



Blue Haze Leachate Treatment Plant

VEOLIA

PROJECT VALUE: £50K

FEB 2017 TO MAY 2017

Blue Haze LTP Case Study

This plant was installed by another company but was not completed nor fully commissioned and left the client with many control and performance problems. Phoenix were called in to look at undertaking remedial works to bring the plant into reliable use.

Contract

The scope of the works was agreed after a full site survey and negotiations of what could be done to bring the plant into full use. Items of work were listed and costed along with a program of the works and payment schedule to milestones.

Design and Construction

The many items for remedial works or renewal were designed in house with construction works undertaken after client review. The works involved, electrical, mechanical, instrumentation, fabrication and process controls. The leachate feed line to the SBR was partially replaced with a new control panel, flow meter and pipework.

The Sodium Hydroxide dosing system was replaced. The original having sprung many leaks and the dosing rate to the SBR was below that required to stabilize the pH level.

Upgrades & Process

One major difficulty for the client was the erratic behavior of the control system and the difficult user interface. It was decided to replace the existing PLC and SCADA with the Phoenix Dlog system. The operator interface and control software was developed in house to allow full control of the nonstandard way this plant operates. Additional controls were added to the Dlog system so as to allow the operator to fully control the plant and gain important performance feedback by way of logs and graphs of critical parameters

An unused phosphoric acid pump was utilized to form an automated anti-foam dosing system

The plant can now be optimized to achieve the maximum treatment flow for the leachate strength.

Training

Phoenix undertook onsite training to familiarise the operators with the new system and the additional control options they now have.



CHEMICAL DOSING

The existing chemical dosing plant was in a poor state with many leaks and corroded components. The original design had also allowed for undersized dosing pumps which meant the pH level in the SBR was difficult to maintain and resulted in the pumps running most of the aeration cycle. Phoenix replaced the whole system within the dosing room with new larger capacity pumps and all new pipe lines and valves. Temperature sensors were added to the dosing lines to monitor the delivery system pipe temperature.