

Case study: Training for landfill gas inspectors



- Institution: Cranfield University
- Funder: Environment Agency
- Sector: Waste
- Project Type: Training

Anaerobic deterioration of biodegradable wastes in landfill sites is an important source of greenhouse gases. Of the estimated UK total of 2330 kt methane emitted in 2008, 966 kt (equivalent to 24 Mt of carbon dioxide) came from landfill, compared with 876 kt from livestock agriculture, the next largest source. Increasing the amount of methane that is recovered and used as fuel is an important method of reducing emissions.

In 2008 Cranfield University was asked by the Environment Agency (EA) to run a 12 day course to train 12 EA officers, based on the knowledge of a retired EA industry expert. At the end of the course, the students split into two groups, each of which undertook 12 site visits. These 24 sites were subsequently assessed by the EA, who estimated that the additional measures recommended had collected an additional 7,600 m³/hr of landfill gas. A further 12 officers have now received the advanced training, and another 70 have attended a foundation course in which they learn how to audit and assess landfill gas controls on sites.

The additional collection of methane resulting from the first set of visits is equivalent to 453 kt CO₂e/year. Extrapolating from this by making conservative assumptions about possible diminishing returns, the savings to the end of 2010 from the two groups (the retrospective brainprint) are about 1,330 kt CO₂e with a 95% confidence range of 1,091–1,570 kt CO₂e. Using the same assumptions, if both groups continue working for a further three years, the savings over the five year period (the prospective brainprint) will be 5,380 kt CO₂e with a 95% confidence range of 3,695–7,309 kt CO₂e.