

Workington WwTW – Odour Control

Contract Value	£3.2M	Commenced	Jul 2006
Contract Period	54 Weeks	Completed	Aug 2007

Features

- Design and Construct
- Operational Site
- New and upgraded odour control extraction - ductwork & enclosures
- Bio-scrubber/Hypochlorite/caustic scrubbers/carbon filters
- Duty/standby main extract and booster fans discharging to refurbished stacks
- Bulk chemical storage tanks
- Screening skips enclosures
- New sludge mixers
- HV & LV power, cabling and controls
- New and modified PLCs and SCADA
- Piling, civils and infrastructure works

Brief Description

The wastewater treatment works, commissioned in 1996, serves the towns of Workington, Maryport, Flimby and High Seaton. It also receives industrial trade effluents which result in high levels of VOCs (Volatile organic Compounds) throughout the plant leading to odour problems.

A particular problem had been identified with acetaldehyde at the inlet works, preliminary and primary treatment process areas. In-addition, sludge mixing within the two existing Sludge Holding Tanks had proved ineffective leading to large volumes of grit and screenings settling at the bottom of the tanks.

The scope of the *Contract* includes:

- The provision of new covers for channels, chambers and screenings areas.
- New bio-scrubber including Booster Fans
- Refurbishment / modification of the Dryer Building Odour Control Unit, and provision of new chemical storage tanks, water softening and dosing equipment
- New Carbon Adsorption Unit
- New Main Extraction Fans
- New air ductwork, including road bridges
- Extension and relocation of the air discharge stack
- Removal of redundant equipment
- Various RC and piled foundations and slabs
- Bunded area for chemical storage tanks, new blind tank
- New external sludge mixers for the existing Sludge Holding Tanks including new MCC and cabling
- New Main MCC, cabling, instrumentation and controls
- Modifications to the existing power distribution system
- Modifications to the SCADA system and telemetry
- Training, O&M Manuals and As Built documentation



Specialist subcontractors are employed for ductwork and on slab odour control plant. Other works, including those for electrical and control systems, are being carried out with in house resources.

Close liaison with United Utilities Operations staff is being maintained for management of the operational site with phased implementation of the new systems Contract conditions are lump sum (CD 100) design and construct.

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