MicroClear®

CASE STUDY

INDUSTRIAL PARK FOR PETROCHEMICALS - SAUDIA ARABIA

Project Background

Saudi Aramco built an industrial park in the Saudi Arabian desert (240 hectares) for attracting companies in the petrochemical sector. The sanitary waste water was to be treated in a waste water treatment plant and reused for irrigating green areas. Using its MBR process, we were able to comply with all of the requirements on the requisite process quality and were commissioned to build the plant. The systems were designed and built in accordance to ARAMCO standards.

Project Description

The waste water is collected across three areas and directed to the central mixing and compensating reservoir using waste water pumping stations. The waste water is distributed across the three MBR container waste water treatment plants. Each container is an independent mobile unit. The surplus sludge is thickened in the sludge dewatering process before being disposed of. The treated waste water is collected in two tanks. Irrigation pumps convey the treated waste water into the irrigation network in a time-controlled manner. A filling station for tanker trucks was also installed to enable further use of the recycled waste water. All mobile plant components were manufactured in Germany and shipped to Saudi Arabia. Setup and commissioning were completed within 3 months.

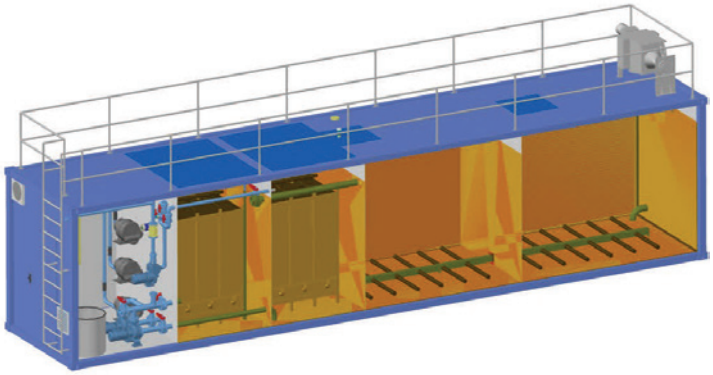
Benefits: - Short completion times by containerized plants
- Water recycling for use as cooling water and for irrigation

Technical Data

Waste water	525 m³/d
BOD_5	525 kg/d
	1750 EW
Temp.	20-45°C

Project Duration

- Juli 2010 - May 2011



newterra GmbH, a subsidiary of newterra Group Ltd, is the technical center of development and excellence of the globally successful MicroClear® flat sheet membrane for MBR (membrane bioreactor) applications. The evolution of the filtration module, by specially developed and optimized production machines, to the ISO 9001 certified manufacturing process of the MicroClear® membranes, is 100% produced at the site in Langgoens, Germany (near Frankfurt).

Revised: 13.01.2014
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