

TREATMENT OF RAW WATER TO PURIFIED WATER LEVELS USING DOUBLE PASS REVERSE OSMOSIS

Gareth Kearns

VWS Envig (Pty) Ltd, 5 De Vreugde Crescent, Daljosaphat, Paarl, South Africa
Tel. +27 21 870 2712; Fax +27 21 872 2664, email: gareth.kearns@veoliawater.com

Following the successful construction and installation of two water treatment plants for the Open Cycle Gas Turbine (OCGT) project in the Western Cape, VWS Envig has been awarded the tender to supply another two plants for ESKOM's upgrade of the same project. The upgrade sees an additional five units of 150 MW being constructed at the Ankerlig Power Station in Atlantis, and two additional 150 MW units at the Gourikwa site near Mossel Bay.

Product water required is used for various purposes and meets conductivity levels less than 0,5 $\mu\text{S}/\text{cm}$.

The project entails the supply, installation, commissioning and performance testing of the complete reverse osmosis (RO) system, including all mechanical and electrical aspects. The system features a double pass RO which is automatically controlled. A single train RO system with a capacity of 1,5 m³ per hour will be supplied to the Gourikwa Power Station, while the Ankerlig Power Station will receive two trains of the same capacity.

Process configuration and preliminary operational data are presented, which demonstrate that suitable pretreatment allow RO to produce high-quality water.