Customer Success Story

Location: U.A.E.

AMI completes rapid deployment of advanced SWRO + BWRO systems

In arid deserts, high temperatures and exposure to sun poses a challenge for traditional water treatment systems.

Challenge

The client, a large U.A.E. based water supply company, needed reliable, durable water treatment solutions to produce high-quality potable water from seawater.

The project involved the urgent delivery of six containerized systems, four (4) for seawater (SWRO) and two (2) for high brackish water (BWRO), with specific features to withstand the challenging outdoor conditions, including direct exposure to the desert sun.

The system needed to be capable of treating water with a high Total Dissolved Solids (TDS) concentration of 45,000 ppm and produce potable water for human consumption.

Solution

Applied Membranes designed and built state-of-the-art, durable, containerized water treatment solution comprising six (6) containers total.

Four (4) containers include SWRO systems with energy recovery and two (2) containers include high salinity BWRO systems. The overall AMI system capacity is approximately **1 million gallons per day (MGD) (160 m3/h)**.

AMI containerized systems are equipped with climate-control features and protection against external elements. Each 40-foot container is ISO painted with desert sand color epoxy paint, and designed to withstand outdoor conditions, including direct desert sun exposure.

The project was completed and delivered on a rush basis, meeting client timelines.

Key Features:

- Booster pump
- Media filters
- Clean-in-place system
- Chemical injection system
- Interconnecting plumbing and electrical for seamless integration

Results

AMI water treatment systems met client specifications and were effectively designed to meet unique challenges posed by the desert environment.

Tight delivery schedule: The client had a stringent schedule for the delivery of all six containerized systems. Applied Membranes met all timelines, ensuring prompt delivery without compromising quality.

Quality: AMI systems play a crucial role in providing high-quality, potable water, contributing to sustainable water management and public health in the region.

Robust and reliable: Given outdoor placement with exposure to high temperatures, AMI containerized systems were designed with climate control features to maintain optimal operating conditions. Systems were easy to transport and install.

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