

# Watering down the rules

**With water very much in the news, industry's treatment of waste water is similarly under the spotlight. But even the UK's relatively tolerant regime is being flouted, says Wheelabrator's Colin Worthington**



**'It's worrying that so many companies are disregarding even the current UK regulations'**

## Colin Worthington

General manager, vibratory mass finishing division, Wheelabrator Group

\*Visit [www.netregs.gov.uk/netregs](http://www.netregs.gov.uk/netregs) for general environment regulation advice

Up to 60 per cent of affected organisations are failing to comply with UK rules governing the disposal of effluent from vibratory mass finishing processes, and this is despite the requirements being less demanding, in some ways, than those in countries such as France and Germany.

These companies are not only risking harming the environment but could also incur heavy fines and damage to their reputations. With ever-increasing pressure on supply, industry must additionally look at recycling and using less water wherever possible.

Vibratory mass finishing is widely used in industry. The resulting liquid is classed as trade effluent and governed in the UK by the 1991 Water Industry Act. Discharge into storm, surface, rainwater or other groundwater drainage systems is forbidden, so there are effectively only two ways of disposing of this effluent.

Containerising the liquor and then arranging collection by an officially-licensed waste management and treatment company is one way. But this can be expensive, inconvenient and inflexible, particularly if large volumes of effluent are produced.

Alternatively, after obtaining local water authority's consent, it can be discharged into a main foul sewer. The authority will apply standard conditions or restrictions, normally specifying maximum permitted daily and hourly flows, pH levels, chemical oxygen demand (COD), suspended solids (SS) and toxic metal levels among other stipulations.

The authority will then apply a trade effluent charge, calculated by using a

method known as the Mogden Formula. German and French authorities apply stricter conditions, with tighter pH tolerance, reduced COD and SS levels and much lower metal content restrictions.

I believe the tighter French and German rules are more appropriate than our own, so it's worrying so many companies here are disregarding even the current UK regulations.

The alternatives to disposal of contaminated waste include chemical and mechanical systems. Chemical solutions have been available for a very long time, but plants are relatively large and the operator is obliged to treat effluent in batches, by collecting and storing a volume, then transferring it to another vessel for treatment, and finally using filter bags or a filter press to remove solids and sludge.

Mechanical systems have been developed in the last 10 years and are more compact and easily automated, with the option of continuous closed-loop recycling enhancing efficiency and reducing process cost.

Wheelabrator offers both types but sells more of the latter. Other methods – not in its product range – include less efficient paper or fabric filters and expensive-to-run evaporation systems.

Whatever method organisations employ, they should observe the correct legal processes and, if they go for the discharge to drain option, ensure their effluent is within the limits set. The consequences of operating outside the law can be very severe, and organisations discovered not to be complying deserve very little sympathy. □