



**WCS** Group

The H<sub>2</sub>O experts

MARLOWE Critical Services

-  WATER TREATMENT
-  WATER HYGIENE
-  AIR HYGIENE
-  ENGINEERING
-  TRAINING SERVICES



## Food for thought

**WCS** Group is the perfect formula for **water treatment** solutions



## Pure quality is food and drink to WCS Group

Food and beverage manufacturers and processors are constantly striving to optimise production whilst achieving the highest levels of quality and compliance. That's why WCS Group has raised the bar when it comes to water treatment, systems control and Legionella risk management. We strive to improve the efficiency of plant operations, protect employees as well as the environment and, ultimately, make our customers more competitive.

## What do we do?

- We bring deep industry knowledge to food and beverage customers to help them optimise the efficiency and performance of plant and equipment, safely and reliably
- We facilitate customer site inspection demands
- We ensure compliance with ACoP L8 and HSE guidelines
- We reduce energy and water use and optimise processes, systems and chemical control – making customers more competitive

## How we deliver

Our people are engineers and water treatment system engineers with extensive experience and understanding of food (ready meals, fresh and frozen) and beverage companies. We apply outstanding system risk protection from corrosion, scale and bacteria as well as Legionella control through tailor-made risk assessment, chemical dose and water treatment solutions for each individual plant configuration.

- Closed heating and chilling systems
- Cooling towers and steam boilers
- Chemical cycle, dosing, supply and monitoring
- Sampling, testing and recording
- Treatment – legionella control, disinfectant and cleaning
- Basic and Advanced ACoP L8 training and IOSH training

## Why WCS Group?

- We bring supplementary technical knowledge and best practice
- Solutions are tried and tested but unique to your site / equipment and your starting point
- We can improve asset management and life cycle enabling new levels of performance
- Sustainable solutions to BSI ISO 14001, BSI ISO 9001 from Investors in People
- Full web-based water treatment communication and control 24/7 system monitoring

## National coverage, local service

Technological advances are shared nationally but service is managed by local engineer teams who are familiar with specific sites and territories.

## Food and beverage experience includes:



## A Marlowe Critical Services company

WCS Group is the 'Water Treatment and Hygiene' division of the Marlowe Critical Services Group owned by parent Marlowe plc. The Group provides one access point for specialist 'highest standards' across 'Fire & Security', 'Water Treatment & Hygiene', and 'Air Quality' – three divisions can be accessed singularly or in combination. The Group shares many common customers and collectively employs 1,100+ specialists, servicing 10,000+ customers, carrying out 500,000+ service visits and helping manage over 10 million assets for circa 6% of the UK's 1.8 million non-residential buildings.

**One name. One standard. Everywhere.**

Rapid new business enquiry:

**Phone: 0113 200 5214**

**Email: alex.winter@wcs-group.co.uk**

### Case study 1

#### **Healthier results for sugar and animal feed producer**



#### **Situation**

A large UK food manufacturer and processor uses significant water and energy to maintain 24/7 365 days per year operation. Water treatment risk management, hygiene and Legionella control are high priority strategic risks requiring the very best solutions tailored to plant and equipment and sites.

#### **Result**

Site audits, strategic and operating risk assessments and process improvements have been used to identify, communicate and manage risk. Water usage and chemical usage is now down significantly. System operating efficiencies have been identified and realised. A number of HSE inspections have been carried out with successful outcomes. Improved visibility of monitoring data has increased standards of hygiene, compliance and control of operating risk. WCS Group now handle water treatment, water hygiene and air hygiene across all UK sites.

### Case study 2

#### **The fat of the matter**



#### **Situation**

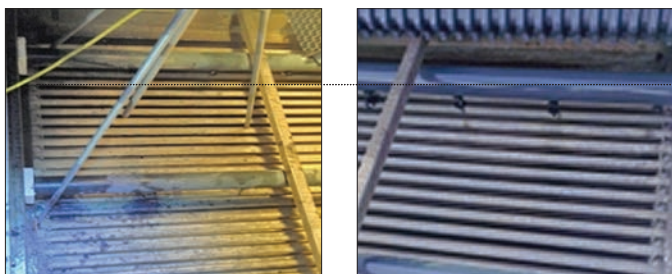
A company undertaking a substantial system investment programme, operates a steam rising plant for the processing of fats. However raw water quality (very high natural alkalinity) was causing the company to miss its planned operating process KPIs.

#### **Result**

WCS Group conducted a cost-benefit analysis for a reverse osmosis plant and confirmed pay-back would be less than nine months. Further system and process improvements were identified in parallel enabling the company to realise fuel savings on steam boiler operation, reduced water and chemical use and more efficient operation of water cooling towers. Blow downs were also reduced and additional caustic dosing was fitted to the boiler feeders to maintain far lower alkalinity. Corrosion monitoring was also installed on the cooling circuit to ensure that treatment was effective.

### Case study 3

#### **Crisper production for freshly prepared salad and processed vegetable supplier**



#### **Situation**

A company focused on the supply and processing of freshly prepared salad and vegetables, wanted to reduce the number of Log Books whilst remaining ACoP L8 compliant. They also wanted to obtain better insight from data, sampling and operating practices.

#### **Result**

WCS Group introduced 'UP2Date' – a web-based water treatment communication and control 24/7 system monitoring tool enabling automated record keeping and full analysis. The system enabled all appropriate colleagues full access to, and a greater understanding of data and operating practice implications. It also identified scaling in the condenser tubes resulting in deteriorating operating performance and risk of bacteria beyond the tolerances set by the company. WCS Group ensured the system was thoroughly cleaned and introduced new scale control practices to minimise scale and restore pH operating values to target.

### Case study 4

#### **Refining systems for food manufacturer with multiple brands and UK sites**



#### **Situation**

A company was unhappy with the lack of proactivity from an incumbent water treatment company. They wanted more attention on chemical cycles, dosing and the introduction of new technology and practices. Onsite staff were also poorly trained on associated maintenance they handle regularly in-house.

#### **Result**

WCS Group conducted site and risk assessments to establish an asset register, interdependence of systems and equipment and operating and performance benchmarks. System improvements were agreed impacting water treatment, chemical make-up, dosing, monitoring and hygiene. Cleaning schedules were updated. In-house staff training was conducted. Water cooling tower cycles were changed. Service reporting was increased. A chemical dosing WebMaster system was installed and 'UP2Date' introduced to ensure better reporting, communication and understanding of data and compliance. Overall operating expenditure efficiencies were realised within 12-months in addition to improvements in compliance.

## Case study 5

### **Playing it cooler**



#### **Situation**

A food manufacturer wanted to improve the level of sophistication and effectiveness of water treatment and cooling across several sites. In addition, more robust Legionella control and compliance was looked for in response to a combination of aging plant and new equipment investment.

#### **Result**

Site surveys and risk assessments were carried out to benchmark current performance and help set new, improved operational performance targets. Several water cooling towers were refurbished incorporating new technology and drift pack eliminators, as well as installation of state-of-the-art critical cooling systems with the ability to raise alarms if tolerances were not met. All data was recorded and accessed via a smart web-based communication system introduced by WCS Group – this enabled better understanding, decision making and compliance.

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## Case study 7

### **A meaty solution for Waitrose**



#### **Situation**

A well-known meat processor operates dedicated sites to supply Waitrose with over 400 products including fresh pork, bacon, sausage, cooked meats and lamb. They were reviewing operating KPIs for a boiler and cooling systems on one site and wanted a second opinion.

#### **Result**

WCS Group benchmarked equipment performance with other "best in class" food production sites and advised scope for operational improvements and lower running costs. Ten years on, today WCS Group supplies a one-stop shop solution ensuring new levels of absolute site reliability, operating efficiencies and compliance. We manage the boilers and cooling systems, water cooling tower maintenance, sample coolant discharge for UK consent, effluent, water softening, chemicals, dosing and delivery, pipework modifications and all water treatment, water hygiene, Legionella control and related safety. Three subsequent HSE inspections have found "No errors or improvement issues".

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## Case study 6

### **Bakery improvements a piece of cake**



#### **Situation**

A well-known UK bakery was experiencing time-consuming record keeping as a result of operating two steam boilers and a cooling tower on site and trying to fulfil ACoP L8 requirements for water hygiene monitoring. They required a more efficient and interactive system to provide evidence of compliance and control.

#### **Result**

WCS Group installed a WebMaster control system coupled with Walchem analytical sensors and integrated communication equipment. These improvements enabled 'smart' remote monitoring and control providing safe, secure and reliable data and reporting. The system was configured to match the client's operating requirements. Data is now logged automatically every 30 minutes including water usage, chemical cycles and information can be instantly analysed and printed for insertion in to Log Books. The system paid for itself within 18 months and helped prepare for customer site visits and inspections.

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## Case study 8

### **Everyone pleased as pie**



#### **Situation**

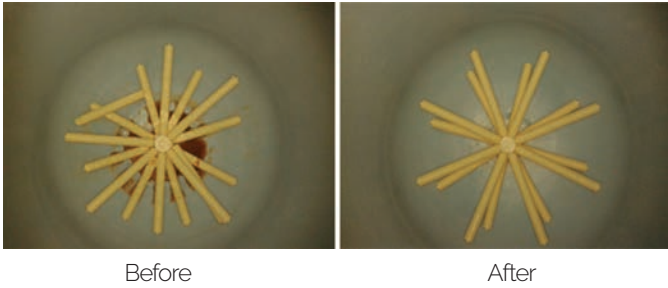
A popular UK 'posh pie' manufacturer wanted to enhance production and improve operating practices to expand the business. It asked WCS Group to collaborate on possible production enhancements and likely effects and ROI.

#### **Result**

WCS Group installed Batching Water Metres that enabled predictable, accurate stop / start water measurement. This allowed the Production Manager to dramatically increase the rate of production. Pipework modifications and remedial works were advised and completed which ensured full compliance with 316 stainless steel installation guidelines. WCS Group now handle water treatment, water hygiene and regular testing for the site operator ensuring enhanced reliability, exacting compliance and sustained higher production.

## Case study 9

### **Hammering out the problem**



#### **Situation**

Processing 1.6 million chickens every week across multiple sites, a large international meat processor was experiencing severe water hammer in the pipework as well as problems with a Triple 48" Water Softening system. They required a solution as part of a multi-million efficiency and technology upgrade programme.

#### **Result**

WCS Group dealt with broken control valves and internals within the resin vessel and resin loss by emptying all vessels and replacing broken internal distribution components. Layers of graded support gravel were added to keep the laterals in position. Vent buffers were re-piped and installed on all of the actuator valves to dampen down the opening and closing time for the valves. We added additional brackets for pipe support. Finally, we tested and handed back the system with no water hammering and an improved, more efficient water softening system. We have also advised, managed and delivered other system control improvements for water treatment and Legionella control compliance.

## Core services



### WATER TREATMENT

Cooling Tower Systems

Evaporative Condensers

Steam Boilers

Low and Medium Pressure

Heating Systems

Chilled Water and Cooling Systems

Pre-Commission cleans

Pre-Treatment Plant, Dosage,

Chemical Cycle and Control

Remote data logging

Web-based electronic log book



### WATER HYGIENE

Legionella Risk Assessments and

Water Hygiene Surveys

Monitoring / Inspection Contracts with

Log Book Management

Remote temperature monitoring

Sampling and Analysis

Cleaning and Disinfectant Works

Remedial Works



### AIR HYGIENE

Air Hygiene Risk Assessment Survey

Indoor Air Quality Monitoring

Cleaning and Treatment of

Air Handling Equipment



### TRAINING SERVICES

eLearning

WCS Group / IOSH / COSHH

training

On-site training for bespoke needs



### ENGINEERING

Design and specification for

water treatment

Installation

Reverse Osmosis plant

Cooling Tower maintenance

Plumbing and remedial works

Installation of water softeners

Pre-treatment plant

Closed system chemical cleaning

and flushing



Cert No. 11011  
ISO 9001, ISO 14001,  
OHSAS 18001



[www.wcs-group.co.uk](http://www.wcs-group.co.uk)

WCS Group is a trading name for WCS Environmental Ltd, registered in England and Wales (Number 02184649) at 20 Grosvenor Place, London, SW1X 7HN.  
Head Office – Bristol Road, Cromhall, Gloucestershire, GL12 8AX. Offices – Basildon, Brackley, Leeds, London, Newcastle upon Tyne, Risleigh, Swansea. The WCS Group is a portfolio company of Marlowe plc.