

# Mobile Water Solutions for Chemelot, Netherlands

## Power | Case Study

### The Client

EdeA is a utility company which was set up to supply the needs of Chemelot, the high tech chemical industry campus in Geleen in the South of the Netherlands. The Chemelot Campus is an international innovation-oriented community where large companies, start-up businesses and educational institutions share knowledge in a creative cooperation.

The businesses operating from the campus are dependent on secure supplies of electricity, steam, compressed air, nitrogen and demineralised water. To achieve this, EdeA operates steam boilers, gas and steam turbine generator sets, nitrogen and air compressors, and two water demineralisation plants, WAFA North and Demi-S.



### The Client's Needs

A maintenance outage for both demineralisation plants was planned for the summer 2012. With the whole Chemelot campus depending on them, and only two days of buffer storage capacity, EdeA could not afford for anything to go wrong which would extend the outage. They turned to Veolia.

### The Solution

Veolia's solution was to supply an AQUAMOVE™ mobile unit for each demineralisation plant. Each unit consisted of a MORO-4x24T reverse osmosis unit with a MODI-15000 ion exchange polisher giving a total capability of 100m<sup>3</sup>/h of 0.1µS/cm demineralised water.



The mobiles were on site for the week of the outage to provide emergency cover to meet the site demand. The MORO reverse osmosis systems generate a permeate typically of conductivity typically less than 10µS/cm which can be polished to better than 0.1µS/cm by a mixed bed.

The MODI mixed bed is not regenerated onsite but, when it becomes exhausted it is returned to Veolia's central media regeneration station. This means that there is no requirement for chemicals or for effluent disposal from the AQUAMOVE™ plant which could interfere with the plant maintenance work.

### The Benefits

- Security of supply
- Minimal loss of production
- No impact on maintenance procedures

## Emergency rental

Continuity for any production cycle is essential. In the case of an emergency, AQUAMOVE™ can mobilise and send to your site a temporary water treatment system within a trailer or container. This can normally be with you in less than 24 hours, freight time dependant. This will either replace or supplement your existing water treatment facility and if required an AQUAMOVE™ engineer will operate the equipment.



In addition, AQUAMOVE™ offers to its customers the PREACT service. This is a comprehensive survey of your water treatment plant to develop a Site Response Pack in the event of an unplanned incident happening. If you are required to call us this ensures the correct equipment and ancillary items are delivered to produce treated water in the fastest possible time.

## Planned temporary hire

Planned temporary AQUAMOVE™ services are typically used for new plant commissioning applications such as steam blowing, chemical filling, temporary production of extra water, maintenance outages etc. Mobile operations may be planned in advance of the requirement, typically contracts may last from one week to 12 months.

## Long-term contract

Thanks to our full on-site service, temporary hire contracts can move to long term contracts (multiple years) if required.

Veolia Water Solutions & Technologies has developed the AQUAMOVE™ service based upon our experience of the needs within the industrial water treatment market. Our aim is to provide our clients with security of supply of this important resource and to allow them to focus on their core business.



AQUAMOVE™, the VWS brand for Mobile Water Solutions, offers a complete range of technologies and services to meet all emergency, planned or long term treated water needs. Some key features are:

- Large fleet of trailers and containers
- Full assistance and availability
- High flow rates capacity solutions
- Continuous production
- ReAct preventive service
- Pure water production: filtration, softening, reverse osmosis, ion exchange
- Wastewater treatment: clarification, dissolved air flotation, MBR, ultrafiltration, evaporation, etc