The National Industrial Symbiosis Programme (NISP) has cemented an innovative collaboration between two of its business members, resulting in 10,000 tonnes of ash from a municipal energy-from-waste plant being recovered and reprocessed to create a fill material suitable for the construction industry that fulfils Environment Agency requirements.

Bottom ash from coal-fired power stations has been recovered and reused in the blockmaking industry for many years. However, the recovery and reuse of ash generated by energy-from-waste facilities is less common, with over half-a-million tonnes of incinerator bottom ash (IBA) being sent to landfill each year in England and Wales alone. Although this type of processing is fairly routine across Europe and particularly in Scandanavia, it is less common here in the UK because of the distance between IBA producer and the main reprocessing facilities. As a result growing volumes of IBA are being sent to landfill.

NISP, an independent organisation funded by the government, is primarily a business opportunity programme. It encourages companies from different sectors to work together, identifying links between businesses so that underused resources (materials, energy and water) from one company are recovered, reprocessed and reused by others.

NISP identified a number of sources in the Yorkshire and Humber region generating substantial volumes of IBA that was suitable for reprocessing into a basic fill material for construction projects. Its regional team contacted one of its members, Gilbert Chapple Haulage Limited (GCH Ltd), which had been sourcing quantities of ash for the blockmaking industry for many years and had also secured a number of routes to market for pipe bedding and trenchfill material.

Following a series of trials GCH Ltd successfully created a fill material that met the needs of the engineering and construction markets and Environment Agency requirements.

Gilbert Chapple, director of GCH Ltd, said: “Our first experience with NISP has proved extremely productive. We find that information about various types of material that are currently in need of a home comes frequently and accurately from the NISP team.

“We are pleased to be involved in a project which actively prevents unnecessary use of landfill and at the same time uses our expertise to recover saleable material. We look forward to continuing our working relationship with NISP in the foreseeable future.”