

# SECURE RECYCLING OF BRANDED MATERIAL AT SMITH & NEPHEW

**Smith & Nephew is a global medical technology business. Its Hull site is the main manufacturing site of wound management products in the UK, with 1,200 employees. Smith & Nephew has a strong reputation for integrity and ethical conduct, and its name and products are trusted everywhere around the world.**

**Sodexo provides a range of services at the Hull site, including factory cleaning, grounds maintenance, catering and equipment maintenance, as well as waste management.**

## CLIENT CHALLENGES

Brand integrity is crucial to Smith & Nephew due to fundamental concerns about its reputation and the use of its products. For example, if materials are not controlled from the very start to the end of the product lifespan, they may end up being used or sold in an unauthorised manner, potentially resulting in patient harm.

The arrangement for all branded material, including recyclables, was to treat the waste (including recyclable wastes) through a secure destruction route (incineration or deep landfill). However, this was more expensive and less environmentally friendly than recycling the materials.

The client had difficulty understanding the recyclability of its materials due to the nature of its products, which in several cases are unique to its manufacturing processes. We carried out compositional analysis of the materials and discovered ways to process these materials as a recyclate, allowing us to access alternative markets which did not involve incineration or deep landfill. The benefits included, in some cases, receiving rebates (as the recyclate had a value in the market), or reduced disposal costs (saving money on Smith & Nephew's bottom line), as well as contributing to sustainability targets.

## SOLUTION

We reviewed the solution on site and developed a bespoke waste management plan that encompasses the production waste, food waste, recyclables and non-recyclables.

We introduced the following measures:

- Compositional analysis of the materials taken off site for secure destruction to determine be recycled in alternative markets. whether they can
- Challenging the existing waste solution by accessing new innovations and technology.
- Agreeing a fully authorised robust secure waste removal process with the client.
- Managing the material on site to ensure newly identified recyclable material is diverted from landfill to a recycling facility.
- Using a stand trailer for storage and transportation of recyclable materials, improving material handling and site aesthetics.
- Increasing the number of wheelie bins to improve the safe handling of the waste produced on site.
- Segregating recyclable waste produced in an office environment and thus diverting recyclables from incineration.
- Adopting a continual improvement plan to ensure the waste management plan continues to take advantage of changes in the market and available technology.



## BENEFITS TO THE CLIENT AND END USERS

The new waste management plan introduced has produced a number of benefits, including:

- Reduced the cost of disposing of non-hazardous waste by more than £89,000 within a seven-month period, which is set to provide an annual saving of more than £120,000.
- Diverted recyclable materials from landfill which created revenue, rather than incurring cost for the treatment of branded materials.
- Reduced the volume of waste being disposed at landfill by 10%.
- Reduced the volume of waste being disposed through incineration by 15%.
- Our polymer experts are now working closely with Nephew to understand the make-up and proportions of various materials within each product to understand how we can best manage each product leaving site.
- Adopted a continual improvement plan, including an increased number of site visits from the waste vendor to review waste performance on site and address any actions proactively.
- By changing our waste solution we have accessed local companies and therefore supported the economic regeneration of the area we work in, rather than working with national service providers who potentially haul the waste over a long distance to access treatment facilities.
- The robust process for secure destruction which we put in place at Smith & Nephew's Hull site gave them complete confidence that the branded material was being handled in accordance with their secure destruction policy. They then tested this across other global sites and rolled it out, saving at least £25,000 on an ad hoc basis.



## INNOVATIONS

INNOVATION SUMMARY	BENEFITS	COST SAVINGS/VALUE ADDED
Understanding the client's waste products through ongoing compositional analysis.	Diverting waste from deep landfill/incineration to recyclable routes, resulting in cost savings and sustainability benefits.	<ul style="list-style-type: none"> <li>• Annual saving of £120,000.</li> <li>• Reduced waste to landfill by 10%.</li> <li>• Reduced waste to incineration by 15%.</li> <li>• Better understanding of products at front end leading to innovative waste management solutions.</li> </ul>
On-site shredding.	Diverted branded cardboard and office paper from incineration and processed as recyclates.	Diverted an additional 15 tonnes of cardboard from incineration, avoiding costs of £1,725.
Recovery of silver from waste materials.	The recovery of silver from the site manufacturing waste reduces the need to send materials to secure destruction and returns a cost benefit.	Approximately £42,000 saving per annum.