acid.

Most batteries are classified as hazardous waste and as such need to be stored, transported, sorted and recycled in a manner which complies with all current legislation. G & P holds all the necessary permits to enable the company to offer a fully compliant service which operates on four distinctive levels:

**Bank** –The company offers a wide range of storage options, Battery Banks, for batteries to be safely stored prior to collection. These can range from industrial sized containers used at civic amenity sites to the recently launched BattBox, a neat polypropylene container designed for office use.

**Collect** – G & P drivers are trained to at least the minimum standard to meet the legislative requirements for the hazardous and dangerous materials being collected.

**Sort** – Waste batteries are returned to G & P's Darlaston headquarters where the experienced sorting team separates the batteries into their various chemical categories prior to their onward journey for recycling.

**Recycle** - All lead acid batteries collected by G & P are recycled within the UK, as are alkaline and zinc carbon batteries, which account for more than 90% of non-lead acid waste batteries.

The UK has a good track record in the recycling of lead acid batteries, with more than 90% of waste lead acid batteries being sent for recycling within the UK, largely driven by the market value for lead. Currently UK consumers recycle less than 3% of waste portable batteries, meaning that attitudes to battery recycling must change dramatically if the UK is to reach its target of 25% by 2012, rising to 40% by 2016.

For more information on the [BattBox](#) and [G & P Batteries](#) visit their website.

## 8.8 Hampshire County Council's Waste Acceptance Policy

The HWRC Waste Acceptance Policy forms a major schedule to the main HWRC contract of Hampshire County Council. There are also appendices to this policy which are not reproduced here.



### **Hazardous household waste**

Hazardous Household Waste is defined by the National Household Hazardous Waste Forum ([www.nhhwf.org.uk/](http://www.nhhwf.org.uk/)) as 'any material discarded by a household that is difficult to dispose of or which puts human health or the environment at risk because of its chemical or biological nature'.

Hazardous household waste items include household and garden products containing chemicals, spirits and unmarked fluids, asbestos, some batteries and some non-water based paints.



### Items containing Cement Bonded Asbestos (CBA)

Items containing CBA will only be accepted at five HWRCs specifically permitted to accept it. Quantities of CBA must not exceed 15 sheets, of no greater size than 120cm by 60cm sheets. This is approximately equal to the amount that comes from a normal single garage roof. All other aspects of the household waste acceptance policy must be adhered to. No other types of asbestos, including any form of fibrous asbestos, will be accepted at any HWRC.

#### Guidance

Customers should be advised that an alternative disposal method will need to be sought for quantities greater than the amount specified above and for other types of asbestos. A list of alternative options for the re-use, recycling or disposal of waste types or quantities unable to be accepted at HWRCs can be found in an appendix of the waste acceptance policy.

The delivery of CBA **must** be pre-booked by telephone with site staff prior to delivery to ensure that there is spare capacity for the material and to confirm the items will be packaged appropriately. For health and safety reasons, all whole sheets are to be wrapped securely in plastic sheeting and should be transported whole, where possible, as cutting or breaking sheets may release dust. Any small or broken pieces are to be double-bagged and sealed with tape to ensure no dust escapes during transit. All asbestos is to be placed in the dedicated container still bagged or in whole sheets

Dedicated lockable containers for CBA are located at specified HWRCs throughout Hampshire. It is not practical to put containers for CBA on all HWRCs because of the relatively small amounts requiring disposal, plus the space limitations at HWRCs.

The appendix of the waste acceptance policy contains details of which HWRCs are permitted to accept CBA and for guidance on the safe removal of asbestos. For safe handling guidelines contractor site staff should use their own risk assessment procedures. In addition to the guidance issued by the Council, once on site, CBA should be handled, stored and transported separately to other materials.



### Household Batteries

Household batteries are accepted at all sites. All types of domestic batteries will be accepted including small household Nickel-Cadmium (Ni-Cd) batteries (e.g. from toys, TV remote controls etc), laptop and mobile phone batteries.

#### Guidance

All batteries, regardless of type, are to be placed in the designated red wheelie bin. Batteries will then be subsequently sorted off-site by a specialist contractor into individual types to enable recycling of the component materials.



### Paint

Please see the waste acceptance for policy details on the acceptance of both water based and non-water based paint.



## Chemicals

Currently eleven sites can accept household and garden products containing hazardous chemicals used in the house or garden, such as pesticides, lawn treatments, white spirit, insecticides, antifreeze or wood preservatives. Site staff must advise customers on the acceptance of this kind of waste as chemicals are to be placed within the dedicated locked containers for safe storage.

### Guidance

Chemicals must be brought to the site stored within suitable containers, and labelled with detail of the chemical, to allow for appropriate disposal. If a chemical cannot be identified, customers should ask site staff for guidance.



## Munitions and Explosives

None of the sites are permitted to accept munitions or explosives i.e. shotgun cartridges, bullets, flares, hand grenades etc. Should any of these items be discovered then they should be quarantined in a secure part of the site and the Police notified immediately.

In addition, there is the following section from the "Cleanliness" part of the contract:

*In the event of spillage of waste oil or other potentially hazardous liquids on a HRC, the Contractor shall take immediate action to prevent liquid contamination reaching the drainage system or otherwise escaping from the HRC. The Contractor shall provide equipment to deal with any spillage and dispose of any contaminated material at the Contractors expense. At the Council's discretion the Council may contribute to this cost."*

## 8.9 Cost of collecting chemicals and other HHW at HWRCs

HCC has been accepting household and garden chemical products at HWRCs since the mid-1990s. The council collects a range of other HHW materials through the network of 26 HWRCs in the county, including car batteries, fridges and freezers, waste oils and WEEE. Cement bonded asbestos is also accepted at five specially permitted sites.

In 2002, a scheme to collect hazardous household chemicals such as garden pesticides and white spirit was set up at a handful of HWRCs. Since its establishment, the scheme has been expanded to a total of 11 sites and now includes household batteries, fluorescent lighting tubes and bulbs.

Collections of chemical products from the HWRCs are carried out by Veolia Environmental Services (formerly Onyx), HCC's main waste management contractor. The disposal method used for chemical products is pyrolysis, at a facility operated by Compact Power in Bristol which recovers energy from the treatment process. Household batteries and fluorescent lighting tubes are collected by specialist contractors for reprocessing and recycling.

The rough costs involved in setting up and running the collections of chemical products at each HWRC are as follows:

<b>Set-up costs</b>	<b>Cost £</b>
Fees to the EA for modification of Environmental Permit	2,300
Publicity (leaflets and signs)	350
Lockable container for chemical HHW products	3,500
Lockable container for fluorescent tubes	450
Container for fluorescent bulbs	150
Container for household batteries	50
Spillage kit and PPE	700
<b>Total per site</b>	<b>7,500</b>
<b>Total cost for 11 sites</b>	<b>82,500</b>

<b>Running costs (estimated annual costs per site)</b>	<b>Cost £</b>
HHW chemical products (average 50kg per month = 600kg annual total @£1.50/kg)	900
Fluorescent tubes/ bulbs (6 containers emptied @ £150 each)	900
Household batteries (600kg @ £2.00/ kg)	1,200
<b>Total per site</b>	<b>3,000</b>
<b>Total cost for 11 sites</b>	<b>33,000</b>

#### **Chemicals safe**

photo of chem. safe

#### **Fluorescent tubes container**

photo of container

#### **Household batteries bin**

photo of batteries bin

## **8.10 Communication with the public on HHW issues**

Hampshire County Council (HCC) has expanded its HHW collections in recent years, and has been engaged in a series of communications initiatives to ensure that the public have been aware of services. Also, recent bans on a number of garden chemicals that have been enforced as a result of EU legislation have been the subject of separate publicity.

The implementation of the expanded scheme in April 2003 was timed to coincide with the start of the traditional 'spring clean' and gardening season. A [press release](#) and 'Householder's Guide' [leaflet](#) were produced to publicise the launch of the scheme.

The 2004 EU Directive on pesticides made it illegal to sell, use and keep certain garden products after particular dates. HCC issued a series of [press releases](#) to tie in with these deadlines. In addition, a joint publicity initiative was agreed between the HCC and the Crop Protection Association. A small credit card sized advice card was produced and distributed to all major garden centres in Hampshire.

A total of 1.96 tonnes of household and garden chemical products were collected at participating Hampshire HWRCs in the period April 2003 – December 2003. Following the pesticides ban and the publicity initiatives on this issue, 2.92 tonnes of chemicals were collected from January – March 2004.

The HHW collection scheme expanded to include acceptance of household batteries, fluorescent lighting tubes and fluorescent lighting bulbs which was publicised through a [press release](#). The scheme proved to be very popular, with 1.75 tonnes of fluorescent tubes and bulbs and 2.42 tonnes of household batteries collected from April 2004 – December 2004.

Finally, the scheme was extended to a further two HWRCs in February 2005, bringing the total operating the collections to 11 of the 26 HWRCs in the county. This extension was publicised by a [press release](#) and the '[Householder's Guide](#)' was also updated to provide full details of collections at the participating HWRCs.

## **8.11 Corporation of London householder and SME collection**

The City of London operates a "Household Hazardous Waste Collection and Disposal Service (HHWCDS) on behalf of 31 of the 32 London boroughs. The service has been provided since 1999. It is available to households and SMEs.

The service is free in some boroughs to householders up to a specified quantity, but the costs of collection and disposal are always charged to SMEs. The service is also used to collect fly-tipped hazardous materials such as barrels of used motor oil and mixed chemicals.

The service is provided on behalf of the boroughs by the City of London through a contractor, CSG Lanstar.

Waste producers can request the service via the [website](#) or via telephone. Waste producers are asked to provide specific details on the pick up location and types of waste. They are then informed of any charges that may be levied for the service.

The collection uses a modified transit van which is used to collect and safely contain the waste. The vehicle can collect up to one tonne of hazardous waste including any heavy or awkward items which can be loaded using an internal winch.

Hazardous materials are listed, packed, separately labelled and consolidated prior to onward transportation to [CSG Lanstar's](#) plant in Manchester, where the materials are treated and disposed of using appropriate techniques to mitigate any environmental impacts.

Advertising and promotion of the service is left to the discretion of each of the individual London boroughs. As a general rule, the service is promoted in a low key way through websites and occasional newsletters.

## **8.12 Dealing with traders at Durham County Council HWRCs**

Durham County Council (DCC) has 15 HWRCs within its borders; it introduced a permit scheme to discourage trade waste abuse in December 2004. The permit scheme requires any vans, trailers or pickup vehicles to apply for a permit. A permit allows one visit per vehicle, owners of these vehicles may apply for up to five permits at a time. They are then valid for 28 days. Permits can be acquired by residents electronically or by visiting town hall or local council offices. The application process records the address and vehicle details and allows council staff to monitor and respond to any potential abuse.

The reason for introducing the permit system was because previously there was a dramatic increase in trade waste abuse and it was calculated that in 2004 this contributed an extra £1 million in costs to the council.

When the permit scheme was introduced there was a dramatic decrease in tonnages at the sites. Tonnages at three HWRCs fell by over 50%, highlighting the previous abuse.

DCC provides information to traders on where to dispose and recycle their waste.

Clearly the permit scheme also had a major impact on hazardous and non-hazardous waste entering sites.

In order to promote good practice and increase good waste management practice amongst traders, DCC is currently commissioning a business card and advice booklet for small traders to use. This includes information and advice on:

- good waste management practices and recycling
- duty of care
- hazardous and non-hazardous waste
- toolkits and advice.

The guide will be distributed through hire shops and other outlets which are used by the target audience. Other useful information on [trade waste input and controls](#) is available.

### 8.13 Fly-tipping

Fly-tipping and hazardous waste is an issue across the UK. The table below gives a summary of some indication of the levels of hazardous waste fly tips.

Types of fly-tipped waste	Mean number of incidents per month (per million population)
White goods incidents	90.10
Tyres incidents	41.41
Other electrical incidents	30.51
Chemical drums oil fuel incidents	7.70
Asbestos incidents	5.36
Clinical incidents	3.79

Source: Fly-tipping causes, incentives and solutions, University College London, 2006

Although these cases are relatively low compared with other types of fly-tipping (e.g. highway incidents 797.99 per million population), they do require specialist techniques to deal with them. It is also important to recognise that although the incidents involving hazardous waste are relatively rare the impact on the environment and associated clean up costs is clearly disproportionate.

A good practice guide and case study material regarding fly-tipping in general is available from [Defra](#).

### 8.14 Private sector collections from SMEs

Veolia Environmental Services operate EcoServices, a specialist collection and packaging service for small packaged hazardous waste such as laboratory chemicals,

solvents, aerosols, batteries, fluorescent tubes/bulbs, garage wastes, household hazardous waste, oils, paint wastes, pharmaceutical wastes, photographic printing and WEEE.

EcoServices includes a full on-site audit of waste undertaken by fully trained mobile chemists and an identification service with hazard assessment to include laboratory analysis if required.

The waste can be taken to one of nine Veolia hazardous disposal facilities (Durham; Preston; Liverpool; Sheffield; Ellesmere Port; Aldridge, West Midlands; Bedfordshire; Cambridge and Southampton) which are all ISO9001 accredited. Alternative fully permitted facilities for hazardous waste are also available.

The collection service is tailored to meet the needs of the customer, therefore a scheduled service is provided to those clients, who it benefits most, removing from them the task of arranging each collection; and for those whose wastes vary in volume and variety of waste materials, containers can be collected or exchanged on an on-demand basis. For those customers whose waste requires a more detailed assessment, EcoServices are able to supply trained chemists to identify, list, package, label and sample wastes as required.

EcoServices offer a wide variety of drum and box containers for the storage of lamps, fluorescent tubes, batteries, automotive wastes as well as other hazardous wastes. An exchange service is offered whereby an empty replacement container is delivered at the time of the waste collection. Customers are provided with consignment notes and labels as necessary.

The 'one-stop-shop' service ensures legislative compliance and is in line with the latest health and safety requirements. Single source provision saves customers time and money and avoids supplier interface problems.

## 8.15 Community RePaint

Community RePaint is a national network of paint reuse projects, primarily operated by community recycling groups (and also some local authorities). The programme originated on a model focused around members of the public donating "half-tins" of leftover, reusable domestic paint which members of the public donate in designated containers at household waste recycling centres (HWRCs). Approximately half the network offers this facility to the general public. The remainder of the network concentrates on collecting end-of-line, damaged tins and mistints (paint unsuccessfully mixed to a specific colour or shade) from paint manufacturers plus DIY and other retailers.

There is a growing trend for Community RePaint projects to also accept surplus paints from painters and decorators and local companies with leftover paint. Several projects make a small charge for this service, which is considerably less than the increasing cost of hazardous waste disposal. More information is available on the [Community RePaint](#) website (trade/retailers section). Paint is redistributed to local charities, community and voluntary groups, individuals and families in social need for a small donation or free of charge in cases of genuine need.

There are 65 Community RePaint projects in operation across the UK, stretching from Cornwall to Belfast to the Shetland Isles, with more being added each year. In 2006, the network collected 235,000 litres of paint in total. Of this, 208,000 litres (worth over £800,000) were redistributed to 11,000 beneficiaries. Operation of the network also supports employment of 90 part-time workers and 140 volunteer positions, for example for the long-term unemployed and people with learning difficulties while delivering 150 training initiatives (e.g. in health and safety, manual handling), many accredited to NVQ or City and Guild level.

[Seagulls Re-use Ltd](#), run Community RePaint Leeds and operate a collection service to local painters and decorators and companies, picking up surplus paints for reuse in the community. This avoids paint being sent for incineration/heat treatment, provides a valuable resource for individuals and organisations unable to afford the cost of new paint while providing a service to local businesses at a cost considerably less than that of hazardous waste disposal.

### Technical advice and support

More information on Community RePaint operations including advice and briefing notes on how to set up a new project, is available on their [website](#) or by [email](#).

## 8.16 Additional Case Studies

There are a number of other websites that have case studies that may be of interest. A sample is provided below:

- [Bulky Bobs commercial waste collection](#)
- [Designing out hazardous substances to comply with RoHS and WEEE](#)
- [Blackburn with Darwen dealing with abandoned vehicles](#)
- [National fly-tipping prevention group](#)
- [WEEE recycling in prisons](#)
- [Tyres used as a landfill material](#)

## 9. Links

Subject Area	Organisation
Capital funding	<a href="#">Energy Saving Trust</a> <a href="#">Government Funding</a> <a href="#">Manufacturing Advisory Service (MAS)</a> <a href="#">Waste Resources Action Programme (WRAP)</a> <a href="#">The Carbon Trust</a>
Devolved Administrations	<a href="#">Northern Ireland Environment and Heritage Service (NIEHS)</a> <a href="#">Scottish Environmental Protection Agency (SEPA)</a> <a href="#">Scottish Executive</a> <a href="#">Welsh Assembly</a>
Environmental audits	<a href="#">Environment Agency</a> <a href="#">Envirowise</a> <a href="#">Manufacturing Advisory Service (MAS)</a>
Environmental legislation	<a href="#">NetRegs (Environment Agency)</a> <a href="#">Office of Public Sector Information</a>
European legislation	<a href="#">Europa</a>

Subject Area	Organisation
Government departments and agencies	<a href="#">BREW Centre for Local Authorities</a> <a href="#">Department for the Environment, Food and Rural Affairs (Defra)</a> <a href="#">Department for Business, Enterprise &amp; Regulatory Reform (BERR)</a> <a href="#">Department of Health</a> <a href="#">Environment Agency</a> <a href="#">Health and Safety Executive</a> <a href="#">Health Protection Agency</a>
Local authority support	<a href="#">BREW Centre for Local Authorities</a> <a href="#">Waste Information Network</a> <a href="#">Waste Resources Action Programme (WRAP)</a>
Manufacturing efficiency	<a href="#">Envirowise</a> <a href="#">Manufacturing Advisory Service (MAS)</a> <a href="#">Waste Resources Action Programme (WRAP)</a>
National sources of information	<a href="#">Business in the Community</a> <a href="#">Chartered Institution of Waste Management (CIWM)</a> <a href="#">Energy Saving Trust</a> <a href="#">Envirowise</a> <a href="#">Institute of Environmental Management and Assessment (IEMA)</a> <a href="#">The Carbon Trust</a> <a href="#">Waste Resources Action Programme (WRAP)</a>
Product design efficiency	<a href="#">Energy using products</a> <a href="#">Market Transformation Programme (MTP)</a> <a href="#">Sustainable development</a> <a href="#">Waste Resources Action Programme (WRAP)</a>
Reduction of greenhouse gas emissions	<a href="#">Energy Saving Trust</a> <a href="#">Green Chemistry Centre of Excellence for Industry</a> <a href="#">The Carbon Trust</a>
Waste minimisation, reuse, recycling and recovery, including hazardous wastes	<a href="#">Chartered Institution of Waste Management (CIWM)</a> <a href="#">Envirowise</a> <a href="#">Hazred</a> <a href="#">National Industrial Symbiosis Programme (NISP)</a> <a href="#">Waste Resources Action Programme (WRAP)</a>
Trade associations	<a href="#">British Aerosol Manufacturers' Association</a>

Subject Area	Organisation
	<a href="#">British Coatings Federation</a> <a href="#">The Painting and Decorating Association</a> <a href="#">British Compressed Gases Association</a> <a href="#">LP Gas Association</a>
Training	<a href="#">Chartered Institution of Waste Management (CIWM)</a> <a href="#">Envirowise</a> <a href="#">Institute of Environmental Management and Assessment (IEMA)</a> <a href="#">Waste Management Industry Training and Advisory Board (WAMITAB)</a> <a href="#">Waste Resources Action Programme (WRAP)</a>
Membership organisations	<a href="#">Business in the Community</a> <a href="#">Chartered Institution of Waste Management (CIWM)</a> <a href="#">Federation of Small Businesses (FSB)</a> <a href="#">Institute of Environmental Management and Assessment (IEMA)</a> <a href="#">National Industrial Symbiosis Programme (NISP)</a>
Waste management contractors	<a href="#">Waste Resources Action Programme (WRAP)</a> <a href="#">Waste directory</a> <a href="#">Waste Aware Business</a>

## Appendix 1: Household Hazardous Type Waste Products List

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This products list has been developed on behalf of the National Household Hazardous Waste Forum (NHHWF) to be used in conjunction with the generic definition of waste.

Household hazardous waste has been defined by the Forum as “any material discarded by a household, which is difficult to dispose of, or which puts human health or the environment at risk because of its chemical or biological nature.”

The list was developed after extensive research and consultation with industry specialists and has been updated a number of times to take account of recent changes in hazardous waste legislation. Information in the following tables is provided under a number of product headings:

- decorative paints, coatings and related products
- garden chemicals
- petcare products
- motoring products
- household appliances
- household materials
- household chemicals.

### **Generic product group**

Information on products is given within generic product groupings with no reference to proprietary product names.

### **Component(s) of concern**

The component in the product that is the cause for concern is listed associated with a definable hazard. Components are listed under a generic grouping (eg hydrocarbon solvents) rather than a proprietary name.

### **Hazard classification**

The hazard classification refers to the CHIP symbol on the product.

### **Reasons for inclusion/collection**

The reasons for inclusion may be related to a particular piece of legislation (eg the Ozone Depleting Substances Regulations), or some other property (such as mess or contamination of other wastes) that makes the product a problematic waste.

### **EWC relating to municipal waste**

Reference has been made to the relevant code in List of Wastes (England) Regulations 2005. All the wastes listed as hazardous under municipal wastes (20 01 separately collected fractions) are included. Other codes have been used where there is no relevant municipal code, primarily 13 (Oil waste and waste of liquid fuels) and 16 (Wastes not otherwise specified in the list).

DISCLAIMER: These assessments are generic and the specific components of each item should be examined.

<b>HHW category: DECORATIVE PAINTS, COATINGS AND RELATED PRODUCTS</b>				
<b>Generic product group</b>	<b>Component(s) of concern</b>	<b>Hazard classification</b>	<b>Reasons for inclusion/collection</b>	<b>EWC relating to municipal waste</b>
Emulsion paints  Gloss paints (water-borne)  Eggshell paints (water borne) Masonry paints (water-borne) Wood primers (water-borne) Woodstains (water-borne) Wood varnishes and wood care products (water-borne)	Wet paint in its container  (Note: no individual components)	Not hazardous	Liquid material creating mess or nuisance Spills can result in contamination of:  - refuse collection vehicles - personnel - streets - other recyclable materials	20 01 28 paint, inks, adhesives and resins other than those mentioned in 20 01 27

<b>HHW category: DECORATIVE PAINTS, COATINGS AND RELATED PRODUCTS</b>				
<b>Generic product group</b>	<b>Component(s) of concern</b>	<b>Hazard classification</b>	<b>Reasons for inclusion/collection</b>	<b>EWC relating to municipal waste</b>
Gloss paints (solvent-borne)	Wet paint in its container	Flammable	Liquid material creating mess/nuisance	20 01 27* paint, inks, adhesives and resins containing dangerous substances
Undercoat paints (solvent-borne)	Hydrocarbon solvents		Spills can result in contamination of:  - refuse collection vehicles - personnel - streets - other recyclable materials	(if above threshold limits: the majority of amateur products in this group are below the threshold limits)
Masonry paints (solvent-borne)				20 01 28 paint, inks, adhesives and resins other than those mentioned in 20 01 27
Metal primers (solvent-borne)				(if above threshold limits: the majority of amateur products in this group are below the threshold limits)
Wood primers (solvent-borne)				
Woodstains (solvent-borne)				
Wood varnishes and wood				

care products (solvent-borne)					
<b>HHW category: DECORATIVE PAINTS, COATINGS AND RELATED PRODUCTS</b>					
Generic product group	Component(s) of concern	Hazard classification	Reasons for inclusion/collection	EWC relating to municipal waste	
Aerosol paints	Hydrocarbon/ketone/alcohol/ ester solvents	Flammable Extremely flammable Highly flammable Harmful  (dependent on composition)	Liquid material creating mess/nuisance Spills can result in contamination of: - refuse collection vehicles - personnel - streets - other recyclable materials	20 01 27* paint, inks, adhesives and resins containing dangerous substances	
Brushing car paints					
Paint thinners/ brush cleaners					
Wood filler (solvent borne)	Ester/ketone solvents	Highly flammable	Liquid material creating mess/nuisance Spills can result in contamination of: - refuse collection vehicles - personnel - streets - other recyclable material	20 01 13* solvents	
Wood filler (solvent borne)	Styrene	Flammable Harmful			
Plastic bumper filler/ car body filler	Dibenzoyl peroxide	Irritant Oxidising		20 01 14*acids	

<b>HHW category: DECORATIVE PAINTS, COATINGS AND RELATED PRODUCTS</b>				
<b>Generic product group</b>	<b>Component(s) of concern</b>	<b>Hazard classification</b>	<b>Reasons for inclusion/collection</b>	<b>EWC relating to municipal waste</b>
Paint strippers (liquid)	Hydrocarbon/ketone/alcohol/ester solvents Methylene dichloride (Dichloromethane DCM) Methanol	Flammable Harmful Toxic	Liquid material creating mess/nuisance Spills can result in contamination of: - refuse collection vehicles - personnel - streets - other recyclable material	20 01 13* solvents
Paint strippers (solid/paste)	Sodium hydroxide	Corrosive		20 01 15* alkalines
Wood preservatives	Wide range of chemicals for different applications	Flammable Irritant  dependent on composition	Materials approved under Control of Pesticides Regulations 1986  or Health and Safety Executive registered products	20 01 19* pesticides

<b>HHW category: GARDEN CHEMICALS – PESTICIDES</b>				
<b>Generic product group</b>	<b>Component(s) of concern</b>	<b>Hazard classification</b>	<b>Reasons for inclusion/collection</b>	<b>EWC relating to municipal waste</b>
Algicides	Wide range of chemicals designed to kill target species	Irritant Toxic (dependent on composition)	Materials approved under Control of Pesticides Regulations 1986 (COPR) and The Plant Protection Products Regulations 2003 (PPPR)  Effects of exposure can be acute or chronic  [The use, supply, storage and advertisement of pesticides is regulated by a number of pieces of legislation including, for Great Britain, the Control of Pesticides Regulations (COPR) and The Control of Pesticides Regulations (COPR) 1986 (SI 1986/1510) and The Plant Protection Products Regulations 2003 (PPPR)]	20 01 19* pesticides
Animal deterrents				
Fungicides (disease control)				
Herbicides (weedkillers, mosskillers)				
Insecticides (insect control)				
Molluscicides (slug/snail control)				
Rodenticides (vertebrate control)				

<b>HHW category: GARDEN CHEMICALS</b>					
<b>Generic product group</b>	<b>Component(s) of concern</b>	<b>Hazard classification</b>	<b>Reasons for inclusion/collection</b>	<b>EWC relating to municipal waste</b>	
Weedkillers	Sodium chlorate	Oxidising Toxic	Segregation is essential as can represent a fire hazard Materials approved under Control of Pesticides Regulations 1986	20 01 19* pesticides	
Fertilisers	Could contain pesticides (see, Pesticides)	Irritant Toxic  (depending on pesticide content)	If weed and feed, or mosskiller - class as pesticide	20 01 19* pesticides  (if containing pesticides)	
Lawn treatments			If pesticides, materials approved under Control of Pesticides Regulations 1986		
Patio and path cleaners		See Pesticides	If pesticides, materials approved under Control of Pesticides Regulations 1986		
Pond treatments	Hydrogen peroxide Ammonia	Corrosive Harmful Irritant Toxic	Water treatments can include pesticides for the control of algae and bacteria	20 01 14* acids 20 01 19* pesticides (if contain pesticides)	

<b>HHW category: PETCARE PRODUCTS</b>					
<b>Generic product group</b>	<b>Component(s) of concern</b>	<b>Hazard classification</b>	<b>Reasons for inclusion/collection</b>	<b>EWC relating to municipal waste</b>	
Petcare products	Can contain organophosphate pesticides Can contain insecticides	Flammable Harmful Irritant	Materials approved under Control of Pesticides Regulations 1986	20 01 19* pesticides (if contain pesticides)	
Veterinary medicines	Wide range of chemicals designed for different purposes	Flammable Irritant Harmful	Materials authorised by the Veterinary Medicines Directorate	20 01 31 * cytotoxic and cytostatic medicines  20 01 32 medicines other than those mentioned in 20 01 31	

<b>HHW category: MOTORING PRODUCTS</b>					
<b>Generic product group</b>	<b>Component(s) of concern</b>	<b>Hazard classification</b>	<b>Reasons for inclusion/collection</b>	<b>EWC relating to municipal waste</b>	
Brake fluid	Polyalkylene Glycol Ethers Ether Esters	Flammable	Mess/nuisance Materials recovery Include with engine oil	16 01 13* brake fluids	
Minerals/synthetic oil	Hydrocarbons Heavy metals	Flammable		20 01 26* oil and fat other than those mentioned in 20 01 25	
Petrol Diesel	Hydrocarbons	Flammable Highly Flammable		13 07 02* petrol 13 07 01* fuel oil and diesel	
Transmission fluid	Hydrocarbons	Flammable		16 01 21* hazardous components other than those mentioned in 16 01 07 to 16 01 11	
Used engine oil	Hydrocarbons Heavy metals PCAs	Carcinogenic Flammable	Mess/nuisance Materials recovery	20 01 26* oil and fat other than those mentioned in 20 01 25	
Used oil filters	Hydrocarbons	Flammable	Materials recovery - oil and steel	16 01 07* oil filters	

<b>HHW category: MOTORING PRODUCTS</b>					
<b>Generic product group</b>	<b>Component(s) of concern</b>	<b>Hazard classification</b>	<b>Reasons for inclusion/collection</b>	<b>EWC relating to municipal waste</b>	
Antifreeze	Ethylene glycol Methanol	Flammable Toxic	Should not be allowed to enter surface water courses	16 01 14* antifreeze fluids containing dangerous substances	
Asbestos-containing brake shoes	Asbestos	Toxic Irritant	Dust generated when changing	16 01 11* brake pads containing asbestos	
Dismantling lubricant	Hydrocarbons Aerosol propellant	Flammable		16 01 21* hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14	
Driveway concrete cleaner	Acids	Corrosive		20 01 14* acids	
Engine additives (internal)	Hydrocarbons Detergents	Flammable Highly Flammable Irritant	Should not be allowed to enter surface water courses	20 01 13* solvents	
Engine cleaning degreasant (external)	Hydrocarbons Kerosene	Flammable Highly Flammable Irritant		20 01 13* solvents	

<b>HHW category: MOTORING PRODUCTS</b>				
<b>Generic product group</b>	<b>Component(s) of concern</b>	<b>Hazard classification</b>	<b>Reasons for inclusion/collection</b>	<b>EWC relating to municipal waste</b>
Lead acid batteries	Lead	Toxic	Materials recovery	20 01 33* batteries and accumulators included in 16 06 01 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries  (lead batteries)
	Lead compounds		Materials meet the requirements of the EU Battery Directive	
	Sulphuric acid	Corrosive	Materials recovery/Spill hazard	
Plastic bumper filler Car body filler	Styrene monomer Dibenzoyl peroxide	Flammable Irritant Oxidising	Activators are normally a problem	20 01 14* acids
Tyres		Not hazardous	Materials recovery Potential fire risk	16 01 03 end-of-life tyres
Wheel cleaner	Ammonia Acids Aerosol propellant Detergents	Irritant		20 01 14* acids

HHW category: HOUSEHOLD APPLIANCES				
Generic product group	Component(s) of concern	Hazard classification	Reasons for inclusion/collection	EWC relating to municipal waste
Household batteries (primary cells)	Mercury	Toxic Ecotoxic	Materials recovery Materials meet the requirements of the EU Batteries Directive	20 01 33* batteries and accumulators included in 16 06 01, 16 06 02 and 16 06 03 and unsorted batteries and accumulators containing these batteries (the majority of primary cells will not contain mercury)
Household batteries (secondary cells) Mercuric-oxide	Mercury	Toxic Ecotoxic	Expand reasons for inclusion ie non-hazardous batteries included as householders tend not to be able to differentiate different types	
Household batteries (secondary cells) Nickel-cadmium	Nickel Cadmium	Toxic Ecotoxic		
Household batteries (secondary cells) Silver-oxide	Silver	Toxic Ecotoxic	Materials recovery	20 01 34 batteries and accumulators other than those mentioned in 20 01 33
Household batteries (secondary cells) Lithium	Lithium	Flammable	Segregation desirable as potential fire risk	

<b>HHW category: HOUSEHOLD APPLIANCES</b>				
<b>Generic product group</b>	<b>Component(s) of concern</b>	<b>Hazard classification</b>	<b>Reasons for inclusion/collection</b>	<b>EWC relating to municipal waste</b>
Electrical and electronic equipment	A wide range of components, depending on the appliance including: asbestos brominated flame retardants electrolyte capacitors heavy metals PCBs	Toxic Ecotoxic	Material recovery Materials meet the requirements of the EU WEEE directive	20 01 35* discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components
Smoke alarms	Americium-241	Toxic		
Fluorescent tubes and bulbs	Mercury	Toxic		20 01 21* fluorescent tubes and other mercury-containing waste
Fire extinguishers	Halon gas	Flammable	Materials meet the requirements of the Ozone Depleting Substances Regulations	16 05 04* gases in pressure containers (including halons) containing dangerous substances
Gas bottles	Pressurised gas	Flammable	Materials recovery	
Refrigerants	Chlorofluoro -compounds and other ODS	Ecotoxic	Material recovery Materials meet the requirements of the	20 01 23* discarded equipment containing chlorofluorocarbons

				Ozone Depleting Substances Regulations Materials meet the requirements of the EU WEEE directive	
Display screen equipment containing cathode ray tubes (including LCD and plasma screen equipment)	A wide range of components, depending on the appliance, including: Heavy metals LCD substances such as MBBA (4-methoxybenzylidene-4-butylaniine) and 5CB (4-pentyl-4-cyanobiphenyl)	Toxic Ecotoxic		Material recovery Materials meet the requirements of the EU WEEE directive	20 01 35* discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components

<b>HHW category: HOUSEHOLD MATERIALS</b>					
<b>Generic product group</b>	<b>Component(s) of concern</b>	<b>Hazard classification</b>	<b>Reasons for inclusion/collection</b>	<b>EWC relating to municipal waste</b>	
Ammunition and explosive devices (ammunition, fireworks, pyrotechnics)	Explosive material	Explosive Class 1 (UN classification)	Absolutely not an option to put explosives in the dustbin	16 04 01* waste ammunition 16 04 02* fireworks waste 16 04 03* other waste explosives	
Asbestos	Asbestos	Toxic Carcinogen	Bonded asbestos only	17 06 05* construction materials containing asbestos	
Cooking oils		Not hazardous	Materials recovery	20 01 25 edible oil and fat	

				Mess/nuisance/sewerage blockages	
Photographic chemicals	Ammonia Boric acid Bromide ion Formaldehyde Hydroquinone Silver thiosulphate Sulphuric acid	Irritant Corrosive Harmful		Material recovery	20 01 17* photochemicals
Wood	copper chromated arsenate creosote	Toxic		Material recovery	20 01 37* wood containing dangerous substances

<b>HHW category: HOUSEHOLD CHEMICALS: CLINICAL WASTE</b>					
Generic product group	Component(s) of concern	Hazard classification	Reasons for inclusion/collection	EWC relating to municipal waste	
Household clinical waste		Ecotoxic Flammable Harmful Toxic	As defined in regulation 1(2) of The Controlled Waste Regulations 1992 (SI 192/588) under category (a)  'Any waste which consists wholly or partly of human or animal tissues, blood, other body fluids, excretions, drugs or other pharmaceutical products, swabs or dressings, or syringes, needles or other sharp instruments, being waste which	The only municipal classification is:  20 01 31* cytotoxic and cytostatic medicines  Other potential non-municipal EWCs:	

				unless rendered safe may prove hazardous to any person coming into contact with it'	18 01 01 sharps (except 18 01 03) 18 01 03* wastes whose collection and disposal is subject to special requirements in order to prevent infection 18 01 06* chemicals consisting of or containing dangerous substances
				and all categories except (c) of the HSC/HSAC publication 'Safe Disposal of Clinical Waste as defined in Waste Management Paper 25	

<b>HHW category: HOUSEHOLD CHEMICALS: CLEANERS</b>					
<b>Generic product group</b>	<b>Component(s) of concern</b>	<b>Hazard classification</b>	<b>Reasons for inclusion/collection</b>	<b>EWC relating to municipal waste</b>	
Glass cleaners	Ethylene diamine tetra-acetic acid	Flammable	As many cleaners are reactive, they should not be mixed	20 01 29*detergents containing dangerous substances	
	Surfactant	Irritant			
	White spirit				
Oven cleaners	Caustic soda	Corrosive			
	Phosphates	Irritant			
	Polycarboxylates	Toxic			
Scouring/all purpose cleaners	EDTA	Corrosive			
	Phosphates	Irritant			
	Sodium hypochlorite	Oxidiser			

	Surfactants			
Stain removers	Phosphates Sodium hydrosulphite Surfactants	Irritant Flammable Oxidising		
Bleaches	Chlorine Hydrogen peroxide Sodium hydroxide Sodium hypochlorite	Corrosive Irritant Toxic		20 01 15* alkalines

#### HHW category: HOUSEHOLD CHEMICALS: CLEANERS

Generic product group	Component(s) of concern	Hazard classification	Reasons for inclusion/collection	EWC relating to municipal waste
Disinfectants Acids	Acetic Benzoic Formic Hydrochloric Lactic Nitric acid Phosphoric Sulphuric	Corrosive Irritant	As many cleaners are reactive, they should not be mixed	20 01 29*detergents containing dangerous substances

Alcohols	Chlorinated phenols Ethanol Isopropyl alcohol	Flammable		
Aldehydes	Formaldehyde Acetaldehyde	Toxic Irritant		
Peroxygen disinfectants	Hydrogen peroxide QACs (quaternary ammonium compounds)	Harmful Irritant		