

# Keeping power station pumps up to speed

Integrated Pump Technology is keeping the submersible pumps used in a large Limpopo power station's process drain sumps in optimal condition through high quality maintenance.

Integrated Pump Technology is maintaining the stainless steel Faggiolati submersible pumps used to drain a Limpopo power station's process sumps. The pumps were initially supplied by Integrated Pump Technology, which locally represents the Italy-based original equipment manufacturer (OEM). Carefully specified to perform optimally in high temperatures of up to 70°C, these pumps drain the water that reports to the sump from a number of the power station's sub-systems, including the turbine hall hot drains and the condensate polishing plant.

"When the pumps are swapped out for maintenance, they are brought to our well-equipped workshop in Jet Park for a comprehensive strip quotation and fault report," says Fred Slabbert, workshop manager at Integrated Pump Technology. "We assess the complete pump, including checks on oil, wear levels, insulation, bearing lubrication and electrical cables."

An important aspect to consider is the wear on the impeller, says Slabbert, as this directly affects the pump's efficiency and ability to reach its duty point. The pumps are required to move 100 m<sup>3</sup> per hour at a head of 45 m. To speed up turnaround times on maintenance, the company keeps special repair kits in stock from Faggiolati Pumps in Italy.

"With our experience in maintaining and repairing Faggiolati pumps – among other



pump brands – we make sure that all work is done to OEM standards," says Slabbert. "This includes extensive testing capability, with a test tank that can accommodate motors of up to 150 kW."

After the repairs on these units, a representative of the end-customer is present at the Integrated Pump Technology workshop to witness the final tests and receive the test certificate. This testing includes the 1.5 bar

pressure test on pump seals, and confirmation that there is no water infiltration into the oil.

"The pumps are then subject to full pump-curve testing in the tank, witnessed by the end-customer," he says. "We have always had positive efficiency results on the Faggiolati pumps in these tests, proving our technical capability to meet OEM standards."

[www.pump-technology.com](http://www.pump-technology.com)

## Skyriders undertakes UT wall thickness testing at Tutuka

During last year's lockdown, rope-access specialist Skyriders undertook an inspection of pulverised fuel (PF) piping at Tutuka power station near Standerton in Mpumalanga for electricity utility Eskom during the Unit 6 outage.

The six-day project was completed successfully by a specialist team using ultrasonic (UT) wall-thickness testing techniques, explains Skyriders marketing manager, Mike Zinn.

The company has a contract with Eskom to carry out inspection and maintenance at Tutuka power station on a standby basis, as and when

required. It has been carrying out general rope access maintenance and inspection at Tutuka since 2005.

Although scaffolding has been used in the

past, rope access has proven a more efficient means of gaining access to high-elevation structures such as boilers and smokestacks. Rope access is also significantly faster and cheaper, as well as more flexible.

Time constraints are a particular challenge in the power generation sector, where any maintenance required has to be carried out either during outages or planned shutdowns. Skyriders has, successfully to date, provided rope access and NDT services to Eskom for a couple of decades. □

