

effluent management and treatment

helping companies achieve and sustain the highest standards across
the entire industrial water cycle

industrial



safety is always a priority

A focus on Health & Safety, Quality and the Environment (HSQE) lies at the heart of everything we do. Our job is to help our customers meet their HSQE commitments, and we believe our people and those we work with have the right go home safely at the end of every day. Our organisation and operating procedures comply with the most stringent standards, including:

- ISO 14001
- ISO 9001
- ISO 17025
- OHSAS 18001
- CDM2015

We are Safe Contractor registered and hold the Investor in People award. In 2016, we were proud recipients of the prestigious RoSPA President's award for 11 years consistent excellence in occupational health and safety.



comprehensive effluent management solutions

Ensuring that wastewater is managed, treated and safely discharged within regulatory standards is a critical element in many industrial processes. Failure at any stage of the effluent management process can compromise operational efficiency, site safety and the local environment. Breach of discharge consents can lead to prosecution or plant closure.

With extensive experience in industrial water management, SUEZ Water UK provides a fully comprehensive range of troubleshooting, consultancy, treatment, design, construction, operations, maintenance and optimisation services to businesses of all sizes, in all sectors. We help companies achieve and sustain the highest standards across the entire industrial water cycle – even returning water to the environment cleaner than it was extracted. Our capabilities encompass every aspect of the effluent management process, from the development and manufacture of chemicals to the provision of laboratory testing services.

Our ongoing research and development programme ensures we can overcome the challenges our customers face including changing business and regulatory requirements, rising water costs, and advances in process and treatment technology. As part of the global SUEZ organisation, we invest €74 million a year in our research facilities around the world to develop innovative solutions to improve the efficiency, reliability, longevity and security of our customers operations. In the UK we have two innovation centres located in Daventry and Grangemouth.

Effective management of effluent streams also plays an increasingly important role in helping organisations meet their sustainability objectives. Our holistic approach helps clients identify and capture performance improvement opportunities across their processes, from water saving and energy recovery measures to the re-use of wastewater in process systems.



**capabilities that encompass every aspect
of the effluent management process**

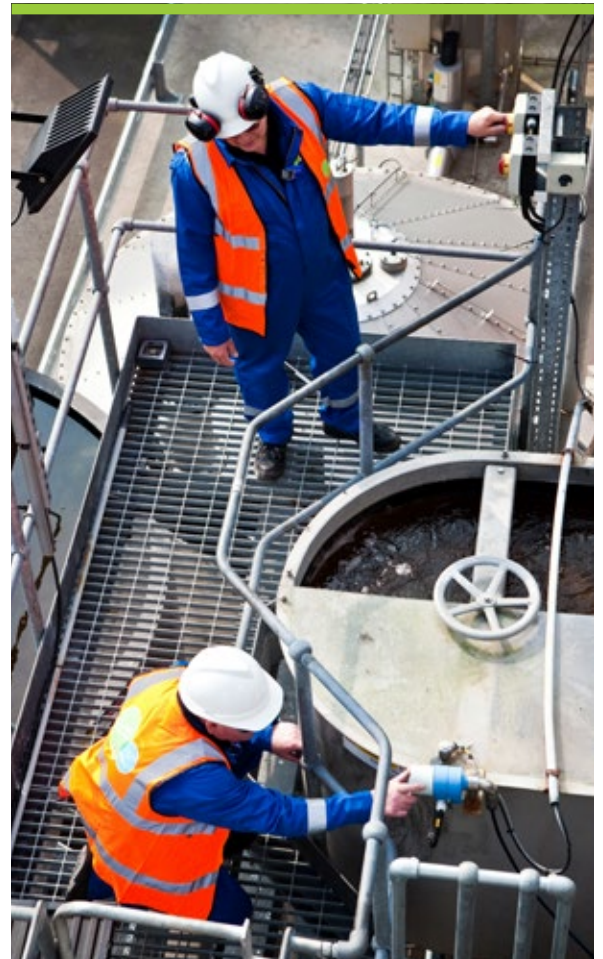
managing the complete industrial water cycle

taking a holistic approach to water and wastewater

Effective management of industrial water processes requires focus on the complete water cycle, from supply and pre-treatment, through its journey in and around the production process, and then onto effluent treatment so it can be safely discharged or reused back in the production process.

We understand, monitor and continually optimise every aspect of that cycle, considering the impact of equipment choices, operating parameters and maintenance decisions on overall site performance. This holistic approach allows us to reduce capital and operating costs while maximising process efficiency and the reliability of customers' water management activities.

Our risk assessment, troubleshooting and water audit services bring clarity to your water treatment requirements – allowing you to see the bigger picture and make the right equipment and process management choices. We can support our customers in every type of project in relation to their water and wastewater systems, from the design and installation of new facilities through to capacity expansion and capability upgrades to operation, troubleshooting and maintenance of existing infrastructure.



▶ case study: large brewery in UK

Since 2009, we have worked in partnership with one of the UK's largest brewers. For two of their breweries we have provided a comprehensive operations and maintenance solution to optimise the performance of their systems through applied best practice techniques and key improvement projects.

For example, when we first started working with the customer, it was experiencing inconsistencies in the final effluent characteristics causing it to breach its regulatory compliance levels. SUEZ worked with the customer and developed, tested and implemented a full complete turnkey solution, ensuring that the sites was 100% compliant with its environmental regulatory compliance requirements.

We have also implemented a number of innovative improvement projects including; extensively upgrading one of their sites to manage an 80% increase in effluent flow resulting from a significant growth in production, maximising energy recovery, and providing crisis management during localised flooding.

Our partnership approach and our constant drive to optimise a plant's performance, has enabled our customer to concentrate on what they do best, brew beer.



supporting the full plant lifecycle

engineering, project management, operations and maintenance services



Engineering and project management

Our integrated projects and engineering team have a comprehensive track record in managing and delivering a broad range of projects, from small to multi-million pound contracts across the UK and Europe. We have the skills and technologies to deliver value throughout the project lifecycle with vigorous planning, co-ordination, monitoring, management and overall execution.

Site services

Our dedicated Site Services Team has the experience and ability to offer project management, site supervision, project delivery as well as maintenance and repair for effluent management and treatment systems of all types. Each project is rigorously planned, co-ordinated, monitored and managed from inception to commissioning.



Operations and maintenance

Every day we make a difference to the 200 water and waste water systems that we operate and maintain across Europe. Our highly skilled and experienced team work hard to make performance, financial, health, safety and environmental improvements to our customers' systems through innovative, sustainable solutions. We develop long-lasting partnerships, giving our customers the confidence to focus on their own core business while knowing their systems are in capable hands.

Technical services

We help customers solve the most challenging effluent management problems. Our unrivalled water audit and risk management capabilities mean we quickly get to the underlying cause of the issue. We can then collaborate with you to develop solutions that are both deliverable and sustainable.



Laboratory services

Our UKAS accredited SUEZ Water Sciences Laboratory is dedicated to the analysis of industrial water, wastewater and sludge; 24 hours a day, 7 days per week. We offering an extensive range of specialised innovative services including pilot testing, flow and load surveys, microscopy, membrane autopsy and investigative studies, designed to improve plant performance and reduce costs.

giving our customers the confidence to focus on their own core business, knowing their effluent systems are in capable hands



► case study: growing microbrewery

A successful growing microbrewery wanted to double its production from 90 barrels a week to 180. In a rural location off the mains drainage system, the company needed a secure on-site treatment system that could process variable effluent for safe discharge to the local river. The natural beauty of the site demanded a bespoke solution with minimal visual impact.

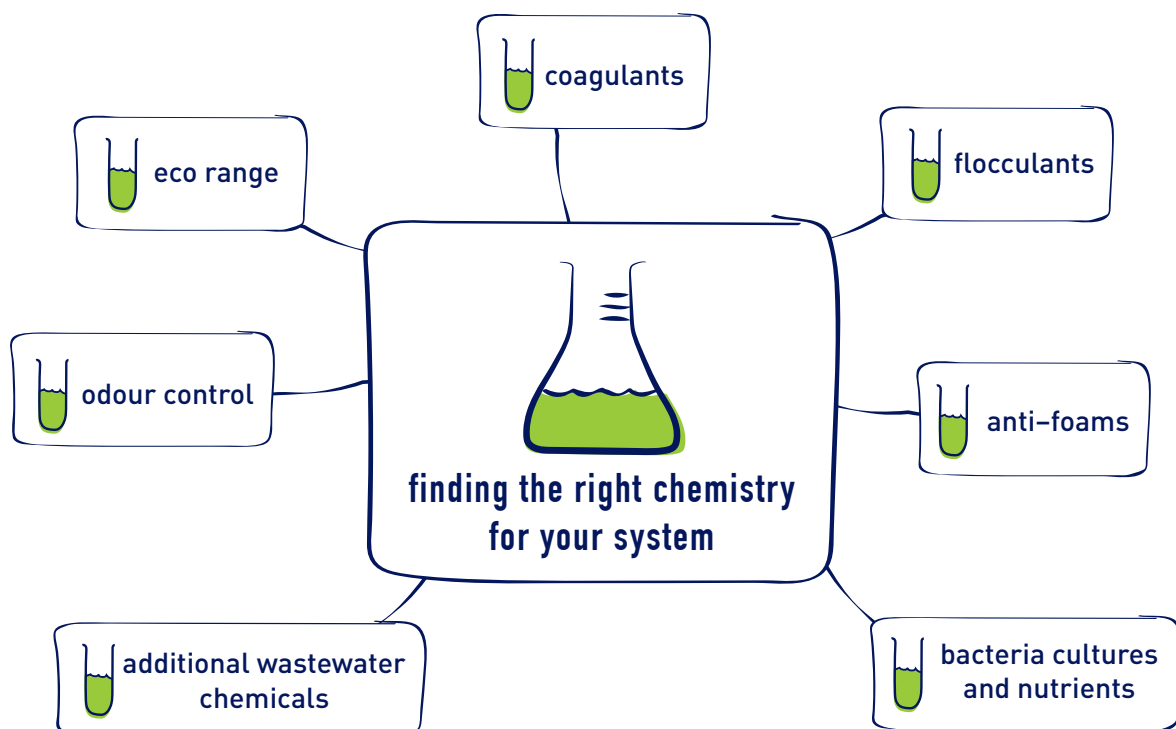
SUEZ worked with the customer and carried out a full review and site evaluation to identify the right solutions that would meet the customer's expectations and the demands of the site. We then designed, supplied, installed and commissioned a new 200m³/ week effluent treatment plant that replaced the previous septic tank. The compact plant has been built completely underground to protect the surrounding view. It is able to manage the highly fluctuating flow and loads that occur when brewing different beers, particularly the variable high strength BOD (Biological Oxygen Demand) levels in the effluent. Access to the site was limited, only accessible down a single track country road, therefore the plant also had to be compact and easy to transport.

the right chemistry

The details matter in effluent treatment performance, and those details include not only the choice, composition and quality of the chemical and biological products used but also how they are used. We formulate and supply a wide range of standard and bespoke treatment products in our specialist manufacturing facilities and advise how to best use these products for optimum performance, allowing us to meet the unique requirements of each customer and each site we serve.

As part of our initial evaluation, our team of effluent consultants can carry out field jar tests on your site. This can identify if the chemistry in your system is right which will help ensure optimum performance.

Our product range encompasses all aspects of effluent treatment. It includes chelating agents, coagulants and flocculants optimised to suit specific site requirements; products for biological treatment; pH control and antifoaming products; high performance polymers for sludge dewatering; and a full range of odour control materials.





▶ case study: 4 x increase in automotive effluent treatment capacity

A leading UK car manufacturer faced high costs to transport and treat its effluent offsite when it found its newly installed effluent treatment plant could not keep up with the demand generated by its paint shop area. To evade rising operational costs, the company needed a resolution and approached us for our expert advice.

After evaluating the installed equipment and current operating regime, we made changes to the chemical treatment programme used at the site to make it simpler, safer and faster. These changes eliminated the use of highly corrosive ferric chloride and dramatically reduced the need for caustic soda. Further changes to the operation of the system reduced the treatment schedule from 14 hours to 2 hours per 8 tonne batch, allowing the system to meet demand by processing four batches every day instead of the previous one.

By optimising the water treatment chemistry, the need for offsite effluent treatment has been removed, the performance of the plant has been optimised, and operating costs have been reduced, thus enabling the customer to cost effectively meet its production demands.

meeting the needs of our customers

services and support for all aspects of effluent management

Our goal is to support your business needs – understanding your challenges, identifying solutions that add value and reduce business risks, and delivering results. We pride ourselves in the long-term partnerships we develop with our customers in the UK, and across the world.

Whatever your effluent treatment needs, we can help. From sample analysis to a comprehensive site water audit, risk assessment and chemical optimisation. From troubleshooting to full service operations and maintenance outsourcing. From capacity increases or the replacement of ageing equipment to the design and construction of the treatment plant for a brand new industrial site.

So whether you need to meet tighter discharge consent conditions, reduce treatment costs or find ways to recover energy and reuse wastewater, SUEZ Water UK can provide the solutions you need.



about SUEZ

SUEZ Water UK is part of SUEZ, an organisation with more than 150 years of experience in water treatment and waste management. SUEZ specialises in securing and recovering resources to provide proven solutions that enable its customers to address resource management challenges.

70
countries

80,000
employees

323,000
industrial and business customers

65,000,000
people benefiting from
sanitation services

92,000,000
people supplied with
drinking water

10,000,000
people supplied with drinking
water from desalinated seawater

14,000,000
tonnes of waste recovered

74,000,000
euros invested in
resource-focused R&D

5,138
GWh of energy generated from
waste each year around the world

resource revolution

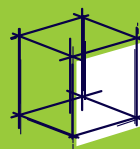
At the heart of SUEZ's ethos is the Resource Revolution, which aims to overcome the challenges presented by the increasing scarcity of natural resources.

the revolution is:



circular

because it aims to regenerate resources that are essential to life and the future according to the principles of the circular economy.



concrete

because it involves tangible and innovative actions to secure resources.



collaborative

because it engages everyone who contributes, each at their own level, to better manage and secure resources for the future.

SUEZ is working to promote innovative technologies and thinking to save for future generations. For example, it calls on the world to embrace change in our water consumption habits, rethink mass waste-creating production methods and develop sustainable societies. In particular, SUEZ can help hospitals and life sciences facilities to meet their specific corporate social responsibility policy targets through audit and consultancy services.

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