

Belzona Polymerics Limited, a world leader in the design and manufacture of polymer repair composites and industrial protective coatings has recently saved a major coal fired Power station in the UK expensive replacement costs and unplanned downtime by the application of a polymer repair solution

Repair solution doubles the service life of pump

During a routine maintenance inspection, a centrifugal pump handling highly abrasive slurry fly ash was found to have severe erosion damage to its impeller and volute casing. Jamie Gallagher, Power industry specialist for Belzona explains, "The original pump components in excess of 500 Brinell hardness were still badly eroded. The impeller had approximately 10-15mm missing from the leading edge and the volute casing had cavities approximately 20mm in depth."

The component parts were rebuilt with a Belzona composite repair system back to the original profile and machined with diamond cutting tips. The impeller and volute case were then coated with a ceramic filled Belzona material, combining extremely hard, closely packed abrasion resistant materials in a polymeric binder in order to resist future abrasive attack.

Gordon Haylot of Norec (facilities management company) who operates the coal and ash plant, commented, "The total supply and fix costs for this Belzona solution were just a third of the cost of a new replacement pump. I also believe that the Belzona material gives better protection against erosion than the original alloy used, doubling the service life in comparison to a new uncoated unit."

Jamie Gallagher further commented, "This is just one of many applications within the Power industry where Belzona have been able to provide the customer with an efficient and cost effective solution. The work undertaken enabled a prompt return to service of the pump ensuring minimal downtime and disruption to the Power station operations team."

Belzona sets itself apart from its competitors by providing solutions which are

proven to last. Engineers rely on Belzona for the versatility of its products and the company's ability to repair, protect and solve costly problems. Gordon Haylot further explained, "The level of service and technical support from Belzona has been of the highest standard. The Belzona solution is unique in that it allows equipment to operate until a suitable planned maintenance window, avoiding the unplanned windows

seen with uncoated equipment. This is a vital factor when a plant operates 24 hours a day, 7 days a week." **EMS**

► **For more information about Belzona's range of pump repair and protection systems or other machinery and equipment repairs, contact Belzona direct on 01423 726103 or visit www.belzona.com**

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1 Slurry ash pump impeller in service up to 6 months without a Belzona lining



4 Slurry ash pump internal volute completely lined with a Belzona abrasion resistant material



2 Slurry ash pump volute in service up to 6 months without a Belzona lining



5 Slurry ash pump impeller rebuilt and lined with a Belzona abrasion resistant material



3 Slurry ash pump volute rebuilt with a Belzona rebuilding grade material



6 Belzona protected slurry ash pump removed after 2 years in service for inspection. Only minimal Belzona refurbishment before being returned to service