

Client
Sharjah Electricity and Water
Authority

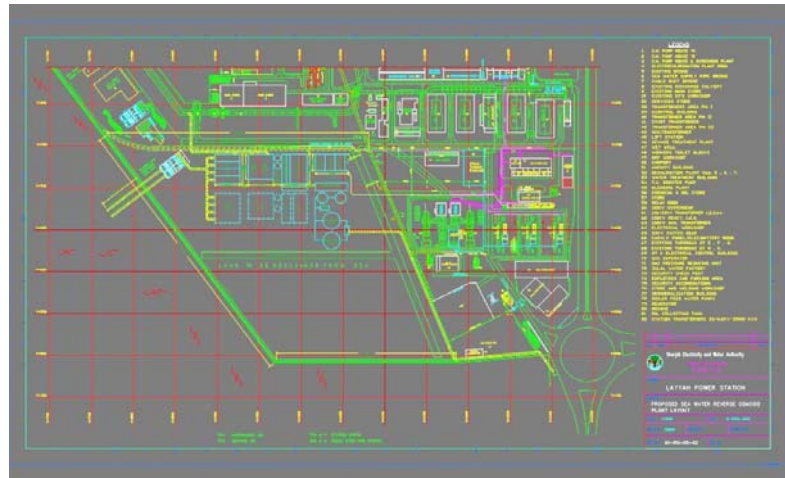
Location
Sharjah, United Arab Emirates

Contract Value - Each
US\$15.5 million

Project Completion
2007

CH2M HILL Role
EPC Contractor

SEWA Seawater Reverse Osmosis Plant at Layyah and Khor Fakkan Power Stations



CH2M HILL is serving as the single source of responsibility for engineer-procure-construct (EPC) services for turnkey delivery of two 22,730 m³/day Seawater Reverse Osmosis (RO) treatment plant. Scope of work includes:

- Engineering Design
- Procurement
- Mechanical and Electrical Erection
- Guarantee of water output
- Guarantee of electricity consumed per m3 of produced desalinated water

The Layyah facility is located within the Arabian Gulf which is known for seawater which is warm in temperature and high in salinity. To ensure adequate pre-treatment, the process design includes 3 mm screening, dissolved air flotation (DAF) and two-stage media filtration. The Khor Fakkan site is located on the Indian Ocean. The seawater RO system for both will utilize high efficiency pressure exchangers for energy recovery resulting in very low energy consumption for an SWRO facility.

Each RO plant capacity is 5 MIGD (6 mgd), while the Layyah RO plant is expandable to 10 MIGD (12 mgd) (approximately 45,460 m³/day).