



Location:
Cheshire



Products Used:



EnviroHub@
Water Treatment
Solutions

Water Treatment Solution Keeps an Industrial Plant Shutdown On-Track

Project Overview

A UK waste treatment plant planned a scheduled shutdown to carry out critical maintenance work.

During the shutdown, the Cheshire-based industrial plant organised proactive cleaning of plant internals to ensure optimal performance during regular operations.

Challenge

Intensive jet washing during the cleaning process allowed the plant to effectively remove built-up residue and deposits from internal surfaces but would also produce a significant amount of contaminated water. As the onsite wastewater treatment plant was taken offline as part of the shutdown, the cleaning process needed to be handled externally and carefully managed.

To stay on schedule and remain compliant with environmental regulation, the plant needed to treat contaminated water before discharging to:

- Reduce the risk of delays and improve the likelihood of programme delivery.
- Keep operational costs as low as possible by avoiding the need for tanker haulage to remove wastewater.
- Lower the risk of environmental non-compliance which would not only cause disruption to local waterways but could also lead to reputational damage and unlimited fines from the Environment Agency^[1].

The client approached hazard control experts, RVT Group for a reliable and effective water treatment solution to maintain operations during the shutdown-phase.

^[1] [gov.uk/government/news/unlimited-penalties-introduced-for-those-who-pollute-environment](https://www.gov.uk/government/news/unlimited-penalties-introduced-for-those-who-pollute-environment)

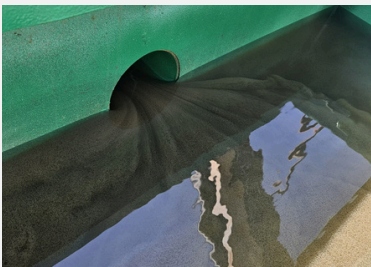
The Solution In Action:



EnviroHub® TU02 Dosing Skid adding chemicals to the Treatment Tank.



EnviroHub® TT10 Treatment Tank (right) and HL50 Lamella Settlement Tank (left).



Water with coagulant moving from Treatment Tank to Settlement Tank.



Clean water being discharged in-line with environmental regulations.

Solution

RVT Group recommended and installed a full water treatment solution, designed to neutralise pH whilst also separating silt and suspended solids from the water being treated.

The set up involved pumping contaminated water from the catchment area to an EnviroHub TT10 Treatment Tank where pH was measured and slow moving agitators aided the water treatment process. A TU02 Dosing Skid received measurements from the treatment tank and automatically delivered the correct dosage of caustic and coagulant to the tank. On this occasion, caustic facilitated pH neutralisation and coagulant aided the solid separation process.

Once the pH had been neutralised and the particulates in the water had agglomerated, the treated water gravity flowed into the HL50 Lamella Plate Settlement Tank. Here, solid separation occurred with newly formed flocs settling at the base of the tank for disposal. Effluent which remained at the top of the tank was then ready for discharge inline with environmental regulation.

Monitoring devices ensured scheduled work continued with minimal disruption, with a cloud-based monitoring platform granting remote access to live, operational data for both the client and RVT Group.

RVT Group's water treatment solution meant that works throughout the shutdown could be delivered without the additional hassle and risks that contaminated water posed. The industrial plant were able to continue prioritising the delivery of their schedule and focus on the task at hand whilst RVT Group took accountability for their water compliance.



An above view of the Lamella Settlement Tank in action



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