

RAW MATERIAL & INGREDIENT PROCESSING



## Abundant savings for Egyptian Fertilizers Company



**INSIGHT**

Egyptian Fertilizers Company (EFC) is a leading global producer and distributor of high-quality nitrogen fertilizer products and industrial chemicals that provides clean, environmentally sound solutions to its customers. Its Suez plant is one of the largest fertilizer complexes in Egypt, producing 1,400 tons a day of ammonia and 5,000 tons a day of urea. It has four different recirculating cooling water systems designed to manage critical process operations.

**INNOVATION**

One of the biggest challenges in open, recirculating cooling systems is a high risk of bacterial proliferation due to ammonia contamination and the high temperature of the cooling tower. This can lead to increased water, energy and chemical consumption as well as:

- Lower production
- Heat exchanger failure
- Microbiologically induced corrosion
- Loss of revenue

Nalco Water provided a comprehensive solution that included on-site expertise and Purate™ Technology, a patented, proprietary chlorine dioxide program that controls biologic growth in cooling towers and other industrial water treatment applications. The treatment program has helped the EFC plant reduce:

- Water consumption
- Maintenance costs
- Corrosion rates
- Chemical usage

In addition, overall plant performance has improved, and safety has increased, due to the replacement of volatile chlorine gas with stable and reliable Purate biocide technology.

**TECHNOLOGY**

- **PURATE™ Technology**

eROI<sup>SM</sup>

ANNUAL SAVINGS

WATER



**192,000 m<sup>3</sup>**

freshwater saved – equivalent to the annual drinking water needs of more than

**175,300 people**

**\$40,000**

in reduced water costs

ASSETS



**\$300,000**

saved due to reduced chemical use

**\$56,000**

saved as a result of reduced corrosion rates

PRODUCTIVITY



**\$100,000**

in reduced maintenance costs

TOTAL COST SAVINGS

**\$496 THOUSAND ANNUALLY**