



WASTE INCINERATION DIRECTIVE - COLESHILL & ROUNDHILL PHASE 1

VALUE: £9,171,650

CLIENT: Severn Trent Water

LOCATION: Midlands, UK

START DATE: Jan 2005

COMPLETION DATE: June 2006

PROJECT STATUS: Complete



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The existing Distributed Control System for the entire plant was also stripped out and a new PLC and SCADA system was installed to provide up to date control facilities for the whole of the works.

At Roundhill the works was similar, however, additionally, a new Caustic Soda based Flue Gas Treatment Plant replaced the existing Lime based unit which was prone to blockages. As a result additional Caustic soda storage and dosing facilities were provided and a powdered activated carbon Plant. There were also improvements to the Sludge Dryer and the Pre-heat Burner.

An odour abatement system was also installed at the Roundhill site to improve the local environment and working conditions.

The works is phased and split into 5 discrete Sections, requiring careful planning and coordination with the Client. There are three shutdowns each year for the two plants around which a lot of the works had to be planned to minimise downtime during the operational periods.

DESCRIPTION & KEY FEATURES

Severn Trent Water have two Incinerators burning digested sludge, one at Colehill and one at Roundhill. The two plants are approx 12 years old and required upgrades to process areas to ensure compliance with new environmental legislation in December 2005. The Waste Incineration Directive will necessitate the addition of chemical treatment processes to improve effluents from both plants.

At Colehill the Works comprised upgrades to various areas to increase plant throughput, improve plant operation and ensure compliance with other regulations such as Working Place Directive and Health and Safety legislation associated with lifting equipment.

The works at Colehill comprised of the provision of a Scrubber Effluent Treatment Plant, including chemical storage and dosing, mixing, buffer and settlement tanks. Replacement of existing Continuous Emissions Monitoring systems with new duplex systems. Installation of new mixing systems to 4 sludge holding tanks, replacement of 5 no centrifuges with high efficiency units and upgrades to the associated polymer batching and dosing systems. Refurbishment of sludge hoppers and hot sand removal systems. Replacement of existing economisers and installation of additional economisers to improve heat exchange capacity and thus throughput.

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