

FOR IMMEDIATE RELEASE

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UKQAA launches pioneering fly ash research project

The UKQAA (UK Quality Ash Association) has announced an extensive research programme into the recovery and use of stockpile fly ash is now underway.

The UKQAA – the representative organisation for the producers and users of coal ash in the UK – has launched a new fly ash research project, in partnership with the Concrete Technology Unit (CTU) at the University of Dundee, to investigate whether stockpiled fly ash could be recovered and used as a pozzolana in concrete and cement.

The research programme – the first of its kind in recent years – will be significant for the construction sector. With demand on the rise for high quality fly ash, the research could help give the sector access to material previously thought unusable. It's believed that there's as much as 50 million tonnes of fly ash in storage at coal fired power stations across the UK, but until now there's been no study into the amount of ash that could be recovered for use in construction.

Driven by the UKQAA, the study will first establish an accurate estimate of the amount of stockpiled ash in the UK. Samples from across UK ash fields will be collected and tested in laboratories to assess their performance as pozzolanas, used as a partial cement replacement in concrete. The CTU will then work with the UKQAA to develop a process route to transform stockpiled ash into fly ash which meets the specification of EN 450, the recognised standard for the use of fly ash in cement and concrete.

The benefits are potentially huge. Fly ash sourced directly from power stations is already widely used in the construction sector, from bricks and blocks to ready-mixed concrete in major engineering projects. If successful, the research could significantly boost supplies and allow the industry to make greater use of a valuable secondary material – cutting carbon dioxide emissions and reducing the need for primary raw materials in cement and concrete production.

Dr Robert Carroll, Technical Director at the UKQAA, said: "This is a really exciting opportunity. Fly ash demand continues to rise to keep pace with a growing construction sector, but availability is



dependent on our use of coal power. Unlocking the potential of stockpiled ash in ashfields across the UK could increase supply, meet construction demand and exploit an otherwise underused material.

“Fly ash is a vital construction material and key constituent of sustainable concrete products. As a result there is a well established fly ash supply chain in the UK, with a consistent demand for raw material. With up to 50 million tonnes of fly ash stockpiled in the UK, this project has the potential to not only sustain a well established ash market but also create new ones.”

The flagship project is jointly funded by the UKQAA and the Engineering and Physical Sciences Research Council and is expected to run for three and a half years. Based in the laboratories of the University of Dundee, the research programme is being lead by Dr Michael McCarthy, with a team including PhD research student Thomas Hope, who will work in close partnership with the UKQAA and its members.

Dr McCarthy added “We have carried out research on fly ash in construction for more than 25 years and the project, investigating recovery and processing of stockpile material, is in keeping with much of our other work concerned with broadening the scope of its use. We look forward to our role in this important area”.

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Notes

The UKQAA represents the interests of UK producers and users of coal fired power station, co-combustion and biomass ash products. The aims of the UKQAA are to promote the scientific, technical, industrial, environmental, educational and legal nature associated with applications for ash produced from UK power stations.

For more information on the UKQAA, please visit www.ukqaa.org.uk