



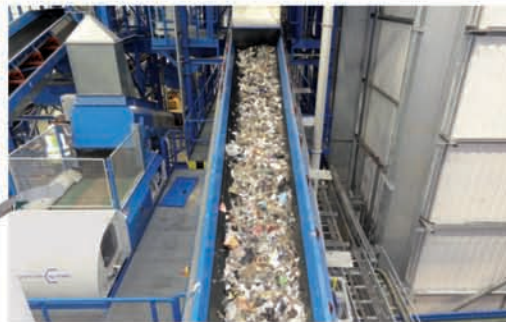
# MANCHESTER (UK)

## LONGLEY LANE

*Mechanical-Biological Treatment Plant for Sorting,  
Recycling and Energy Recovery of Municipal Residual Waste*

### HEC Environmental Consulting

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### Project

Mechanical-biological waste treatment plant (MBT) for 130,000 t/a of municipal solid waste, start of construction November 2009

### Customer

Costain Ltd as the main Contractor for Greater Manchester Waste PFI / Viridor Laing

### Supplier of Process Engineering

HAASE Environmental Consulting GmbH

### Mechanical Treatment

Generated fractions from input material:

- Organic fraction (for further treatment)
- RDF fraction (for incineration plant)
- Ferrous metals (for recycling)
- Non-ferrous metals (for recycling)
- Heavy fraction (to be disposed of in landfill sites)

### Anaerobic Digestion

- Approx. 45,000 t/a of the organic fraction from mechanical pretreatment
- 2-stage wet AD, hydrolysis 1 x 4,000 m<sup>3</sup>, digestors 2 x 4,000 m<sup>3</sup>,
- Aeration of the substrate, subsequent separation of solid/liquid matter and thermal drying
- The dried substrate will be delivered to an incineration plant

### Gas Engineering

- Gas storage tank
- Booster station for 1,400 m<sup>3</sup>/h of biogas
- Biogas flare HT type, 7.5 MW
- Containerised biogas CHP (2 units), 2 MW<sub>el</sub> / 0.9 MW<sub>therm.</sub>
- VocsiBox® for the treatment of max. 120,000 m<sup>3</sup>/h of process air

### Water Treatment

- Containerised membrane plant with gravel filter and 2-stage reverse osmosis for the treatment of 100 m<sup>3</sup>/d of water from digestion process