



# Blaise

In-vessel composting facility

New Earth Solutions is a specialist business dedicated to delivering sound technical and environmental solutions to the UK's waste problems.

Driven by the outcomes of the Kyoto Protocol on Climate Change, New Earth Solutions has developed a wide range of technologies and processes designed to recover value from waste and to mitigate its impact on the environment.

The New Earth facility at Blaise is a purpose built 50,000 tonne per year site and has been operating since 2008. It is set within a quarry just outside of the town of West Malling. In 2009, planning permission was granted to treat a further 50,000 tonnes of source segregated green and kitchen waste per year at Blaise.

Source segregated waste is that which comes to the site pre-sorted. It contains little plastic or other contaminants and so the final output is a high quality compost that can be widely used in agriculture. Blaise operates a continuous improvement scheme, refining the composting process to ensure optimum results. Blaise serves a number of local authorities within Kent as well as accepting commercial segregated green waste streams.

The New Earth composting process has been evaluated as making a significant contribution in reducing greenhouse gas emissions associated with the disposal of biodegradable wastes.



Blaise Facility

## Type of Waste Processed

- Green waste (lawn and hedge cuttings, leaves etc)
- Green and kitchen waste co-mingled
- Kitchen waste, food leftovers, vegetable waste
- Paper (shredded, un-shredded, clean and dirty)
- Cardboard (shredded, un-shredded, clean and dirty)
- Wood (un-treated)
- Category 3: Catering Waste

### Category 3 - Catering waste as defined by the Animal By-Product Regulations (2005)

"Catering waste means all waste food including used cooking oils originating in restaurants, catering facilities and kitchens, including central kitchens and household kitchens. This definition also includes catering waste from vegetarian restaurants and kitchens".

● Blaise

Other New Earth Solutions facilities:

- Operational
- In planning



# The Process



**Initial Preparation** Upon delivery waste undergoes a visual sort to remove any obviously unsuitable items, and is then roughly shredded to maximise the efficiency of the treatment. The resulting material is then moved to the bio-stabilisation halls for processing.



**Bio-stabilisation Halls** The shredded waste is stored in long heaps, or 'windrows', in fully enclosed halls for a period of 6 weeks. The composting process is self-heating, with the irrigation and oxygen carefully controlled to give the optimum environment for the micro-organisms present in the waste to break down the organic material.



**Screening** Following the bio-stabilisation process the product is screened, removing unwanted plastics and other fragments of waste that have not broken down during treatment. This purifies and improves the quality of the output.



**Testing** The compost is monitored throughout the process and each batch is sampled for heavy metals, stability and nutrient levels before leaving site.



**The Product** The end product is a high quality, sanitised compost, branded 'nutri-7'. To fulfill an audit trail, we maintain comprehensive records on all the nutri-7 we produce, giving complete batch-specific traceability. The compost is PAS:100 certified.



**Automated Control System** The facility operates a Continuous Emissions Monitoring System which enables full control of the process environment as well as monitoring the emissions into the air outside. This system exceeds all required monitoring standards and is assessed regularly by the Environment Agency.



**Emissions Control** Facilities are held under negative air pressure, helping to draw air inwards when doors are opened and minimise air escaping from the buildings. Blaise also has a sophisticated emissions control system incorporating a chemical air 'scrubber' and a final wood chip bio-filter before air is released to the atmosphere.



**Animal By-Products Regulations (ABPR)** In order to meet the ABPR requirements the material must reach a temperature of at least 60° C for a minimum of 16 days while being turned every 48 hours. This is monitored by electronic probes inserted along the length of the windrow, sending data back to the automated control system.

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