

NSEZI WATER TREATMENT PLANT MHLATHUZE WATER

SUMMARY OF WORKS	
Type of Works	Water Treatment Works
Location of Works	Rachard's Bay, KZN
Size of Works (M&D)	54 M&D upgrade
Date of Award	April 2009
Date of Completion	April 2011
Completion Value (Including VAT)	R 65 000 000
Client	Mhlathuze Water
Conditions of Contract	GCC 2004

The Nsezi WTW is located near Richards Bay, KZN, South Africa and serves various Industrial as well as Municipal consumers.

The Project was for the expansion and upgrade of the Plant from 150MI/day to a total treatment capacity of 204 MI/day.

PCI Erbacon Joint venture was the Contractor for the Project.

PCI Africa lead the Joint Venture and was responsible for Project Management, as well as the detail design, supply, installation and commissioning of the Plant.



View of new filter gallery



Clarifier scraper mechanism during installation



Flocculator paddles after installation

Paterson Candy International (SA) (Pty) Ltd, trading as PCI Africa

T +27 11 794 5004

11 Ridge Road, Laser Park, Honeydew, 2170 | PO Box 308, Northriding, 2162

Reg no: 1953/001821/07

www.pciafrica.com

Directors: MJ Hughes, CO Azih, G Burton-Durham



New monolithic rapid gravity filter under drains

The following mechanical and electrical equipment was designed, supplied, installed and commissioned:

- New alum and poly dosing sparge, pipes and new feed pipes to inlet tower.
- 1200 DN Mag flow meter in the new flow meter chamber.
- Penstocks in the new inlet tower.
- Provision of a 48m diameter clariflocculator mechanism in the new tank, including weir flow control.
- Rehabilitation of existing 48m diameter and 34m diameter clariflocculator's – removal of old mechanisms and replacing with complete new clariflocculator's and weir flow control.
- 4 New rapid gravity sand filters including the PCI K-Floor under drainage system.
- Filter front piping and level control equipment as well as filter backwash equipment
- Control room equipped with an active Mimic boards to indicate the functionality status of the whole plant equipment.
- Electrical control panels and switchgears.

The Contract was awarded to PCI Erbacon JV in April 2009, and completed in April 2011. The final contract sum was R 65 000 000.

Project was completed on budget and within the programmed time frame.

Treated water quality from plant exceeded water quality targets.



48m diameter clariflocculator bridge prior to installation



48m diameter clariflocculator after installation