



Water Desalination Plant for Potable Water Treatment



THE SITUATION: An Italian global oil and gas company, considered one of the seven “supermajor” oil companies in the world, needed a water desalination plant to provide potable water to a Libyan-based hospital.

LOCATION: Libya

INDUSTRY: Oil and Gas

THE CHALLENGE: A global oil and gas company needed to provide a new potable water source to a Libyan-based hospital serviced by an old, deteriorated utility system.

THE SOLUTION: CECO Peerless provided a containerized (single lift) water desalination plant to reduce the beach well water salinity to desired levels. Specifically, seawater reverse osmosis membrane technology was used to remove unwanted contaminants. Remineralization chemicals were added to adjust permeate water pH levels.

The total package included:

- Multimedia and micron filtration
- Chemical dosing stations
- Reverse osmosis plant
- Remineralization



THE RESULTS:

Through its seawater membrane technology, and by optimizing the design of the potable water package using reverse osmosis simulation software before construction, CECO Peerless was able to provide a containerized plant that achieved the potable water quality required by the hospital. SWRO brine water is now routed to the sea without causing any environmental impact.

“...by optimizing the design of the potable water package using reverse osmosis simulation software before construction, CECO Peerless was able to provide a containerized plant that **achieved the potable water quality** required by the hospital.”