

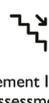
Soils Limited Guide to Site Waste Management:

There are a number of aspects to waste management on development sites. The first problem is recognition of material that may have to go to waste – its correct description and classification – then a plan must be formulated for the minimisation and management of wastes. These processes are now the subject of legislation and guidance. We are now subject to EC rules regarding the correct way to test and classify waste – *comprising basic characterisation and waste acceptance testing*.

- Wastes arising on site must be assigned the correct **European Waste Code (EWC)**. For example, the mixed contaminated soils typically arising on previously used land might be coded 17 (for construction waste), 05 (for soil), and 03 (may contain dangerous substances) – i.e. EWC 17 05 03.
- A Hazard Assessment must then be carried out. For the example code given this is simple in the sense that for this code one must assume ALL hazards are possible.

These are:

- Hazard H1: Explosive Hazard
 - H2: Oxidising Hazard
 - H3: Flammable Hazards
 - H4/H8: Irritant and Corrosive Hazards
 - H5/H6: Harmful and Toxic Hazard
 - H7: Carcinogenic Hazard
 - H9: Infectious Hazard H10: Toxic for Reproduction Hazard
 - H11: Mutagenic Hazard
 - H12: Produces Toxic Gases Hazard
 - H13: Produces Other Toxins after Disposal Hazard
 - H14: Ecotoxicity
- For each hazard which may be present a **Quantitative Risk Assessment** is required. This first requires detailed chemical data on the prospective waste – site investigation data alone is usually not adequate. It also requires an understanding of



the likely source(s) of the contaminants present, since the chemical form of an element may dramatically effect its toxicity.

- Calculated risks from each chemical present are then summed for each hazard code and compared with maximum allowable concentrations for each, and if any are exceeded then the waste is deemed hazardous.
 - For hazardous wastes it is then necessary to take further samples and submit these to the laboratory for **waste acceptance criteria (WAC)** testing.
 - Only then will it be possible to decide which soils can be re-used on site or must go off-site, and whether the latter can go to inert landfill or must go to hazardous landfill.
- As from April 2008 all the above forms just part of the **Site Waste Management Plan (SWMP)**. SWMPs must now be done on all projects worth over £300,000, and are highly recommended for all sites. These must detail:

- Who will be responsible for resource management
- What types of waste will be generated (see above)
- How each waste will be managed – will it be reduced, reused or recycled?
- Which contractors will be used to ensure the waste is correctly recycled, treated or disposed of responsibly and legally
- How the quantity of each waste generated from the project will be measured

