

Presentation – Waste not Want not

Zoe Perrins, Key Account Manager, Reconomy Ltd.

Zoe described Reconomy’s operation as having “No Skip Vehicles or Waste Transfer Stations”, because they outsourced all the services to Contractors on an approved list.

Going to talk about the basic principles, she said that it was important that waste is considered at the **very early stages** of any project to encourage good environmental practice, minimise waste and develop environmental management systems. This will lead to cost savings and cost control. The key issues need to be discussed at pre-start meetings. The following needs to be implemented or considered: -



Zoe Perrins

- Site Hazardous Waste Registration
- Positioning of Waste Compound or designated skip positions
- Available space for Inert stock piling
- Vehicle access – needs to be swift to avoid site congestion and interruptions
- Correct number of tipping skips
- Signage and other visual aids
- Waste segregation reduces the cost of disposal
- Diverts waste from landfill and increases environmental performance
- Waste sent to local transfer/recycling centre reducing the amount going to Landfill
- Waste is then recycled where possible and turned back in to a raw material

The average weight in a skip is 3 tonnes and Zoe commented that the landfill charges for unsegregated waste were due to rise by £8 per tonne in April. At the same time, the charges for segregated waste were reducing, giving a further incentive to segregate.



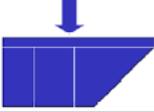
A well-segregated site

A list of typical on site segregation categories might be as follows

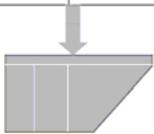
- Light Compactable
- Wood
- Inert
- Soils
- Hardcore
- Green waste

- Mixed Waste
- Plasterboard (construction)

There are many other waste streams available, according to the specific needs of individual sites. The Site Waste Management Plan will determine actual waste segregation categories, as shown below: -

Type of skip:	Colour coding:	Waste type:
Mini	Blue	Compactable
Light Active Waste		
Lightweight active waste includes: -		
Paper	Polythene Shrink Wrap	
Cardboard	Polystyrene	
Any Plastic off cuts <small>Less than 600 mm in length</small>	Insulation	
Wood off cuts <small>Less than 600 mm in length</small>	Any material packaging	
Metal banding /straps		
		
Ready for transfer to: FEL or REL		
<small>Weight limit for REL is 1 tonne; Weight limit for FEL is 0.5 tonnes</small>		
<small>Sites should utilise REL/FELs wherever possible</small>		

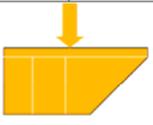
European Waste Catalogue Code: 20-03-01

Type of skip:	Colour coding:	Waste type:
Mini	Green	Non compactable Inert waste only
Inert / Clean		
Inert/Clean waste includes: -		
Broken Bricks	Hardcore/Soil	
Broken Blocks <small>see Calson Blocks</small>	Broken Clay Pipes	
Broken Kerbs	Concrete/Demolition Waste	
Broken Paving	Broken Roof Tiles	
		
Ready for transfer to: Builders skips for removal to licensed site or stockpile for recycling on site		
<small>Wherever it is practical to do so this material should be crushed and re-used under such as driveways and paths</small>		

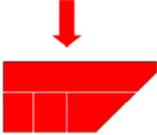
European Waste Catalogue Code: 17-01-07

Type of container:	Colour coding:	Waste type:
Plasterboard Bag	Green	Plasterboard off cuts only
Plasterboard		
		

European Waste Catalogue Code: 17-08-02

Type of Skip:	Colour coding:	Waste type:
	Green	Non compactable timber waste only
Wood Waste		
Inert/Clean waste includes: -		
Timber off cuts	Timber Lengths	
Pallets	Trusses	
Rafters	Joists	
		
Ready for transfer to: Containers / vehicle for removal to licensed / exempted recycling facility		
1. Minimal amounts of MDF or Chipboard		
2. Advise Reconomy Solutions of type and estimated quantities of wood for either removal or recycling via container or method of transportation		

European Waste Catalogue Code: 17-02-01

Type of container: Mini	Colour coding: Red	Waste type: Non Compactable Waste only
Active		
Active/ Non compactable waste Includes		
MDF & Chipboard <i>Greater than 600 mm in length</i>	Copper & Plastic pipework <i>Separate copper for recycling with large quantities</i>	
Steel <i>Separate for recycling for large quantities</i>	Electrical waste	
Damaged kitchen units	Damaged worktops <i>Greater than 600 mm in length</i>	
Fencing waste	Broken Sanitary ware	
		
Ready for transfer to: Builders skips for removal to licensed site		

European Waste Catalogue Code: 17-09-04

Type of container: Drum	Colour coding: Purple	Waste type: Hazardous  
Hazardous Waste		
Hazardous waste Includes		
Mastic Tubes	Resin Tins	
Paint Tins		
		
Ready for transfer to: Builders skips for removal to licensed site		
<ol style="list-style-type: none"> 1. Dependent on quantities produced, on container can be utilised for the storage and removal of mastic tubes, resin tins and paint tins only 2. Please Note: The mixing of Hazardous Wastes is prohibited, unless the waste falls under the same classification and a full technical assessment has been undertaken 3. For advice on any issues relating to hazardous waste contact Reconomy Solutions on 0800 454714 		

European Waste Catalogue Code: 17-09-04

Zoe went on to say that firms need to introduce a culture change so that they **RE-think** how they view waste with the idea of stopping it from being produced in the first place. The key elements are these: -

RE - DUCE (Review ordering processes and procedures)

RE - USE (Just because it is no longer needed, doesn't mean it can no longer be used.)

RE - CYCLE (Prevent Waste – Return material to its original source)



It's just like being at home, Zoe added, where we've all got used to segregating our domestic waste and all we need to do is transfer thinking to the workplace. Landfill Avoidance is achieved by: -

- Improved corporate reporting and better cost control
- Innovative systems to improve segregation, compaction, and handling of waste on site

This will give longer-term price certainty, with the ability to fix rates beyond future landfill tax increases.

One example of this thinking is a Closed Loop Recycling System, whereby the waste or by-product of one process or product is used in making another product e.g. Recycling waste newspaper to make paper board or other types of paper. The important steps in this process are: -

- **Waste Collections** – Working with customers to ensure timely and reliable waste collections, including cardboard, plastics, co-mingled recyclates; delivering a range of collection methods and logistics networks, e.g. Industrial Wheelie Bins, Front End Loaders/Rear End Loaders; baled material.

- **Processing, Sorting & Baling** - Extracting maximum benefit from previously wasted materials through processing, sorting and baling – offering flexibility depending on high volumes and seasonal demand
- **Handling and Bulking** - Recognising sector need for increased efficiency in materials resourcing, by utilising safe, clean technologies such as compaction equipment and walking floor trailers – ensuring maximisation in transportation and reduced environmental impact.
- **End Markets/Reuse** - High quality materials, provided cost effectively and reliably to both UK and export customer base of reprocessors and end use markets for use in new products providing true ‘Closed Loop Recycling’.

One of the ways of complying with Duty of Care is by applying Due Diligence to the process, starting with well controlled segregation as illustrated by this Waste Station, including skips and transportation vehicles.



This type of arrangement is required by Site Waste Management Plans, which came into force on 6th April 2008. These plans apply to all projects with a value of £300k or more, with additional requirements for projects with a value of £500k or more. The regulations place the initial responsibility for the production of the plan with the client. The client must produce the plan before the project is started. If a project is started without a site waste management plan, then both the client and the principal contractor are guilty of an offence under these regulations. The regulations also lay out what the plan must include, as follows: -

- The client
- The principal contractor
- The person who drafted it
- The location of the site
- The estimated cost of the project

It must record any decision made in order to minimise the quantity of waste produced on site before the plan was drafted and the following: -

- Describe each waste expected to be produced
- Estimate the quantity of each type of waste

- Identify the waste management action for each type of waste including re-using, re-cycling, recovery or disposal

It must also contain a declaration that both the client and the contractor will comply with the requirements of Duty of Care and that the materials will be handled efficiently and waste managed appropriately.

Once the project starts, the regulations place an obligation on the principal contractor to update the plan. If the project has a value of less than £500k details must be recorded of the identity of the person removing the waste, the types of waste removed and the site to which the waste is being taken. They must also, within three months of the completion of the project, add a confirmation that wastes have been monitored and updated to reflect any changes along with an explanation of any deviation from the plan.

If the project is worth more than £500k, these requirements are increased to include further information: -

1. Review the plan
2. Record the quantities and types of waste produced
3. Record the types and quantities of waste that have been:
 - a. Re-used (on or off site)
 - b. Recycled (on or off site)
 - c. Sent to other forms of recovery (on or off site)
 - d. Sent to landfill
 - e. Disposed of in any other way

Within three months of the work being completed the Principal Contractor must add to the plan:

- Confirmation that the plan has been monitored and updated in accordance with the regulation
A comparison of estimated quantities of each type against the actual quantities of each waste type
An explanation of any deviation from the plan
- An estimate of the cost savings that have been achieved by completing and implementing the plan.

In addition to the requirements laid out in the regulations the Client and Principal Contractor must, **so far as is reasonably practicable**, comply with a number of additional duties laid out in the Schedule to the regulations. These include: -Ensuring cooperation between contactors during the construction phase

- Induction, information and training for every worker, with respect to the site waste management plan
- Ensuring that waste produced is reused recycled or recovered
- There are also a number of other requirements relating to joint responsibilities for both the client and Principal contractor
- Failure to comply with this schedule is also an offence

An over-arching requirement is that the plan must also be up-dated to reflect the progress of the project.

Members' Questions

Mark Hoare of University of Birmingham asked about the purpose of a mound that he had spotted at Derby railway station that had been grassed over. Zoe said, possibly because they didn't want to spend a lot of money removing waste from site, or that it was a noise reduction measure.

Julie Earles of GKN plc, asked if Reconomy analysed companies' annual production of waste, and Zoe said they provide a service to identify waste streams.

David Hughes of Hughes Business Services asked if hardcore could be used on-site for road building purposes. Zoe said it could only be used for domestic driveways because it wasn't the correct strength for traffic.

Phil Mist of the Hire Trade Association Alliance asked if records were kept of the disposal destination of the waste from site toilets. Zoe said that the Waste Transfer documents were adequate proof of disposal. Phil went on to ask about the retention of the various copies of the Waste Carriers forms and whether it was due to be reduced from the present 3 to 2 forms. Zoe stated that there were no plans to change at the moment.

Paul Cartwright of Carillion asked to what lengths waste producers had to check on the actual disposal of materials taken from their sites. Zoe said that the duty extended to following the waste disposal vehicle to make sure that waste was disposed of in the correct manner. Paul continued by asking about checking licence holders status on-line and Zoe added that it was essential to check any brokers involved, as well.

Doug Hunter of G.F.Tomlinson, asked about control of sub-contracting waste disposal contracts and quoted a recent example whereby this had been done twice without reference to his company. Zoe said that Reconomy had a network of approved contractors and no sub-contracting was allowed without permission. Reconomy monitored compliance and if any contractor contravened their conditions they were removed from the approved list.

Phil Mist quoted a presentation at a recent IOSH Conference, where a proposal to discontinue the use of paper waste transfer notes was reported, in favour of an on-line process. Some concern was voiced by the 50+ professionals in the audience that this proposal would be totally impractical because of the variety of backgrounds of the contractors in the waste disposal business. In reply, Zoe stated that Reconomy could see advantages, but that they were eagerly awaiting the outcome of the forthcoming trial before giving a final verdict.

Steve Youngman of Croft Conservation & Building Ltd. commented that there were financial penalties for mixing waste streams in one skip. The problem was, he said,

that it was very difficult to effectively train the workers on the site to adopt the proper segregation practices. Duncan Carthy of Sensible Ltd. supported this contention by quoting a recent Environment Agency blitz at a landfill site when skips were examined and any with mixed content were returned to source for correct segregation by the producers. This resulted in an expensive return trip, in addition to the additional segregation costs.

As there were no more questions, Gerry remarked that Zoe had made a very dry subject, (in her own earlier words) into a very interesting presentation and asked the audience to show their appreciation.