

# HEAVY DUTY PROTECTION FOR FGD SYSTEM

## at Eggborough Power Station

Eggborough Power Station has been generating electricity for over 30 years, producing a maximum output of 2000 Megawatts – sufficient to meet the demands of 2 million homes.

A FGD (Flue Gas Desulphurisation) plant has recently been installed to significantly reduce sulphur dioxide (SO<sub>2</sub>) emissions and ensure that the National Air Quality Standards are met. Within the FGD plant, limestone slurry is sprayed into the hot flue gases. The flue gas reacts with the limestone to remove at least 90% of the SO<sub>2</sub>, creating a gypsum slurry which is dewatered and sold for plasterboard manufacture. Water used in the process is taken from Eggborough's cooling water system which is fed by the nearby River Aire. Before use in the FGD plant, this water must be filtered to 100 microns in order to prevent blockages in various spray nozzles within the FGD plant.

A constant supply of water at up to 100 tonnes per hour is required by the FGD plant. However, after heavy rainfall the run-off from nearby arable land - especially at harvest time – can lead to a dramatic increase in particulates in the river and cause blockages in the FGD water filter. This is a major concern as the FGD plant must be shut-down within 20 minutes of an interruption to its water supply. Under EA regulations the associated generating unit may not be allowed to operate without the FGD plant also in service.

A new BOLLFILTER Automatic Type 6.18.2 Heavy Duty System with BOLLFILTER Automatic Type 6.18 on stand-by has been installed on the FGD water inlet from the Power Station water intake. This removes any particulates over 100 microns, preventing the risk of blockages in the FGD plant.

Rob Welborn, responsible for FGD Operations, was responsible for specifying the new filter system. *"I liked BOLLFILTERs self-cleaning technology and the new heavy duty automatic filter has proven effective. Since the system has been installed we have not lost any days operation due to water filter blockages."*

<b>Client</b>	British Energy
<b>System</b>	BOLLFILTER Automatic Type 6.18.2 DN300 & Type 6.18 Flow Rate: 313 m <sup>3</sup> /h. Filtration Level: 100 microns. Operating Pressure: 6 bar



TOP. Eggborough Lagoon, fed by raw river water pumped from the River Aire.

CENTRE. BOLLFILTER Automatic Type 6.18.2 Heavy Duty Filter system, including BOLLFILTER Automatic Type 6.18 standby.

BOTTOM. Eggborough's FGD Plant.



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