

# Practical training for wastewater plants and anaerobic digesters

## Case Study - Bespoke training programmes for Yorkshire Water

### The issue

Finding the right training vehicles can be hard. Some consultants are good at teaching a set curriculum, but their knowledge of the subject matter is not strong. Some institutions offer valuable but academic and theoretical learning. In-house training departments, where they exist, may not be up to speed with current best practice. There is a concern of the training going stale – if they are running courses using internal resources only then how do they keep improving it?

Business-focused learning has always been a priority at Yorkshire Water, with recognition that improved individual performance contributes to achieving overall business objectives. One of the ways Yorkshire Water demonstrates their commitment

is by investing in their people so everyone develops to their full potential. Yorkshire Water was keen to move forward with a customised programme provided by a well-respected training company that was deeply entrenched in the subject matter at hand; wastewater plants and anaerobic digestion.

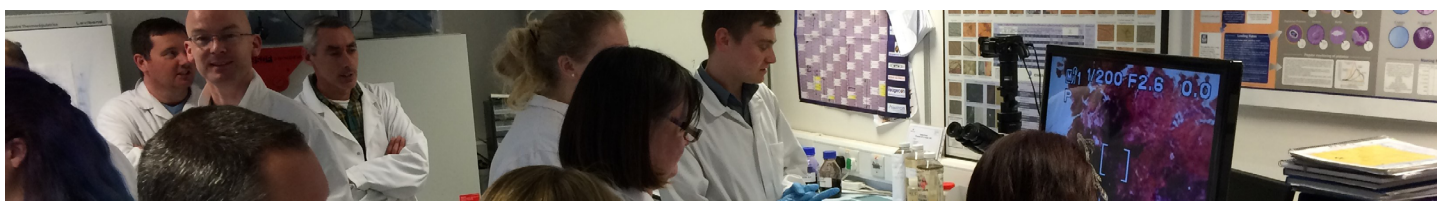
### The solution

Aqua Enviro, a SUEZ company, is in a unique position. It has extensive knowledge and operational experience, consulting across the waste, wastewater, energy-from-waste industry. It is also a training and conference company. In recognition of the years of sector experience, Yorkshire Water approached Aqua Enviro to help design and deliver customised training to upskill employees.



Additionally, they wanted these employees to champion best practices within their site operational areas.

The Aqua Enviro team worked directly with the Yorkshire Water Learning & Development department to design a series of courses aligned with their business objectives and operational challenges. Bespoke course content was developed. This took into consideration their deployed technologies and developing needs. The course materials were reviewed by the Yorkshire Water technical team to ensure everything was pitched appropriately and of requisite technical standard.





The programme incorporated four delivery platforms, each targeting different employee groups, to ensure everyone received the training they needed.

### Foundation training

A highly targeted presentation available to all staff with the aim of facilitating conversations across the business using common language

### Specialised modules

Upskilling the operation's teams on new technologies and technology platforms introduced at Yorkshire Water sites, ensuring assets are operating at peak performance

## DELIVERY PLATFORMS

### Remote technical training

Half day courses with tailored courses on activated sludge and anaerobic digestion

### In-person courses

To help enhance scientific knowledge and construct performance optimisation strategies based on real world experience on:

- a. Thickening and dewatering
- b. Energy management in operations
- c. Inlet works and primary tanks
- d. Laboratory tests including microscopic analysis of activated sludge

As part of the in-person courses a series of improvement projects around energy and chemical consumption were identified. These included:

- *TRIAD site-specific plans:* Learning how to reduce TRIAD energy costs by understanding and evaluating the process risk of turning down or even switching off plant items such as blowers and pumps
- *Polymer make up, blending and dosing optimisation:* After electricity the cost of chemicals are the highest. The teams were taught how to optimise blending, mixing and dosing in order to save up to 10%

- *Biogas, gas bag and CHP optimisation strategies:* Understanding how to manage gas holder levels to manage offset peak tariff electricity consumption depending upon storage capacity
- *Best practice in operations:* Operating machinery, such as dewatering equipment outside of peak tariff times

### The results

The client was extremely satisfied with the quality of training. The employees rated their experience highly; Matt Smyth, Technical Director says "Close collaboration has been at the heart of this project."

*From initial scoping through to delivery this has ensured the training was on point, well received and produced valuable outcomes. I'm looking forward to working further with YW to help them achieve their vision of maximising staff potential".*

What was particularly impressive was the immediate and direct impact of this highly interactive training programme. Real-life projects were brought to the table by the attendees. In collaboration the Aqua Enviro trainers and Yorkshire Water employees developed strategies for operational optimisation.

## Differentiating factors

Aqua Enviro is a training company, a conference organiser and a hands-on consultancy all within the wastewater industry. This allows them to be up to date, at the forefront of theoretical and operational techniques that genuinely help improve performance of individuals and the client companies.

The regular training courses and programmes are highly relevant and they pride themselves in being able to provide programmes in multiple formats as well as ones that are tailored and flexible to meet the individual learning and development needs of clients, with a highly collaborative approach in course design.

The collaborative and highly interactive nature of programmes also helps identify plant and process optimisation opportunities, which are a key value addition for clients.

## The future

Aqua Enviro - SUEZ offer a range of regular and bespoke courses. We look forward to collaborating and hearing about specific staff training needs covering technology, plant and site operations, to help build teams that will deliver performance and operational excellence.

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**It was an absolute pleasure to work collaboratively with Aqua Enviro, to help deliver concise training to our front line operations, helping their understanding of site actions and processes. The training was a great mix of theory and on-site training, which was easy to digest, learn and adopt whilst meeting all our expectations. Feedback from all course members was always positive and offered them the assurances they needed. I cannot recommend Aqua Enviro highly enough, and look forward to working with them again.**

*Alan Ayliffe, Wastewater Portfolio Project Manager, Yorkshire water*



### About Yorkshire Water

Yorkshire Water is a water supply and treatment utility company servicing West Yorkshire, South Yorkshire, the East Riding of Yorkshire, part of North Lincolnshire, most of North Yorkshire and part of Derbyshire, in England. With their 31,500km network of underground pipes they provide 5 million customers with over 1.24 billion litres of water every day.

### About Aqua Enviro

Aqua Enviro is a leading, specialist environmental consultancy, conference organiser and training provider. Aqua Enviro has its own laboratory, developing solutions for even the most complex issues. Water, wastewater, bio-resources and organic waste are just some of the sectors that their services cover.

### About SUEZ

Since the end of the 19th century, SUEZ has built expertise aimed at helping people to constantly improve their quality of life by protecting their health and supporting economic growth. With an active presence on five continents, SUEZ and its 35,000 employees strive to preserve our environment's natural capital: water, soil, and air. SUEZ provides innovative and resilient solutions in water management, site remediation and air treatment, optimising municipalities' and industries' resource management through "smart" cities and improving their environmental and economic performance.



### Aqua Enviro

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