

ScotAsh - Innovation in sustainable construction products

Recycling waste ash from power stations, ScotAsh has displaced the need for more than 1.5 million tonnes of primary aggregates, avoiding 100,000 tonnes of CO2.

A joint venture between ScottishPower and Lafarge Cement UK, ScotAsh Limited was formed in 1999 out of a desire by both companies to be proactive in recycling and sustainability, and to maximise the beneficial re-use of ash. Based at Longannet Power Station in Fife and employing 24 people, ScotAsh aims to recycle the station's entire ash output into quality construction products using recycled pulverised fuel ash (PFA).

The objectives of the joint venture include reducing the volume of raw materials used in cement and construction products, as well as CO2 emissions from the production of conventional Portland Cement, and creating an income stream from a material once regarded as a waste.

Process

ScotAsh uses powder technology expertise to take the ash from ScottishPower's coal-fired power stations and turn it into cements, grouts, waste stabilisation products and other specialised materials. To maximise reuse of ash, the company is engaged in research and development programmes with several Scottish Universities. ScotAsh is the only PFA processor in Europe to use electrostatic separation technology as part of an end-to-end manufacturing process. This technology allows the company to control the carbon content of PFA in order to maximise the use of high-grade mineral ash and maintain consistent quality standards.

ScotAsh's management team engage proactively with Government and regulators, trade and industry bodies, customers, suppliers, and the local community to seek feedback and enhance knowledge. Staff are empowered to achieve environmental objectives through delegated authority, ongoing training and a staff suggestion scheme which rewards good ideas.

Impact

During the last three years, ScotAsh has displaced the need for more than 1.5 million tonnes of primary aggregates, avoided 100,000 tonnes of CO2 from the manufacture of conventional Portland Cement and avoided the need to dispose of around 1.3 million tonnes of ash to landfill or lagoons. In addition, using processed PFA as an addition to concrete lowers the water demand, which in turn saves energy.

www.scotash.com