

Qatar's new GTL plant gets reuse systems

I&S WT (Water Technologies) is providing ORYX (Q.S.C.)'s new gas-to-liquids (GTL) plant in Ras Laffan Industrial City, Qatar with two separate water treatment systems for water reuse. Both fast-track projects are expected to ship before the end of first quarter, and both are scheduled to become operational by year's end. The project is to be carried out by the I&S company USFilter, Warrendale, Pennsylvania, North America's leading water treatment technology and services supplier.



The wastewater treatment system will consist of CPI separators, aeration system equipment, secondary clarifiers, dissolved air flotation separators, traveling bridge filters, pumping systems and gravity belt thickening equipment. The system will treat 1.3 million gallons per day of wastewater generated during the Gas-To-Liquids conversion process. A portion of the treated effluent will be utilized as irrigation water within the Industrial City, with the remainder being reused for cooling tower makeup.

The follow-on biological treatment package plant will include, among other things, overall plant design, lift station pumps and controls, a rotating biological contactor (RBC) with supplemental aeration, gravity clarification equipment and skid-mounted chlorination and dechlorination equipment. The plant's RBC will provide continuous treatment for varying load rates. The custom-designed system will be able to handle higher than normal temperatures from sanitary/cafeteria effluent, ultra-low discharge coliform and low sodium levels. The system's low operator interface requirement makes it ideal for the plant.

In addition to providing a process and extended mechanical warranty as well as a FRP cover for the biological treatment system, USFilter will also supply a substantial portion of the instrumentation, controls, interconnecting piping and valves for both treatment systems.

“The customer insisted on a fast-track schedule during our negotiations,” recalls Robert Wenta, USFilter sales manager for the HPI, CPI and Oil and Gas markets. “We had to work together very closely to come up with a joint plan of attack that could meet ORYX GTL Limited (Q.S.C.)’s needs.”

The ORYX-GTL plant has been described as the biggest and most technically advanced GTL plant in the world. The facility will be the first commercial-scale GTL plant outside of South Africa to produce high-quality diesel, naphtha and liquefied petroleum gas. With an installed design capacity of 34,000 barrels per day (bbl/d), ORYX GTL Limited (Q.S.C.) is already planning to increase production capacity to 130,000 bbl/d by 2010.

Technip Italy, S.p.A. is the engineering firm for this ORYX GTL Limited (Q.S.C.) project.

ORYX GTL Limited (Q.S.C.) is a joint-venture between state-owned Qatar Petroleum and South African Sasol Synfuels International (Proprietary) Limited. Qatar Petroleum is responsible for all oil and gas industry processes in Qatar as well as exports. Sasol is the world’s largest producer of synthetic fuels.

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