

# Waste Minimisation

## Benefits of Waste Minimisation include:

- Cost savings on feedstock, utilities, disposal services, energy
- Compliance with the objectives of ISO 14001
- Attainment of EMS targets
- Less chance of costly end-of-pipe treatment later on.
- Increased operating efficiency
- Projection of a positive public image
- Reduced liabilities

Foster Wheeler Environmental Services Group believes that a key requirement for Waste Minimisation is a thorough understanding of the process which generates the waste as well as the waste streams. Foster Wheeler's in-depth knowledge of process engineering provides this understanding. The group has developed a Waste Minimisation Manual as a tool to enable structured measures e.g. auditing, monitoring and management and the evaluation of minimisation options by a cost effectiveness scale to be applied. This ensures maximum payback for our clients on compliance with environmental legislation.

## The Waste Minimisation Strategy

Some waste minimisation measures incur no capital expenditure at all; simply an objective and independent assessment of operating practices and procedures to identify and recommend improvements. If an option is considered technically feasible, it will be evaluated on an economic basis.

A good strategy will ensure that:

- Waste Management Systems are in place
- Costs are known
- Reduction targets are established
- Waste streams are monitored and controlled
- Waste is "designed out"
- End of pipe treatment is a last resort

## The Technique

A sliding scale of cost effective waste minimisation:

- 1) Waste reduction/elimination at source: e.g. feedstock, process, equipment or product changes and good housekeeping.
- 2) Recycling/recovery of usable materials for re-use or reclamation after treatment.
- 3) Treatment: Improving the quality and/or reducing the volume of waste by techniques such as flue gas scrubbing, removal of heavy metals from waste waters, waste incineration, reducing

the water content of sludges.

- 4) Disposal as a last resort.

## ISO 14001

As part of Foster Wheeler's commitment to the ISO 14001 Environmental Management System, we incorporate a waste minimisation review into our project execution programmes. This ensures that waste is minimised by design in all our projects.

In addition, we have undertaken site wide waste minimisation studies for clients, providing a report which is:

- Fully auditable
- Can be revisited at a later date
- Can be used for tracking the waste minimisation options implemented
- Provides a single point reference document

## Thames Valley Waste Minimisation Project

Our recent experience includes the "Thames Valley Waste Minimisation Project," which was undertaken on a joint consultancy basis under the Environmental Best Practice Programme. The project was successfully completed to the benefit of the participants who have now taken over the management of the scheme.

