

Update

Keeping you informed about Roxby

Biffa

May 2009

Introduction

“Thank you for taking the time to read this news-sheet, which is intended to provide a summary of the work being undertaken on the landfill site at Roxby to prevent landfill odours.

These odours are associated with landfill gas, which is produced when biodegradable waste such as food starts to degrade. Unfortunately, prior to Christmas 2008, the production of this gas increased at an unexpected rate leading to the ‘egg’ like odours you may have experienced.

I would like to apologise for any discomfort you may have experienced as a result of this and I would like to assure you that we are making every effort to capture this gas and prevent odours from affecting the local neighbourhood.

I hope that in recent weeks you have noticed an improvement as the works we have undertaken have started to take effect. I would like you to know that I would welcome your feedback or any comments you may have with respect to landfilling operations at Roxby. You can contact me on 01724 733336.”



Mark Roberts
Site Manager



ABOUT THE SITE

The landfill site at Roxby is a former ironstone quarry. The ore was mined and transported by rail to supply the local iron works in Scunthorpe. Following closure, the disused quarry was abandoned, left partially flooded and featured a large amount of refuse associated with the quarrying operations.

In order to restore the land to its original profile, planning permission was awarded in 1993 to infill the old quarry workings with non-hazardous domestic and commercial waste. One of the key requirements of the planning permission was to eventually open the site for public access.

How landfill works

Waste is an inescapable consequence of modern life. In fact the UK creates about 330 million tonnes of waste a year, a quarter of which is from homes and business. Landfill sites, such as Roxby, are charged with disposing of this waste safely and responsibly. To help them do this, they are guided by robust regulations, policed by the Environment Agency and designed to protect the environment.

Waste is delivered to the landfill site mainly by rail and disposed of in carefully engineered ‘cells.’ Each cell is about the size of a football pitch and is lined with a thick layer of impermeable

clay. This prevents water leaching through the waste and into the ground.

As waste degrades within the cell, it produces landfill gas. This can be particularly odorous and is made up largely of carbon dioxide and methane – both climate changing, greenhouse gasses. By sinking wells into the waste, Biffa is able to collect the gas thus preventing its escape into the atmosphere. This gas is used to generate electricity. The site currently produces eight megawatts of electricity – enough to supply around 6,000 homes. This green electricity is sold to the National Grid.

Keeping you informed about Roxby

Dealing with landfill odours

In the months before Christmas 2008 the landfill site started to generate landfill gas at a much greater rate than we had anticipated. This meant that we were unable to collect all the gas, which resulted in smells being experienced away from the site. We have since worked alongside the Environment Agency to agree an action plan to prevent landfill odours and this is expected to conclude in the next ten weeks. These works include:

In December we laid a clay layer that serves as a seal to prevent the escape of gas. We also installed 187 gas extraction pins. These six metre long, perforated pipes are sunk into the waste and connected to a manifold system operating under negative air pressure. This serves to suck gas out of the site and prevent its escape. Eight deep gas wells have also been installed to capture gas from deeper parts of the waste.

We have also installed and are continuing to install horizontal gas scavengers. Like pin wells, these perforated pipes are laid down within the waste and serve to suck gas out as it is produced.



Scavenger pipes

To further aid odour control a new way of infilling the tip has been introduced. This involves stacking the waste in blocks rather than layers so reducing the surface area through which gas can escape.



Electricity generation

We have taken delivery of a new gas engine. This is helping us to utilise the increased amount of gas we are collecting to generate electricity.

In addition, we have extended the range of our odour control system by an extra 100 nozzles. These nozzles emit a fine spray comprising an odour masker and neutraliser.

Approximately 18,000m² of high-density

plastic (HDPE) sheeting has been extended to cover exposed slopes where gas could escape along with gas extraction pipes installed beneath the sheet.

Initially, around 5000m² of HDPE capping (with gas extraction pipes placed beneath the sheet) has been placed in areas close to the leachate holding tank, to eliminate an intermittent, localised odour.

Frequently asked questions

What about odours from newly tipped waste?

We have asked our customers to ensure that the waste they collect is delivered to the site as soon as possible. We also aim to unload rail deliveries within two hours. This minimises the time that waste is exposed to the air. By burying waste quickly, any risk of odours is greatly reduced.

What can be done about lorries that drop litter along the road?

Open topped lorries should be netted to prevent the escape of litter. If any lorry is spotted dropping litter it should be reported to the site. We take the issue of littering very seriously and will consider banning drivers from the site if they are found to have littered. We will also send a

team out to collect any litter that has fallen from lorries delivering waste to the site.

Has enough been done to ensure these smells don't happen again?

Whilst we are continuing with these works, you may experience the occasional landfill odour. We'd like to assure you that we are working as quickly as possible to remedy this. If you do experience a landfill odour, please contact the site as soon as possible so that we can identify any problems that may have led to it and take action to remedy the situation.

We do try to be good neighbours! We don't like problems and we hope that we can demonstrate that we take such things very seriously and do as much as we can to prevent them.

How to find out more

Biffa encourages trips from local schools and people who are interested in seeing how we manage waste. To arrange a visit please contact the site manager, Mark Roberts.

The site also has a liaison group comprising Parish Councillors in Roxby and Winterton, the Local Authority and the Environment Agency. The group last met in March 2009. Information updates about ongoing works are also published on the Winterton Town Council website at www.wintertoncouncil.co.uk

If you need to contact us:

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