

FOOL'S GOLD

Treasure can be found in strange places. Simon Hundal finds that some organisations are literally throwing money away

In 2010, if you rooted around in the desk drawer and pulled together a kilo of silver, you could have cashed it in for £340. Last month, the same quantity would have netted over £660. Few of us even know what one kilo of silver looks like, but for facilities managers, learning to identify precious metal-bearing products within waste streams could offer a valuable income, with the potential to neutralise the costs of waste disposal across the whole site.

The traditional view of the facilities sector covers basics such as lighting, heating, IT and office paper procurement. However, for many organisations managing waste from hospitals or

engineering processes, the range of materials is more complex. Casting companies, munitions, paint and aerospace manufacturers all produce precious metal waste, such as cyanides or industrial x-ray film. Even deodorants contain silver and, in addition to the vast quantities of medical x-ray film used each year, the NHS also generates silver-bearing wound dressings and dental amalgam.

Waste not, want not

Until relatively recently, precious metals tended to slip under the radar. Waste management companies were not trained or equipped to recover them so they were consigned to general waste

streams destined for hazardous landfills or sent for incineration.

This approach leaves a lot to be desired. Environmentally, it leads to the squandering of resources needed for future production. Secondly, although they are often 100 per cent recyclable, once these materials are bulked up with hazardous waste, they are excluded from reported recycling figures. As a result, organisations claiming impressive recycling rates are unaware that their statistics may be wildly inaccurate. Thirdly, and perhaps most pertinently in the current climate, the companies producing the waste are denied the opportunity to embrace an alternative way of working that would see them share in the recovered value.

All businesses need to innovate in order to generate profit. The key question when it comes to generating income



from resources is, would you prefer that wealth to add to your account, or someone else's? Driving value from waste improves the bottom line, and evolving business models need to respond to market innovation. If a partner suggests a new way of working that educates staff to identify value and then redeem that value in cash terms, any company which fails to act is looking a gift horse in the mouth.

Silver service

Most waste management firms and precious metal recyclers offer a simple model that we all recognise; they collect and dispose of waste on a regular basis and charge you, the client, for the service. However, just because things have been done a certain way in the past does not mean they are set in stone. Would you prefer a free service where the waste management firm covers its costs through the value of the material recovered? Or even better, a set charge for overheads and margin, with all the remaining material profit returned to you?

These are not fanciful aspirations; both options are fully operational within the market. At worst, the process remains cost-neutral. However, those organisations that choose to share in the value often realise significant profits. A hospital trust disposing of 40 tonnes of medical x-ray film, for example, may receive a rebate in the region of £20,000. Both the silver and plastics embedded in the film

are recovered for future use and instead of a disposal cost, the trust is able to bank a profit.

With the switch to digital at the turn of the century, the payback from x-ray film will not be infinite – we estimate a lifespan of around five to seven years – but in the meantime, huge quantities of material are amassed in warehouses around the country. Equally, the engineering and industrial sectors produce a range of substances such as sludges, acids and halides which all contain precious metals.

Cash for questions

In many cases, it is procurement managers who first question the discrepancy between spending

and disposal budgets. When engineering firm Doncasters took stock of the payback from its used industrial x-ray film and employed a contractor to evaluate its systems, it secured a rebate of £138,000 in one year. The company's group purchasing manager Louise Hall said, "Initially we started to investigate because the price of silver had increased dramatically since the recession, as people were investing in hard commodity areas rather than more risky business." She explains that the company had seen price on the x-ray films increase, which prompted us to ask whether we should be seeing a benefit from our silver recovery process.

Doncasters operates from

12 sites in the UK, manufacturing products for the aerospace, automotive, gas turbine and petrochemical industries. Four of the sites use x-rays, as part of a final inspection process to check that components such as aircraft blades are free from cracks or distortion.

The company was already generating some value from the silver in the waste stream, but discovered through tender that it was not maximising its assets. Hall explained: "I think some of our sites hadn't really identified the value that was sitting within their processes. One, for instance, hadn't disposed of x-ray film for some time and ended up with a £20,000 cheque."



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Hall is convinced that working in this way will become more and more common in time and recommends rigorous scrutiny across processes: “It is fairly typical these days that waste streams are becoming revenue streams because people are recycling a lot that previously would maybe have gone to waste. The key is to evaluate the process in detail and look for opportunities – there might be people out there throwing x-ray film into a skip because they don’t realise the value of revenue that can be obtained from it. Everyone should be looking at their waste; it is more valuable than it probably ever has been.”

The social cost

Hall’s call for greater scrutiny ties in with a need for more joined-up thinking. According to the annual *BIFM Sustainability in FM Survey 2011*, 91 per cent of respondents believed that their organisation has a sustainability or corporate social responsibility (CSR) policy in place, and corporate image was identified as the principal driver for developing and implementing policies. However, sustainability reporting is only as credible as the figures available.

All too often, precious metal-bearing waste is deemed problematic and consigned to the hazardous waste stream, leaving organisations to report on their office, food and IT waste and unaware that tens of tonnes of additional material might have been included in the statistics.

In our experience, where reporting fails, it can often be traced back to one of two causes, both due to knowledge gaps rather than deliberate negligence. Firstly, if the waste falls outside the typical fare of a waste management firm, lack of awareness of recyclability may be a problem. In this case, the waste will be bulked up as hazardous and sent on for deep burial or incineration. Secondly, a situation may arise where niche items such as x-ray film are managed outside of standard waste collection arrangements – radiographers might arrange for specialist recovery and disposal, for example, without informing the site’s facilities manager.

The second scenario can be overcome with greater joined-up thinking, better communication between departments, and site-wide evaluation of waste materials. The first calls for an innovative approach through contracts or regular review meetings to encourage waste management firms to demonstrate a commitment to improvement. Here, again, evaluation of waste materials is important.

In fact, by implementing simple segregation systems, companies quickly build on performance levels and, instead of one problematic waste material such as x-ray film, they will be able to report on a waste stream that has been collected and disposed of in the correct manner, with four elements – paper, cardboard, plastic and silver – 100 per cent

recycled, and payment banked for the recovered silver fraction.

To sound a precautionary note, it is worth remembering that waste management contractors should be able to provide fully audited figures and data trails. Unfortunately, reporting levels vary enormously, and large quantities of precious metal waste sent for recycling are shipped to India or China, where labour is cheaper and environmental legislation less rigorous. In the case of material such as used film, which contains sensitive personal data, producers must have absolute confidence in the integrity of their collection and disposal company – it only takes one piece of rogue data cause serious reputational damage, and even financial penalties.

Raising the standard

Reputable companies in the UK should be able to demonstrate their proficiency by adhering to recognised standards such as ISO 27000 and BS EN 15713:2009. These not only signify that an organisation is serious about protecting data, but also that correct procedures are in place. In addition, there is no harm in asking questions. For example, are third parties involved in any of the processes and, if so, what safeguards do they have in place? Is the material retained in the UK from collection through to destruction? And are the recovered materials reaching genuine markets once they have been extracted?

In recycling terms, precious metals are almost unique due to their high value and wide applications; genuine markets do exist and buyers are prepared to pay substantial prices.

Businesses need to be looking for ways to innovate and extend beyond the ‘traditional’ recycling methods of office materials. Contracts and tenders should include reference to precious metals and encourage bidders to provide extra value.

And after all, in this climate of budget cuts and increasingly streamlined operations, can you afford not to? **FM**

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