

The building environment you work in

Construction generates 3 tonnes of waste for every person in the country and produces 24% of all waste arising - 13 million tonnes are unused building products.

Timber is a renewable building material and the northern hemisphere forest area is increasing at a faster rate than it is used. Up to 7.5 million tonnes of wood waste go to landfill in UK. A sheet of ply takes 24 times more energy to travel here from Indonesia than from Sweden.

Carpenter

ENVIRONMENTAL INFO SHEET



Construction waste - the key facts

Waste is 'any substance or object that the holder discards, or intends to discard'.

You have a **Duty of Care** to know what is in your waste, that the person you are giving it to is licensed to carry it and that it is disposed of in a licensed site.

- **SUB-CONTRACTORS** - who give waste to a main contractor, are still responsible for those wastes under the Duty of Care.
- **MOVING WASTE** - if you transport your own waste, you need to be registered as a waste carrier with your Environmental Regulator.
- **HAZARDOUS WASTE** - most building sites need to be registered if they produce hazardous waste.

Types of waste

There are three main types of construction waste distinguished by their environmental impact. Each is sent to a different type of landfill site.

Inert waste - includes set concrete, bricks, glass, tiles, sub-soil (but not topsoil).

Non-hazardous waste - includes untreated timber, tanalised timber, sheet timber, ironmongery, packaging, insulation, empty tins and tubes, lath and plaster, PVA, water-based glues, paints and mastics.

Plasterboard waste has disposal problems because when mixed with other biodegradable wastes (like food) it can produce hydrogen sulphide, a major part of acid rain. If no more than 10% of a load, it can be mixed with other wastes. At greater levels, it needs to be segregated and either recycled or sent to landfill mono cells that do not take biodegradable wastes.

Hazardous waste - includes solvent-based paint, resins, coal tar products (eg some roofing felts), solvent-based mastics and glues, asbestos, forms of preservative-treated timber (eg creosote), resin-based flooring, sealants.

On some sites, waste is segregated into different skips so it can be easily recycled.

There are now standard colour-coded signs as follows:

Wood - green; Metal - blue; Gypsum - white; Inert - grey; Packaging - brown; Hazardous - orange.

Special problems for carpenters

Construction timber comes in a large variety of forms, with very differing environmental impacts. Natural timber is very sustainable (it can easily be re-used and recycled) but, often, not very durable (so we treat it with preservatives) or stable (we bond it with formaldehyde and isocyanate glues to make sheet and laminate materials). Chemicals and glues add dramatically to the environmental impact of such products. While they do not prevent re-use, they make recycling more difficult as the wood is not 'clean'.

Knowing where your timber comes from helps you to understand its environmental impact. Transport is a major cost and user of resources. The Forestry Stewardship Council (FSC) scheme certifies that timber (both softwood and hardwood) comes from sustainable forests and not from the depletion of tropical rainforests.

Carpenter

ENVIRONMENTAL INFO SHEET



Things you can do

We are all aiming for the best practical environmental option - a balance between getting the job done well and considering the environmental impact. Using the best environmental option can also save you money.

You should:

- Know about the types and sources of timber.
- Know about hazardous waste and if your site is a registered producer.
- Use your materials and keep off-cuts for re-use.
- Use mechanical fixings where possible.
- Segregate your waste.
- Pack skips well - a skip is up to 70% air.
- Aim to reduce packaging waste - at the end of a job, up to 35% of waste is packaging.
- Make sure pallets are sent back to the manufacturer.
- Use FSC timber.
- Use fewer composite boards.
- Be aware that dry and wet rot and many boring insects only occur in damp timber - cure the damp and you have cured much of the problem.
- Be aware that insulation reduces the energy needed to warm and cool buildings, and so has a direct impact on global warming.

Insulation delivered to site should never be thrown away.

Coming your way soon

The law on environmental issues is constantly changing. Some initiatives you should know about are:

WEEE - Waste Electrical and Electronic Equipment Regulations affect all forms of electrical equipment, from mobile phones to battery power tools. These will be classified as hazardous waste and need to be deconstructed before disposal.

Batteries Directive - on the use and disposal of batteries.

Part L of the Building Regulations will set new standards for the conservation of heat and power in buildings.

Site waste management plans - do you have one?

Landfill Directive regulates the types of waste that can be sent to landfill and sets pretreatment targets.

Like to know some more?

The **waste hierarchy** defines a number of methods of waste disposal from least to most harmful to the environment. The order is **reduce, re-use, recycle, landfill**.

Landfill tax is paid to HM Revenue and Customs for each tonne of waste sent to landfill. The rate is reviewed annually. Inert waste has stayed at £2.00 per tonne. Non-hazardous

waste is £21.00 per tonne and will rise to a target of £35.00 per tonne.

European waste codes (EWC) are standard codes for all types of waste based on their source. In construction, they begin with 17. Examples are 17 01 01 concrete and 17 02 01 wood. If a code has an asterisk against it, this refers to the hazardous nature of the waste.

Waste transfer notes are a form that should be filled in and accompany any load of waste leaving site (listing the EWC).

Want some help?

Website lists sources of recycled building products:

www.recycledproducts.org.uk

Type in your postcode and the website will detail local waste handling, recycling and re-use companies and organisations:

www.bremap.co.uk/bremap/search.jsp

Colour-coded skips:

www.wascot.org.uk/construction/colour.asp

Sources of FSC timber:

www.greenspec.co.uk/html/design/materials/FSCtimbermerchants.html

Details on recycling:

www.wrap.org.uk

Legal obligations with respect to waste management:

www.netregs.gov.uk

Hazardous waste:

www.environment-agency.gov.uk

www.envirowise.gov.uk/construction



Harwell International Business Centre | Didcot | Oxfordshire | OX11 0QJ
E-mail: helpline@envirowise.gov.uk Internet: www.envirowise.gov.uk

Envirowise - Practical Environmental Advice for Business - is a Government programme that offers free, independent and practical advice to UK businesses to reduce waste at source and increase profits. It is managed by Momenta, an operating division of AEA Technology plc, and Serco TTI.



EN610R © Crown copyright. First printed November 2006. Revised May 2007. Printed on paper containing 80% recycled post-consumer fibre. This material may be freely reproduced in its original form except for sale or advertising purposes.

For further information please contact the

**Environment
and Energy
Helpline
0800 585794**