



Case Study

FOOD WASTE

Stockport

The NHS in England spends around £500 million on food and serves 300 million meals every year. ¹

The food waste can either be sent to landfill, which is expensive, or it can be macerated which involves chopping it up and flushing it down the drain.


Maceration is bad for the environment and is facing increasing regulation because of the high carbon and biological oxygen demand present in the liquefied food.

Treating the macerated food is costly since it wastes a large amount of water and causes blockages from the fat.

To help save money, improve sustainability and to meet future legislation Stockport NHS Foundation Trust near Manchester has replaced its food macerators with two food waste digesters.



1 Page 46, NHS Carbon Reduction Strategy for England. NHS England (2009)
www.sdu.nhs.uk



The Trust's onsite food waste digester uses a bio-enzymatic formula. It turns food waste into grey water, which then passes through the system's filter and into the drains.

It has no harmful effect on the environment. Each unit can "digest" 180kgs of waste per day, and due to its chemical reaction, eliminates fats, oils and greases which can block drains and be expensive to clear up.

Stockport NHS FT carried out an audit and discovered it disposed of 2.6 tonnes of food a week. Each digester can deal with 1.4 tonnes of material per week and the whole process is low odour.

The FT bought two digesters, which are practically noise free in comparison to the noisy environment of the macerators.

Savings

The cost of running the Trust's three macerators is around £22,000 a year. The running and maintenance cost for the digesters is expected to be around £2,200.

This means that over five years, the hospital is projected to make savings of more than £96,000 pounds, with payback period on both machines around 12 months.

Buying the digesters will save the Trust money, will comply with legislation should there be a ban on disposing food waste down the drain and it is also making a positive environmental commitment.

The lifetime of a unit is expected to be more than 10 years.

"Prior to the digester, staff scraped all the food off plates and straight into the macerator. They now have to scrape the food into buckets and then carry them over to the digesters, which inevitably means more handling than using the macerator. The challenge was getting the staff to understand the bigger picture and positive environmental and cost benefits from their actions."

David Moss
Deputy Director of Estates
Stockport NHS Foundation Trust



Any challenges or difficulties?

The Trust initially trialled one machine in early 2011 to establish that the concept would work, and that the food waste digester was the right solution.

David Moss, Deputy Director of Estates at Stockport NHS Foundation Trust, believes the main challenge was achieving the buy-in of all the kitchen staff.

To make sure the digester was the correct choice for the Trust, David and his colleagues went to see digesters in practice and worked out a business case to take to Senior Management.

Hospitals are ideal environments for food waste digesters as there is a consistent supply of waste, unlike other organisations that may have “feast or famine” depending on the events they are holding.



“The national guidance for Healthcare Waste water guidelines issued in April 2011 indicates it may no longer be acceptable to put food waste to drain without consent so the Trust knew action was necessary. Installing the digesters means we avoid blocking drains with fat and food waste and also avoid expensive repairs to macerators caused by cutlery jamming up the motors.”

David Moss

Further to a successful trial the FT installed a second unit.

Success factors?

The most important element that got the project off the ground was being able to demonstrate a good return on investment and a positive environmental and sustainable impact.

If you would like to know more about this case study then please contact:

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The NHS Sustainable Development Unit develops organisations, people, tools, policy, and research to help the NHS in England fulfil its potential as a leading sustainable and low carbon organisation.