

Alderburgh Ltd

Project: **Lancashire Waste PFI Project (Leyland) Phase 1**

Size: **36,250 m2 Tuflex barrier system**  
**14,500 m2 Geovoid 52/96 gas ventilation system**

Location: **Leyland, Lancashire**

Client: **Waste 2 Resources, Project Lancashire LLP**

Engineer: **DGP International**

Contractor: **Kiernan Construction Ltd, sub-contracted to Bovis Lendlease**

Installation Contractor: **Solutek Environmental Start date: June 2008**

### **Project details:**

This brownfield site was to be the location for an innovative waste recycling plant. The site was piled, with perimeter beams; there was a vast pit (approx 30m x 28m x 3m deep) – a robust & durable gas protection system was essential.

### **Solution**

#### **Gas barrier:**

Working closely with DGP, a design using a combination of gas barrier materials was developed to provide a fully integrated solution. Tuflex membrane was used around the perimeter beams and beneath the main floor slab; all laps were heat-bonded – the twin-wedge technique was favoured to enable testing of the laps as part of a rigorous QA procedure. The large pit area had Alderprufe MR50 and Backerboard beneath the slab and to the walls – all laps were heat-bonded for total lap security. Pre-formed pile collars were heat-bonded to the pile, and then on to the main or 'parent' gas barrier membrane. Geovoid 52/96 void former was used to provide an efficient cost effective gas venting solution.