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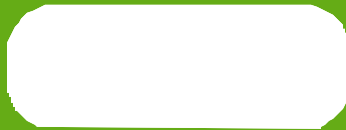
sharing knowledge
building best practice

The Essential Green guide



Get it right, bank the profits

**FOR PROFESSIONAL BUILDERS AND
TRADESMEN**



CONTENTS

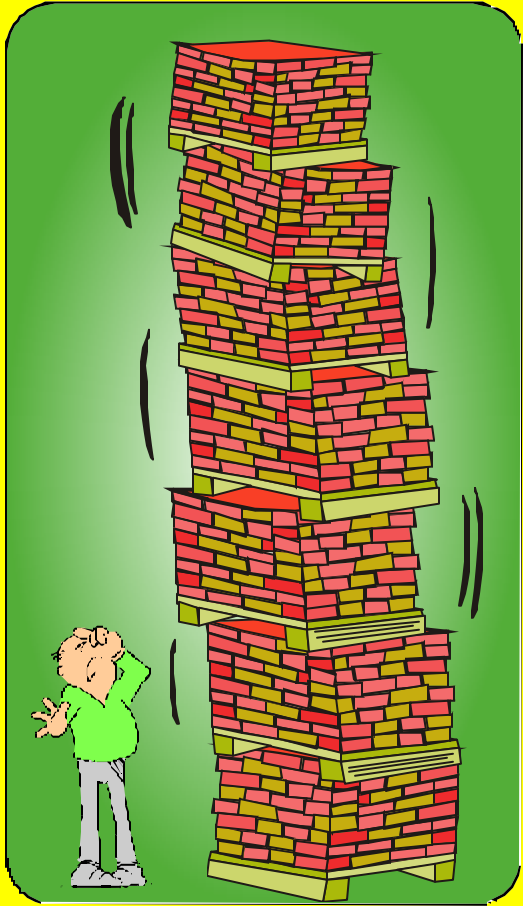
Introduction	1
Buying and storing materials	2-7
Managing waste	8-13
Managing water	14-19
Preventing pollution	20-25
Considering neighbours	26-31
Further information	32-33

*Managing these issues is not only common sense,
but could also improve your performance and save
you money ... this guide shows you how.*

The ***Essential Green Guide*** is for professional builders and tradesmen to show how working in a “greener” way can help make money and reduce costs. This guide includes:

- good practice checklists
- summaries of relevant legislation
- where to find further information.

Getting it right not only reduces the risk of prosecution, but also saves money.



Buying and storing materials

Did you know that 50% of the cost of a building is spent on materials!

Incorrect storage of materials can lead to increased:

- *damage and associated costs*
- *risk of injury*
- *chances of pollution*
- *waste*
- *likelihood of theft.*

Costs

To save money and decrease risk:

- *order the correct amount of materials*
- *do not accept poor quality deliveries*
- *make sure storage areas are safe and secure*
- *handle materials carefully.*

A builder ordered sand in 1 tonne bags, rather than loose. The builder worked out that by the time the sand was moved around the site he would reduce waste and save money despite the bagged sand costing more in the first place.

Good practice on site

When **ordering** materials, consider:

- *timber from legal and well managed sources*
- *paints with low odour and VOC emissions*
- *how much of each material is needed*
- *when and where materials are required*
- *asking suppliers to minimise packaging.*



Be prepared for **deliveries**:

- *know when deliveries are coming*
- *reject deliveries if incomplete or damaged*
- *have appropriate storage areas ready*
- *know whether special handling is required.*



When **storing** materials always remember to:

- *follow suppliers' storage instructions*
- *keep harmful chemicals in secure areas*
- *protect lightweight materials from wind*
- *store liquids and sand away from drains*
- *secure the site to avoid theft and vandalism.*



Staying on the right side of the law

To help avoid prosecution ensure that:

- *storage areas are clearly marked and kept secure at all times*
- *materials are stored and used in accordance with manufacturers' guidelines*
- *hazardous materials are stored and used according to details on COSHH datasheets.*

A two-year-old boy was crushed to death when chipboard stacked against a garage door fell on him. The tradesman was found to be responsible and was successfully prosecuted.

Following vandalism of an oil tank, a builder received a £4,000 fine for polluting a stream in Oxford.

Where to find out more

Waste & Resources Action Programme (WRAP)

0808 100 2040, www.wrap.org.uk

Information on various material types with links to buying recycled products.

NetRegs

www.netregs.gov.uk

Practical guidance on environmental legislation relevant to builders and professional tradesmen

CIRIA

020 7549 3300, www.ciria.org

Guidance on managing materials and components on site (SPI46).

Your local builders' merchant

Every year the construction industry produces approximately 5 tonnes of waste for every person living in the UK.

Notes



Managing Waste

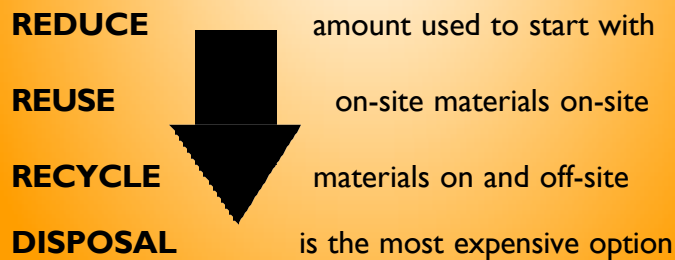
In the UK an average of 13% of all materials delivered to site go into the skip without ever being used. Do you know **your** waste costs?

You are responsible for waste on your site and for its correct disposal. Time and money can be saved by:

- *improving the way you work*
- *avoiding prosecution.*

Costs

It is becoming increasingly **expensive** to dispose of waste, so always remember:



The average 8 cubic yard skip costs around £120 . The average cost of what's being thrown away is over £900.

Good practice on site

The amount of waste generated can be **reduced** by:

- *arranging just in time deliveries*
- *rejecting deliveries if damaged or incomplete*
- *handling materials carefully*
- *re-using materials where possible on site or on other jobs.*



Store waste correctly by:

- *segregating different types of waste as they are generated*
- *using suitably labelled containers.*



Dispose of waste correctly by checking that:

- *all staff are aware of how waste should be disposed of*
- *licensed waste collectors and disposal sites are used*
- *notifications for hazardous waste have been completed.*



A construction company was fined a total of £2,250 after admitting burning waste illegally.

Landfill tax has increased by 750% in the last 8 years!
It is set to more than double again by 2011.

Staying on the right side of the law

To help avoid prosecution, ensure that:

- *Waste transfer notes are completed before any waste leaves the site*
- *All companies carrying your waste have a valid waste carriers registration certificate*
- *All wastes are disposed of at a correctly licensed site*
- *The Environment Agency is given at least three working days notice prior to any movement of hazardous waste.*

A paper trail from fly-tipped waste led Environment Agency officers to a small builder. He was found guilty of fly-tipping and received two suspended prison sentences. He was also fined.

A small developer was fined over £57,000 for allowing asbestos and tyres to be dumped on land.

Where to find out more

Environment Agency (England and Wales)
0845 9333 111, www.environment-agency.gov.uk

Scottish Environment Protection Agency
0800 389 5270, www.sepa.org.uk

Environmental and Heritage Service Northern Ireland
02890 546 725, www.ehsni.gov.uk

Envirowise
0800 585 794, www.envirowise.org.uk
Free advice and free on-site waste review.

Waste & Resources Action Programme (WRAP)
0808 100 2040, www.wrap.org.uk
Information on recycling materials.

CIRIA
www.ciria.org/recycling
A free list of recycling sites located near your site, and guidance on waste minimisation in construction (SPI33)

Notes



Managing water

Every year, the construction industry is prosecuted for more than 500 water pollution incidents.

It is your responsibility to manage water, and by using common-sense you will reduce:

- *costs*
- *pollution incidents*
- *risk of fines and/or imprisonment.*

Costs

By following the checklist overleaf you can save money by:

- *not causing pollution through negligence*
- *reducing amount of water used*
- *re-using water whenever practical to do so*
- *storing water for future use.*

9 litres of water can be wasted every minute from a leaking hosepipe. That means 540 litres are wasted every hour!

Good practice on site

Before starting work **always** identify the location of:



- *local rivers and streams*
- *surface water drains (leading to rivers, etc)*
- *foul water drains (leading to sewers)*
- *absorbent materials to deal with spillages.*

Site workers should be made aware of:



- *the pollution problems resulting from washing paints, chemicals, mud, sand, or other pollutants into drains*
- *the problems associated with connecting foul water pipes with surface water drains*
- *what to do if a spillage occurs*
- *who to contact if a spillage occurs.*

Reduce the amount of water wasted by ensuring taps and hoses:



- *do not leak*
- *are not left running unnecessarily.*



Only clean, uncontaminated rain water is allowed to flow off-site.

Staying on the right side of the law

You can reduce the risk of prosecution by ensuring that you:

- *obtain permission from the relevant environment agency before discharging anything to surface water drains or rivers*
- *obtain permission from the relevant water company before discharging anything into the foul water sewer*
- *are aware of correct connections of foul water pipes into foul water sewers*
- *are aware that the relevant environment agency must be informed if hazardous substances are spilt into drains.*

A contractor was fined £7,000 for polluting Stocklough Beck with 22 gallons of diesel, which had escaped from a generator left unattended during refuelling.

Where to find out more

CIRIA

020 7549 3300, www.ciria.org/water

Guidance on surface water and drainage, water supply and sewerage.

Environment Agency – Savewater

0845 9333 111, www.environment-agency.gov.uk

Guidance on water efficiency and conservation, top tips for saving water.

Office of Water Services (Ofwat)

0121 625 1300, www.ofwat.gov.uk

Regulator of England and Wales, listing contact details of water companies.

Your waste disposal company

Can provide details of how to dispose of chemicals and solvents.

Notes



Preventing pollution

Spillages can easily be noticed. A spilt gallon of oil can completely cover a lake the size of two football pitches!

You are responsible for preventing pollution, and by using common-sense you can reduce:

- *harm to surrounding area*
- *chances of prosecution*
- *bad publicity and likely loss of customers*
- *delays to your project.*

Costs

Pollution, whether accidental or deliberate, will cost you money, so remember to:

- *reduce the use of potentially harmful products*
- *make sure the site is secure*
- *know what to do if you have a spill*
- *have a spill kit on site.*

Using drain covers avoided pollution, and a costly fine, when a builder split a drum of oil by reversing into it.

Good practice on site

Prevent spillages on-site by storing materials:

- *as recommended by manufacturers*
- *away from drains and watercourses*
- *only until the end of shelf-life*
- *away from extremes of temperature.*



In the event of a **spillage**:

- *stop work **immediately***
- *contain the spillage if safe to do so*
- *notify the appropriate environment agency (EA/SEPA) and/or Fire Brigade.*



Following a spillage:

- *work out how and why it happened*
- *alter site practices to prevent it happening again*
- *ensure **all** site workers are aware of what to do*
- *regularly monitor and maintain storage containers.*



Spilling 1 litre of solvents can make 1 million litres of water undrinkable! The polluter is responsible for cleanup costs.

Staying on the right side of the law

Causing pollution is a criminal offence, so you should remember that:

- the relevant **environment agency** must be informed of any harmful pollution incident
- failure to comply with a Local Authority notice to clean up pollution is an offence
- the **environment agencies** can stop work on your site where there is a risk of pollution.
- prior agreement is required if you wish to dispose of liquids to surface water drains or sewers
- fuel and oil tanks/drums must be contained in a bund.

A tradesman was found guilty of causing pollution after vandals removed a tap from an oil storage tank. Magistrates said the site had poor security and imposed a fine, plus costs totalling £18 000.

A major house builder was ordered to clear 270 lorry-loads of waste that had been illegally dumped on farmland. The fine imposed depended on the success of the clean up.

Where to find out more

Environment agencies (EA/SEPA/EHS)

Emergency hotline 0800 80 70 60

This should be used in the event of any pollution problem.

Fire Brigade/Ambulance

999

CIRIA

www.ciria.org

Guidance on control of water pollution from construction sites (C532)

Notes



Considering neighbours

The Local Authority can stop you working if you are found to be making too much noise or causing other nuisance.

It is your responsibility to minimise nuisance in the vicinity of your site by reducing:

- noise
- vibration
- dust and emissions
- odours.

Costs

Considering these issues when working on site can save you money and avoid delays:

- reduce dust, emissions and odours
- inform neighbours of likely noise in advance
- use mufflers on noisy equipment
- use electric generators instead of diesel/petrol.

To reduce disturbance when working in a residential area, a contractor placed straw bales at a safe distance around a generator to screen the noise created.

Good practice on site

Reduce the impact of noise and vibration by:

- *erecting a solid screen close to the source of noise*
- *informing neighbours of time and duration of noisy activities, and why they are being conducted*
- *minimising vibration produced by machinery.*



Prevent unnecessary emissions and odours by:

- *keeping plant regularly serviced*
- *switching engines off when not in use*
- *storing fuels and chemicals appropriately*
- *keep refuelling areas well away from the public.*



Avoid dust being generated by:

- *keeping the site clean and tidy*
- *protecting sands and soils from the wind by covering with a tarpaulin.*



Staying on the right side of the law

There is a great deal of legislation covering these issues, and you should remember that:

- noise in residential areas should not exceed permitted levels during working hours
- the Local Authority can stop your work if they decide you are causing a nuisance
- equipment should only be used as recommended by the manufacturer.

A housing contractor was fined £1,000 following complaints by local residents about noise, where work started at 6.30 each morning.

A builder was fined £8,500 for carrying dusty material in uncovered containers on a public road.

Where to find out more

Local Council – Environmental Health Officer

Contact for advice on noise and dust issues

Considerate Constructors Scheme

www.considerateconstructorsscheme.org.uk

A voluntary code of practice, driven by the industry covering a wide range of activities carried out on-site.

CIRIA

www.ciria.org

Guidance on assessing and managing noise on construction sites (PR70).

Notes

Further Information

Further information is available from:

CIRIA

020 7549 3300, www.ciria.org

A leading provider of information for the construction industry. Guidance is available on all issues including waste and water management.

UK Environmental Regulators

Providing information and advice on air, land and water in terms of legislation and practical assistance

Environment Agency

0845 9333 111, www.environment-agency.gov.uk

Scottish Environment Protection Agency

0800 389 5270, www.sepa.org.uk

Environment and Heritage Service Northern Ireland

02890 546 725, www.ehsni.gov.uk

**Waste and Resources Action Programme
(WRAP)**

0808 100 2040 www.wrap.org.uk

Details on markets for recycled materials, and work across material streams in terms of financial mechanisms, procurement and standards.

NetRegs

www.netregs.gov.uk

Practical guidance on environmental legislation relevant to builders and professional tradesmen from all the UK Environmental Regulators (Environment Agency, Scottish Environment Protection Agency and Environment and Heritage Service Northern Ireland).

Disclaimer

"This publication has been designed to provide accurate information in regard to the subject matter covered. Every effort has been made to ensure the accuracy and completeness of the publication, but no warranty is provided or implied, and the authors and publisher shall have neither liability nor responsibility to any person or entity with respect to any loss or damage arising from its use".

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Department of Trade and Industry



sharing knowledge
building best practice

Notes

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