

# Newhaven Energy Recovery Facility, UK

## Power | Case Study

### The Client

The Veolia Environmental Services Energy Recovery Facility (ERF) at North Quay, Newhaven, UK handles 210,000 tonnes per year of residual municipal solid waste and street cleansing waste from the East Sussex area.

Residual wastes are those that are not reused, composted or recycled. These wastes are incinerated to fuel two 50bar water tube boilers to generate steam which drives a turbine generating 19MW of electricity, most of which is exported to the grid.

The process significantly reduces the volume of waste disposed of to landfill and also allows some of its residue to be recovered or recycled.



### Key Figures

- Newhaven ERF is a key facility within the South Downs Waste Services Integrated Waste Management Service Contract
- It processes around 210,000 tonnes of waste per year
- The facility exports 16.5MWe to the grid powering up to 25,000 homes

### The Client's Needs

The high pressure boilers operate at 43.7m<sup>3</sup>/h steam flow and require the water treatment plant to have an operational capability of up to 4.5m<sup>3</sup>/h of high purity water. Demineralised water is produced on site by an ion exchange plant supplied by the construction contractor, but during a control system modification the plant would be unable to meet normal output quantity and quality. The demineralised water storage was identified as being insufficient to meet the operational requirements for the two days it would take to make the modifications.

### The Solution

Newhaven ERF has a service contract with Veolia Water Technologies which also includes the AQUAMOVE Contingency Plan, so one call to their Account Manager had an AQUAMOVE mobile solutions plant on site within a few hours.



Newhaven ERF had used AQUAMOVE during commissioning and for planned maintenance, so the AQUAMOVE team knew exactly where to set up and connect two MOFI™ ion exchange units. The ion exchange MOFI™ units are regenerated off site so there was no requirement for chemicals or wastewater disposal.

Facilities Manager, Phil Preece, was pleased with the response provided by AQUAMOVE, "The temporary plant helped us out of a situation that could not be avoided. It enabled us to continue running at full capacity while the control system modifications were being implemented, thus allowing the on-site plant to return to normal operation."

### The Benefits

- AQUAMOVE units were on site within a few hours
- Allowed continued waste processing and power generation
- No chemicals or wastewater from MOFI™

## 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 PRACT 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