

**T**HE water treatment requirements of Dhahran Tower are being handled by AES Arabia, one of the major specialised water treatment companies in the Middle East.

AES' units have been playing a key role in the project right from its early stages as the Saudi-based company was involved in the design, fabrication, supply, installation and commissioning of a 13,209 gpd (gallons per day) reverse osmosis (RO) plant required during the construction stage of the tower.

AES Arabia was also assigned the task of designing, fabricating, supplying, installing and commissioning two 132,087 gpd RO plants as well as a chilled water system treatment plant for the prestigious landmark.

"In addition, we will supply operation chemicals for the RO plants and treatment chemicals for the chilled water system and cooling towers," says Yazan Malki, area manager, Eastern Province.

AES (American Engineering Services), a total water management multinational company, offers water and wastewater solutions through systems as well as specialty chemicals for both municipal and industrial purposes. The company, which counts National Aeronautics and Space Administration (Nasa) among its numerous major clients worldwide, is headquartered in the US and

# AES Arabia tackles water treatment needs

has offices in many parts of the world.

In Saudi Arabia, AES Arabia has a full-scale operation in the water treatment business, with its head office in Riyadh and warehouses in the Central, Western and Eastern regions of the kingdom. Its warehouses are equipped with a full range of components and stock of chemical products to ensure the continuous operation of its installations throughout the country. Its skilled and well-experienced engineers and service staff are always available to meet any regular or emergency maintenance that may be required by its clients throughout the kingdom and neighbouring countries, says Malki.

AES Arabia has a 13,000-sq-m fully-equipped manufacturing facility in Riyadh, which is one of the largest of its kind in the Middle East.

Being certified to the highest international standards of quality (ISO 9001:2008) and ASME U and U2 standards, AES focuses on quality objectives to ensure the full satisfaction of its customers. This objective is met through effective planning of product realisation, and continual improvement of the company services and products using state-of-art technology.

In Saudi Arabia, the company manufactures seawater and brackish water RO plants, skid-mounted chemical injection systems, filtration systems, demineralisers and softeners, specialty chemicals, water treatment packages, industrial waste water treatment systems, packaged sewage treatment plants, grey water systems, a range of water and waste water treatment plants, and chlorination, dosing and ultraviolet (disinfection sys-

tems), among other systems.

The AES seawater RO desalination plants are primarily designed to produce potable water. "However, AES can modify the standard design to suit specific customer

requirements or for other applications such as increasing overall recovery for a brackish RO plant by desalinating the brine reject," says Asad Iqbal Khan, the company's manager for international sales and marketing.

The seawater RO membrane can handle water sources with high dissolved solids of 8,000 mg per litre and above or seawater with total dissolved solids of up to 50,000 mg per litre.

AES has a wide selection of RO membranes in either hollow fibre

or spiral wound types, to suit specific applications. The materials can be thin-film composite (TFC), cellulose acetate or cellulose tri-acetate (CA or CTA) and polyamide (PA).

Khan says that the typical recovery for seawater membrane is 25 per cent. However, AES uses state-of-the-art membranes that are capable of attaining recoveries up to 45 per cent depending on the water analysis and pre-treatment.

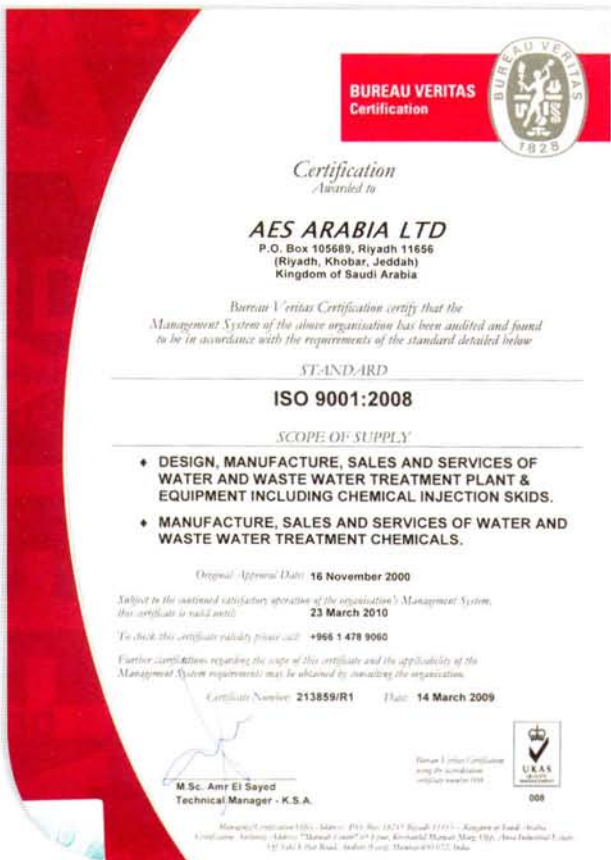
Its exclusive specialty chemicals for all water treatment applications are manufactured in its plant in Riyadh with the expertise provided by American Water Chemicals (AWC) a subsidiary of American Engineering Services.

The manufacturing facility for specialty chemicals consists of all the necessary equipment to ensure that the highest degree of quality is maintained during the production with precise in-process and finished products quality control, he says. The operating procedures and processes are designed to ensure complete safety of operating personnel and are environment friendly.

The company's well-equipped laboratory ensures quality control and also facilitates product development/modification, depending on client/application requirements under the direct supervision of AWC.



**Malki ... AES can meet specific requirements from clients.**





Saudi Arabia's Khursaniyah Gas Plant ... AES Arabia supplied a RO plant capable of treating 272 cu m per day for the project.



AES Arabia has executed several prestigious projects all across the Middle East and North Africa (Mena) region including in Oman, Bahrain, Saudi Arabia, Syria, Yemen, Algeria, Sudan and Iraq. The company has established a solid global reputation with a proven record of success for a wide range of municipal, industrial, commercial and institutional clients by providing solutions to their water and wastewater treatment problems, says Khan.



"The company has been experiencing good growth for the last 15 years and we see the potential for further growth as well," he says.

**Khan ... AES has witnessed good growth.**

AES employs around 300 people and has branch offices in Al Khobar and Jeddah as well as representatives all over the Middle East. "AES is fully committed to improving water quality through innovative technologies using economical means, to suit the environment anywhere in the world. Realising the diversity of needs, environmental conditions, economics, and geography in different countries, we will continue to seek innovative ways to adapt to new and challenging environments and circumstances," says Khan.