

Environment Agency

Comparison of Bryn lane and Bryn Compost for the Bryn Compost Liaison Group

February 2011

Bryn Lane is a waste transfer station, a composting in closed vessels facility and a material recycling facility. It is located in a Wrexham Industrial estate in North Wales. In contrast, Bryn Compost is situated in a semi-rural area, on an 800 acre dairy farm, which also houses a waste transfer station and an active stone quarry.

At Bryn Lane the IVC facility is very similar to the one located at Bryn Compost, and comprises a reception hall, two stage composting tunnels, intermediate unloading/reloading hall and a despatch area.

The composting process at both sites is also very similar. The one significant difference is that at Bryn Lane the compost is taken off site for maturation into the final product.

In order to control compost odours from Bryn Lane, the building is maintained under negative pressure so that air is continually drawn into the building and its only point of egress is through bio filters and out through an exhaust stack. The odour control at Bryn Compost is similar in that the building is also under negative pressure and is passed through a bio filter.

Although the processes and general odour control measures at these sites are the same, direct comparisons cannot be made in relation to managing the composting odours. Many site specific factors such as the topography of the area, the type of material and how the material is managed which will affect the odours that are produced.

Some useful links

<http://wrg.co.uk/page.php?article=932&name=Excellence+of+wrexham+waste+management+and+recycling+facilities+is+recognised>

http://www.letsrecycle.com/do/ecco.py/view_item?listid=37&listcatid=217&listitemid=9148

Bryn lane – Household, commercial and industrial waste transfer station, composting in closed vessels and Material Recycling facility.

The site is located in Wrexham Industrial estate, 5 miles to the east of the town of Wrexham in North Wales.

The site comprises of three main operational areas located within two building where waste management activities will occur

- In-Vessel Composting (IVC)
- Recycling Facility (RF)
- Waste transfer station

The IVC is located within the larger, eastern building and comprises a reception hall, two stage composting tunnels, intermediate unloading/reloading hall and dispatch hall

The first stage of the process involves placing the material into a sealed tunnel, that has automated air and water inputs to maintain the optimal moisture content and temperature. To ensure sterilisation of the compost, the temperature must be brought up to and maintained at a minimum of 60 degrees for at least 48 hours in order to satisfy the requirements of the SVS accreditation.

On the completion of the first stage of composting, the material is removed from the other end of the tunnel into the tunnel filling/emptying hall and mixed using a decompactor. It is then subjected to a second stage of composting in one of three second stage tunnels, to again achieve a temperature of 60 degrees or higher for 48 hours or longer.

The compost is then removed into the despatch hall, screened to remove any plastics or oversized fractions and exported to a suitably licensed off site facility for further maturation to achieve PAS100 accreditation. The compost would then be screened according to the end use size specification and exported to the market place.

Control of odours.

Air is drawn from both outside and inside of the IVC building, thus maintaining the building under a negative pressure. This means air will be continually drawn into building with its only point of egress being through the water scrubbers, bio filters and out through an exhaust stack.

The bio filters contain wood chips to remove odours. The negative air pressure within the IVC building will help to mitigate the risk of odours.

Other info

The quantities of wastes which are listed in the accepted waste table shall not exceed 81,444 tonnes a year.

Some links

<http://wrg.co.uk/page.php?article=932&name=Excellence+of+wrexham+waste+management+and+recycling+facilities+is+recognised>

http://www.letsrecycle.com/do/ecco.py/view_item?listid=37&listcatid=217&listitemid=9148