



CASE STUDY (046-P-En)

Power Plant

Seawater Reverse Osmosis Plant for the production of 960 m³/day, Greece

Seawater Reverse Osmosis System

DATE OF IMPLEMENTATION

July 2009

TECHNICAL CHARACTERISTICS

- Lowara Feed Water Pumps 2 x 100 m³/ hr @ 4 bar
- 4 Turbidity Filters TEMAK, TFA2500
- 3 Active Carbon Filters TEMAK TAC2500
- 4 Cartridge Filters 15x40", 1µm
- Cleaning in Place System TWASHI 2000, TCIP4
- Reverse Osmosis System with 64 membranes, (TSW 364)
- Grundfos High Pressure Pump BME/ 132 kW (including Energy Recovery System ERI PX-260 and booster pump)
- Product water quality 200 µS/cm and product water quantity 42 m³/hr.
- Permanent CIP installation. Flush procedure with elevated tanks so that water can flow through gravity in case of electricity outage
- System Control through PLC Simatic S7300 Siemens. There is also the capability of System Control & Data Transfer through Internet

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GENERAL CHARACTERISTICS

Water used for steam generation in power plants (combined cycle plant etc.) requires strict quality standards for purified or deionized water.

TEMAK has carried out numerous water treatment projects producing purified and deionized water in the industry sector as well as in power plants in Greece and abroad. Moreover, TEMAK has significant experience in contemporary technologies used as treatment stages in the production of deionized water, such as ultra-filtration of pre treatment water through ultra-filtration membranes, CEDI (polishing stage) or degassing membranes (stage of removing CO₂ from water before it enters CEDI).

Since 1980, TEMAK has been at the side of local communities covering their needs with reliability and consistency, having a full range of certified water treatment products.

Thanks to the systems manufacture in Greece and the high expertise of its specialized staff, TEMAK is able to offer total water treatment solutions, from study and design to manufacture and installation of required systems.

The 750.000 m³/day of clean potable water or water for general uses, produced daily from TEMAK's installed systems in Greece and 26 abroad countries, constitute the proof of our experience and know-how in water treatment.