Offshore water treatment

VWS WESTGARTH

Petrobras P52 (301,890 BWPD)

Process:	**Sulphate Removal**
Client:	**Petrobras P52**
Country:	**Brasil**
Contract Description:	**Supply of Sulphate Removal System**
Contract Date:	**March 2004**
Contract Completion Date:	
SRP Capacity:	**301,890 BPD (48,000m^3/day)**
Sea Water Conversion:	**75%**
Sea Water Feed Quality:	**36,000 (tds)**
Product Water Output Quality:	**<100mg/l sulphate**

Project Description:
The Project is for the design, supply of a seawater treatment plant sized for 301,890 BPD of low sulphate water.

The Project scope consists of a multi-module arrangement comprising: Coarse inlet strainers, Guard Cartridge Filtration, HP Feed Pumps, Sulphate Removal Membrane System, Chemical Cleaning System, Control Valves and Instrumentation.

Process Description:
Fine filtration is achieved by a set of cartridge filters to provide fine filtration down to 5µm prior to membrane trains. Each set of cartridge filters supplies feed water for three (3) trains.

The conditioned water, boosted to the required feed pressure, enters the Sulphate removal trains. Each membrane train is fitted with pressure vessels containing SR90-400 nanofiltration elements. A recovery of 75% is achieved by a 2:1 brine staged configuration. Brine reject from the process is discharged overboard, while the low Sulphate permeate is routed to the plate heat exchanger and vacuum deaerator. A dedicated clean in place (CIP) package, consisting of cleaning tank, pump, heater and cartridge filter vessel is provided for membrane cleaning purposes.

VWS Westgarth Ltd
Orbital House, 3 Redwood Crescent
Peel Park, East Kilbride, G74 5PR
Scotland, U.K.

Tel: +44 (0)1355 588000
Fax: +44 (0)1355 588001
e-mail: contact@vwswestgarth.co.uk

www.vwswestgarth.com
www.veoliawatersystems.com