

CASE STUDY

Success Pumping Fly Ash Slurry

Sunflower Electric Power, Kansas

The Challenge

Lime slurry is highly abrasive, hot, viscous and alkali
High solids concentration to 50%

Four Disc Pumps have replaced 14 centrifugal pumps at the Sunflower Electric Power plant in Kansas. They are employed in a dry scrubber at the power plant to pump an abrasive and high solids concentration lime/ash slurry at 220 GPM flow rate and 150 ft TDH.

Lime/ash slurry is highly abrasive, hot (100 0F) and alkali, with a pH of 12.5. Its specific gravity is 1.42 and solids concentration is 47-49%. Although the solids size is small, with the fly ash in the slurry having the consistency of an extremely fine powder, the slurry sometimes clumps together.

The Discflo Solution

Boundary layer effect' in Disc Pump reduces abrasion, corrosion

Pumps performing "excellently"

Four week quote-to-shipment turnaround time

Despite these difficult fluid characteristics, this is an ideal application for the Discflo technology. So confident of success was Sunflower, that they spent

\$450,000 redesigning the scrubbing process to put the Disc Pumps into service in 1998. The pumps transfer the lime/ash slurry from a mix tank on the ground floor to a head tank approximately 110 ft above ground floor level.

Their confidence has paid off. After 18 months' continuous service, Sunflower's spokesman Bob Crocker commented: "The pumps are performing excellently - we're tickled to death with them."

Another plus for the project: The consignment of over-under Model 402-14- 2HHDL pumps took just four weeks to design and build from quote to shipment.



Call Discflo now to find out how our pumps can solve your problems.