

# The University of Reading's water treatment refurbishment, UK

## Industrial | Case Study

### The Client

The University of Reading's Knight Building has been the home of the microbiology department since it was opened by the Queen in 1992. It is a purpose-built research and teaching unit for microbiology, including containment level 3 facilities and currently houses the microbiology research groups of the School of Biological Sciences.

The building was renamed the Knight building in 2012 in honour of Professor BCJG Knight, the first Head of the Department, to celebrate 60 years of microbiology at Reading.



### Key Figures

- Critical water treatment systems to be replaced
- Short programme
- Restricted installation space

### The Client's Needs

The steam generators in the Knight Building were due for replacement and the Facilities Department decided to take the opportunity to replace not only the boiler make-up water treatment system but the aging demineralisation plant that supplied demineralised to the laboratory. The main contract for the refurbishment project was awarded to local mechanical and electrical contractors, SSE Contracting.

Among a number of subcontractors was Veolia Water Technologies, whose subcontract covered decommissioning and removal of the redundant plant and supply, delivery, installation and testing of the new £50k water treatment system. The site work would have to be carried out during a short three month window and a number of subcontractors would be on site at one time, all working in a restricted 5m x 5m area on two floors.

### The Solution

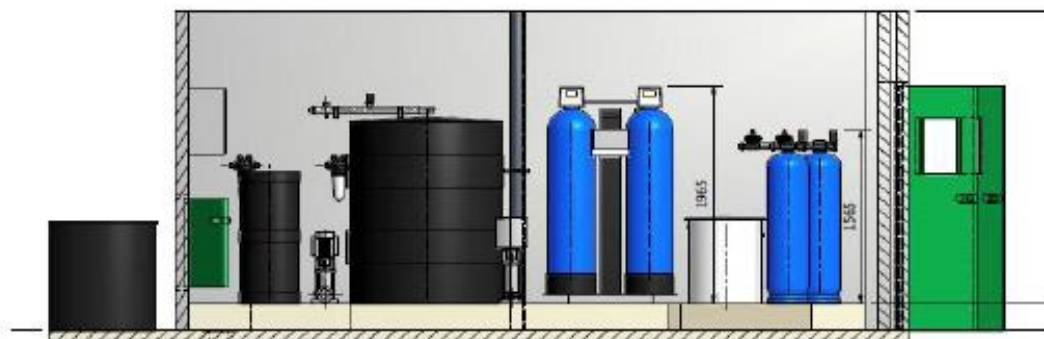
Veolia Water Technologies's solution in terms of plant was straightforward enough: a duplex IonSoft softener to deliver up to 7m<sup>3</sup>/hr of soft water for boiler feed and a Duo Eclipse 300 demineralisation system to supply up to 4m<sup>3</sup>/hr of demineralised water (<20µs/cm conductivity) to the laboratory via an existing ring main



The solution also included improvements of the existing high purity water distribution system: new pumps, new 5µm filters, a UV disinfection unit and an upgraded conductivity meter for the ring main. With the equipment requirements identified and agreed, the project installation within a tight timeframe and small working area was the next challenge. This was carefully overseen by Veolia Water Technologies's dedicated Project Manager.

## The Solution

- Duo Eclipse 300 - up to 4m<sup>3</sup>/hr of demineralised water (<20µs/cm conductivity) to the existing ring main
- Duplex IonSoft – up to 7m<sup>3</sup>/hr of softened water for boiler feed



To ensure a successful project delivery, all specifications, designs, equipment, testing, installation and commissioning were meticulously planned out, in line with the site's policies and procedures. In this working environment, health and safety is of paramount importance. This is an area of particular expertise for Veolia Water Technologies, who to date have received nine consecutive RoSPA Gold Awards recognising a very high level of performance, demonstrating well developed occupational health and safety management systems and culture, outstanding control of risk and very low levels of error, harm and loss.

Veolia Water Technologies's dedicated Project Manager also took the precaution of having one of their AQUAMOVE™ mobile treatment plants on standby to ensure that high purity treated water would be available for the university if installation work was delayed for any reason. In the event, it wasn't needed and the project was completed on time and to the complete satisfaction of The University of Reading's Facilities Manager, Paul Harding.

## The Benefits

- Dedicated project management
- Ability to work with other contractors
- Project completed on time

### **Veolia Water Technologies**

Windsor Court, Kingsmead Business Park,  
High Wycombe, HP11 1JU  
Office. +44 (0)1628 897000  
[www.veoliawatertechnologies.co.uk](http://www.veoliawatertechnologies.co.uk)