

## CASE STUDY



## WATER PURIFICATION & OILY WASTEWATER TREATMENT UNITS FOR POWER PLANT

**DEVISE ENGINEERING S.A.** designed, constructed and supplied in 2012 a Packaged Water & Wastewater Treatment Unit to the **Ministry of Electricity in Iraq** through Al-Bilal EPC Company, for the project of **Buzurgan Gas Turbine Power Plant Extension**.

DEVISE supplied two Packaged-Containerized Units, one for the Water Purification requirements of the Power Plant and the other for the Treatment of Oily Wastewater generated by the Gas Turbine Power Station.

The **Water Purification** Plant supplied in skid mounted form was composed of a two stages, the physical-chemical pre-treatment stage and microfiltration and the second stage included water polishing and demineralization using reverse osmosis membranes. The maximum treated water quantity was 200 m<sup>3</sup>/d and the minimum quality was Turbidity < 0.2 NTU and TDS < 2000 mg/l

The Packaged **Wastewater Treatment Plant** was designed to remove the oil and solids from the effluent produced by the Gas Turbine and associated equipment and also to maintain the pH of the wastewater in neutral range. The plant included physical-chemical treatment and DAF separation as well as micro-filtration with pH adjustment. The total capacity of the WWTP was ~ 24 m<sup>3</sup>/d and the effluent quality requirement was to achieve TSS < 0.5 mg/l, Jet oil < 10 mg/l, pH = 8.5

Both units were supplied in a packaged containerized form, pre-engineered, pre-fabricated and pre-tested ready to be installed by the main contractor.

The plants were fully automated and controlled through an advanced PLC & SCADA system to ensure reliable and efficient operation.

DEVISE ENGINEERING provides its clients Smart Water Solutions at a competitive price and guaranteed performance with the highest European Quality.



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