

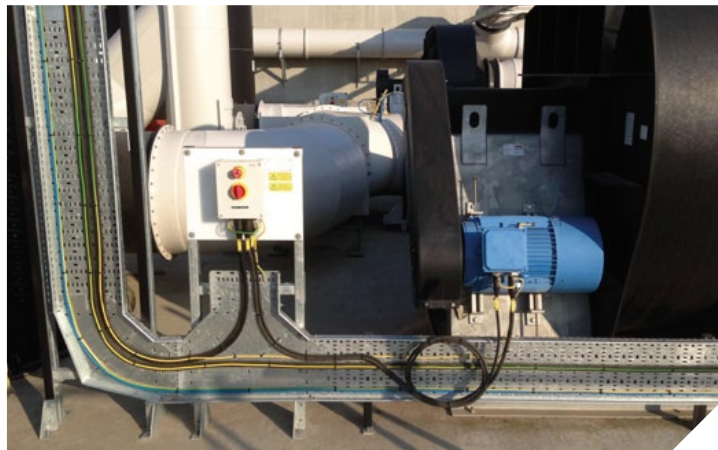
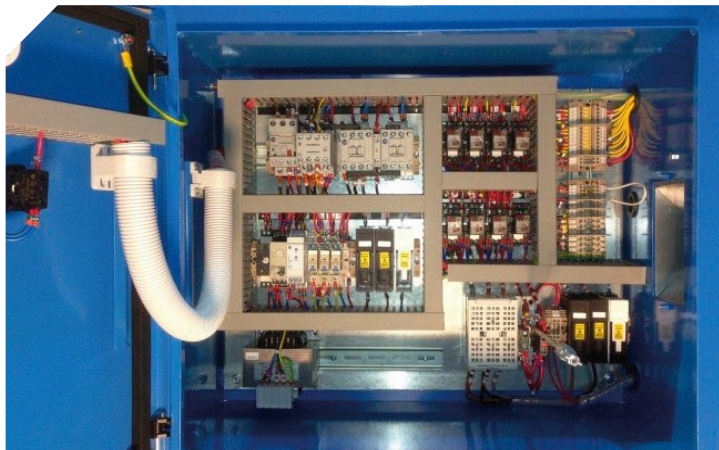


CROSSNESS SEWAGE TREATMENT WORKS

CLIENT: ANUA
LOCATION: ABBEY WOOD, LONDON
PROJECT TYPE: WATER & UTILITIES

CROSSNESS SEWAGE TREATMENT WORKS (STW) IN EAST LONDON IS ONE OF THE LARGEST TREATMENT WORKS IN THE UK, SERVING APPROXIMATELY TWO MILLION PEOPLE. A £145M UPGRADE PROJECT FORMING PART OF THE THAMES WATER LONDON TIDEWAY IMPROVEMENTS PROGRAMME HAS RECENTLY BEEN COMPLETED.





THE UPGRADE AND IMPROVEMENT WORKS CARRIED OUT AT CROSSNESS STW NOW ENABLES THE SITE TO TREAT 44 PER CENT MORE SEWAGE, SIGNIFICANTLY REDUCING THE AMOUNT OF STORM SEWAGE THAT OVERFLOWS INTO THE RIVER THAMES DURING HEAVY RAINFALL WHEN THE WORKS BECOMES OVERLOADED.

THE ISSUE

Sewage treatment works and pumping stations have the potential for causing odour issues which can be a nuisance for nearby residents. Sewage is itself an odorous substance which requires treatment quickly so that it does not decay within the treatment process, which could increase odour levels.

As part of the recent upgrade works at Crossness STW, several new odour control systems to significantly reduce odour levels around the works formed a major part of the project.

ANUA were appointed as the odour control specialists to provide processing plants for the treatment of odour in several areas around the works including the impressive inlet works, primary settlement tanks and thermal hydrolysis plant (THP). Part of their supply included a full electrical package consisting of control and automation of the processing plant, control panels, instrumentation and site cabling.

THE SOLUTION

Kemada designed and supplied fully operational systems comprising of Form 4 control panels fabricated in stainless steel and housed in GRP kiosks. Each control panel incorporated a programmable logic controller (PLC) for complete control over each system and

communication to the works SCADA system. Large extract fan motors and irrigation pumps were just some of the major components. Various instruments covering primary and backup level control, air flow, water flow and hydrogen sulphide (H₂S), formed part of each processing plant and were fundamental to the operation.

Kemada carried out the full electrical site cabling design and installed whilst construction works were ongoing. Cable containment and SWA cabling was installed between each control panel to all plant items, instrumentation and actuated valves located around each plant. As an NICEIC approved contractor, our electrical division is highly skilled in installing, testing and inspecting to BS7671 and can offer a wide range of electrical services within the Water industry. In addition, Kemada carried out testing and commissioning of all odour control systems to ensure correct operation against the design.

THE OUTCOME

From initial design to handover, the works were carried out over an 18 month period. Working within the stringent quality, health & safety and environmental constraints of the water industry, we have successfully completed many projects similar to Crossness STW for some of the UK's leading water companies, including Severn Trent Water, Thames Water, Anglian Water and Scottish Water. In each case, the work has been carried out with maximum efficiency and minimal disruption.

Our dedicated team have widespread experience within the Water & Utilities sector and are able to encompass within our scope the full MEICA design, project management, site installation, testing and commissioning for all aspects of the mechanical and electrical installation.

