

KEY ELEMENTS OF RELEVANT LEGISLATION

Landfill Regulations

- Re-classification of landfill sites;
- End of co-disposal (mixing of wastes);
- Requirement of pre-treatment; and
- Liquid and certain hazardous wastes banned.

Hazardous Waste Regulations

- Replacing Special Waste Regulations 1996;
- Incorporating revised Hazardous Waste List;
- To implement procedures for control and monitoring movements of hazardous waste.

Duty of Care Regulations

- Proper storage of waste;
- Descriptions of content, volumes, numbers and corresponding labelling of containers;
- Checking of licences and destinations;
- Documentation: transfer/consignment notes.

European Waste Catalogue with new hazardous wastes that may also be covered by WEEE:

- Fluorescent tubes;
- CRT's cathode ray tubes (tv's and computers);
- Certain batteries.

ELV Regulations

- Regulations apply to sites used for the storage and treatment of ELVs;
- Operators to apply for site licence if accepting vehicles that have not been de-polluted;
- Minimum technical standards for all sites.

WEEE Directive

- Separation of WEEE from the municipal waste;
- Average of 4kg WEEE collected per inhabitant;
- Return (take-back) equipment free of charge;
- 50% -75% recycling target by product weight;
- Producers pay for treatment of their products;
- Producers to provide information on re-use, disassembly, maintenance and used hazardous materials content of products.

RoHS Directive

- From 1 July 2006 new electrical and electronic equipment must not contain lead, mercury, cadmium, hexavalent chromium and flame retardants polybrominated biphenyls (PBBs) or polybrominated diphenyl ethers (PBDEs).

LEGISLATION AND REGULATIONS RELEVANT TO ELECTRICAL AND ELECTRONIC WASTE

- **Duty of Care Regulations (EPA 1990 Section 34) (Issue 2 of Series 1)**
- **Hazardous Waste Regulations and the European Waste Catalogue - EWC (including the Hazardous Waste List) (Due 2005) (Issue 3 of Series 1)**
- **Landfill (England and Wales) Regulations 2002**
- **Waste Electrical and Electronic Equipment Directive 2002 (WEEE)**
- **Restriction of Hazardous Substances in Electrical and Electronic Equipment (ROHS) Directive 2002**
- **End of Life Vehicles Regulations 2003 (ELV)**
- **End of Life Vehicles (Producer Responsibility) Regulation 2004**

SOURCES OF INFORMATION

Environment Agency Wales REGULATOR AND LICENSING

www.environment-agency.gov.uk

NetRegs legislation explained

www.environment-agency.gov.uk/netregs

Waste Resources Action Plan

www.wrap.org.uk

Envirowise - (free) environmental advice

www.envirowise.gov.uk

FSB - Federation of small businesses

www.fsb.org.uk

DTI - Department of Trade and Industry

www.dti.gov.uk

N.B. BRASS is not responsible for the content of external internet sites

Each week a different sector of industry or waste type will be discussed in these briefing notes, which can be downloaded from the website below.

N.B.: These notes are merely a guidance and should not be considered as advice from any of the parties contained within this leaflet.

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MANAGING ELECTRICAL AND ELECTRONIC WASTE



In this third and final series of business briefing notes, published by the BRASS Centre, attention is focussed on specific types of waste. General issues concerning the management of specific types of waste are addressed and some basic guidance is provided. Issue 3 of Series 3 highlights the management of electrical and electronic waste. Implementation of the Waste Electrical and Electronic Equipment Directive, the Hazardous Waste Regulations and European Waste Catalogue (EWC) will have a major impact on how we deal with this kind of waste. This leaflet seeks to provide some information based on data gathered from the National Waste Survey 2003-2004.

Biffaward
Investing in the environment

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ELECTRICAL AND ELECTRONIC WASTE

In the UK we generate between 900,000 and 950,000 tonnes (and rising) of electrical and electronic equipment (EEE) waste each year. This could almost double by the year 2015. From computers (14%) to washing machines (white goods 30%), from mobiles to fridge-freezers, this waste is produced at domestic and commercial sources. *Proper management of EEE waste is a complicated matter; there are lots of new legislation involved (see below) and a number of these still have to be implemented in the UK (e.g. WEEE mid 2005), when it is, it is likely to result in a number of test cases.*

There are two EEE waste groups at the moment:

- Post consumer end-of-life EEE waste which is covered by The Waste Electrical and Electronic Equipment (WEEE) Directive; and
- Other electric and electronic (EE) waste, possibly not covered by WEEE, subdivided in:
 - WEEE exempt waste (see list below);
 - Electrical/electronic waste from manufacturing and/or processing;
 - Electrical/electronic waste from End-of-life vehicles (covered by ELV directive); and
 - Electrical/electronic waste from servicing and repair activities.

COMMERCIAL (AND DOMESTIC) WEEE WASTE

The WEEE Directive aims to increase recovery, recycling and re-use of WEEE – to reduce the amount going to landfill. It will be implemented in the UK in 2005. In 2005 the Hazardous Waste Regulations (HWR) will change the definition of hazardous waste to include the newly hazardous wastes. From then on fluorescent tubes and cathode ray tubes (CRT) as well as being covered by WEEE, will be classed as hazardous. Finally, the RoHS Directive finally bans the use of certain substances in equipment sold from July.

WEEE DIRECTIVE - WHY, WHO AND WHAT?

Most EEE contains hazardous substances. Their production costs a lot of energy. Environmental impacts need to be minimised. Another reason why WEEE is an important waste stream is because the manufacturing of EEE is a growing industry sector. Waste output and resource loss is growing at a similar rate and may result in another 'fridge mountain'. Every company involved in design, manufacture, distribution, retail, collection and treatment of WEEE, will have to comply with the legislation.

WEEE AND ROHS DIRECTIVES Together will:

- Affect producers, sellers, users and recyclers of electrical/electronic equipment
- Re-direct WEEE from going to landfill;
- Limit WEEE production by re-use, repair, refurbishment, recovery and recycling;
- Improve the environmental performance of all operators involved in the EEE life span chain;
- Restrict and/or ban the use of various hazardous substances (RoHS);
- Encourage re-use, refurbishment, repair; and
- Encourage clean design.

ITEMS COVERED BY THE WEEE DIRECTIVE are:

- Large domestic appliances;
- Small domestic appliances;
- IT and telecom equipment;
- Audiovisual equipment;
- Lighting equipment;
- Electrical and electronic tools;
- Toys, leisure and sports ;
- Medical devices;
- Monitoring and control equipment;
- Automatic dispensers (vending machines).



WEEE REGULATIONS AND END USERS

If you are an end-user of a product covered by WEEE you might benefit from the regulations. Retailers or wholesalers are obliged to take back WEEE in like-for-like sales, if the replaced item was purchased before 13th Aug 2005 (if you buy or have bought a fluorescent tube before that date your supplier has to take it back or finance the cost of collection, treatment and disposal).



OTHER ELECTRICAL AND ELECTRONIC WASTE

Apart from waste that is covered by the WEEE Directive there is quite a lot of electric and electronic waste that is not covered by these regulations. Some of this waste is covered by other legislation (Hazardous Waste Regulations, ELV Directive). Then there is EEE waste that is only covered by the Duty-of-Care. It is up to the producers how to deal with this waste. Do we send it to landfill? Possibly very expensive. Is it hazardous? If yes, than it has to be treated and will be even more expensive. Can we minimise this waste? Hopefully. It will save money and benefit the environment.

OTHER ELECTRICAL AND ELECTRONIC WASTE

1 WEEE exempt: Components or sub-assemblies (for the now see Part III Draft WEEE DTI Guidance); luminaires - **domestic** light fittings; appliances of 1000V AC or 1500V DC or more; equipment to protect national interest and military equipment; filament bulbs, large industrial tools or machines and medical implants or infected devices.

2 Process waste from manufacturing of EEE: Off specification products or components, damaged products, process waste from manufacturing. Waste items in this group are tested and failed assembled products or components, i.e. telephones, crt's, lcd's printed circuit boards, switches gear, any EE product or component unsuitable for sale or use.

3 Waste from ELV processing: Every car contains several EE pieces of equipment. Think of fuel injection systems, transformers, electric (starter) motors, alternators, batteries. This waste is covered by the ELV Directive which fulfils a similar function as the WEEE Directive.

4 Wastes from service and repair activities: Replaced and/or faulty components, e.g. CH pumps, electro motors, computer drives, car electrics and electronics at garages.

MANAGING EEE WASTE Prevent waste from going to landfill. It's expensive and not good for the environment. The best way to do this is to **minimise**, i.e. not produce it in the first place or to **re-use**, by:

- Increased process and resource control
- Re-manufacturing
- Use components of better quality/longer life
- Re-use of electrical and electronic car parts

If these alternatives are not a viable option then **recycling** would be the next thing to consider:

- Sell or give EE waste to recycler, for
- Precious and other metal-recovery; and
- Parts recovery (taking out good working parts before final disposal). Buy the good bits back

After minimisation, re-use and recycling the only waste management option left is final disposal to **landfill or incinerator**. Due to its' (mainly metals) nature there will be partial energy recovery potential only, resources will be lost.