

CASE STUDY

Bespoke wastewater treatment for a port truck park

REWATEC · CALONA



QUICK FACTS

Application

PIF Truck Park, Port of London Gateway

Requirements

- A sewage treatment plant to meet a conventional discharge consent (20 mg/L, 30 mg/L, 20 mg/L) for BOD, TSS and NH₄-N respectively
- Final effluent results that proved the system could consistently meet the discharge consent, prior to commissioning
- A twin stream wastewater treatment scheme to deal with inconsistent loading, including prolonged periods of low and high flow loads (up to 250 daily users)
- A dosing system to provide additional alkalinity for effective ammoniacal nitrogen treatment

Solution

Calona chemical storage tank and a Rewatec submerged aerated filter (SAF)

SITUATION

DP world, the owner of one of the UK's most integrated logistics hubs, came to Premier Tech with a request for a new wastewater treatment scheme to serve their new PIF Truck Park within the London Gateway Port.

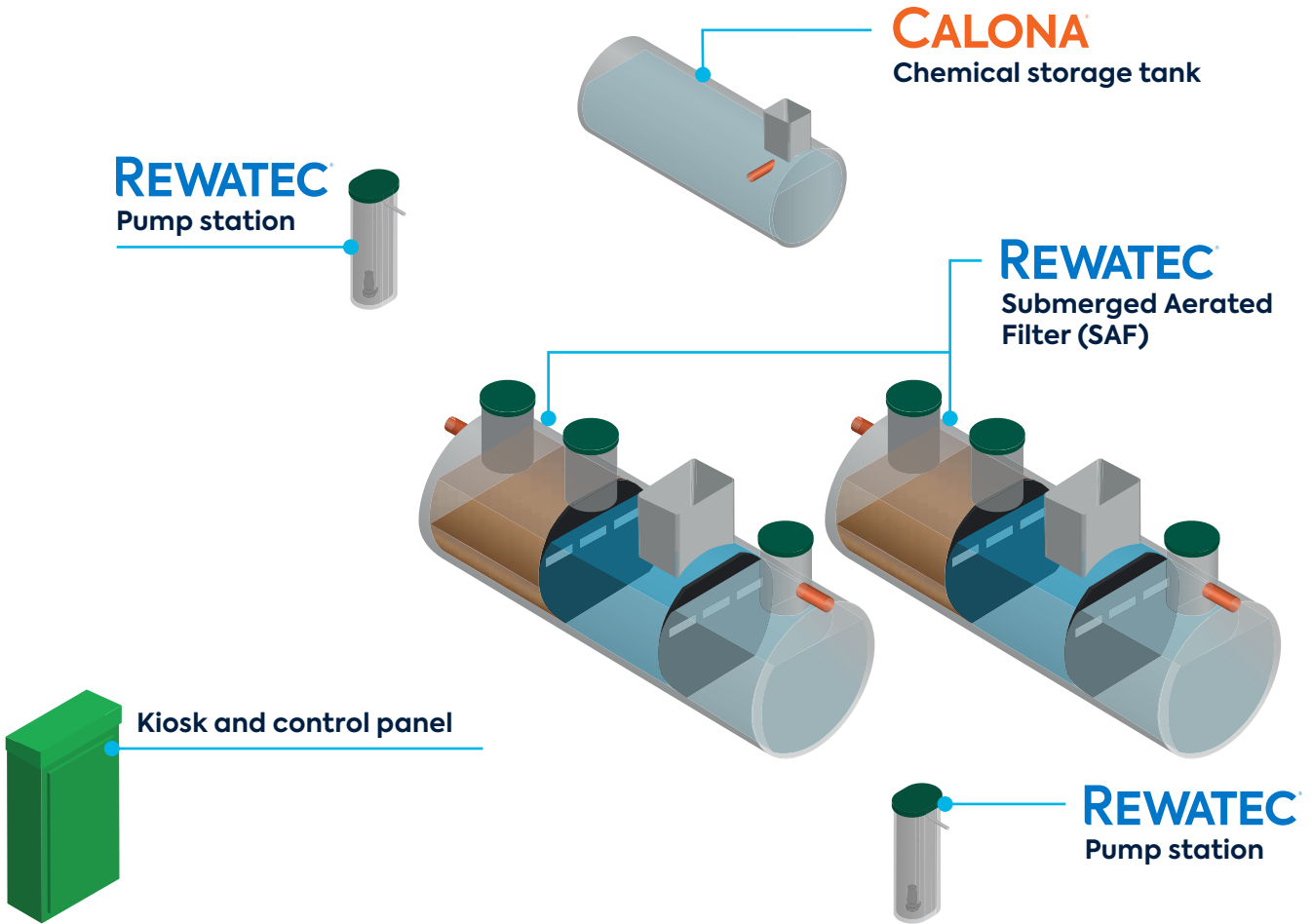
The location of the logistics hub and the hundreds of daily imports and exports that are facilitated through the port, meant that DP world were expecting high and often inconsistent flows generated from truck drivers visiting the onsite fast-food restaurant and using the toilet facilities and showers.

The discharge consent requirements meant that any chosen wastewater treatment plant could not be commissioned if 20 mg/L, 30 mg/L and 20 mg/L for BOD, TSS and NH₄-N respectively were not met, potentially costing DP world thousands in effluent tankering and off-site removal costs.

A chemical storage tank / dosing system was also required to ensure that the incoming wastewater influent had a sufficiently high level of total alkalinity for effective nitrification.

SOLUTION

After discussions with the design and engineering experts at Premier Tech, a system comprising of a Calona chemical storage/dosing tank for alkalinity optimisation, along with two Rewatec SAF sewage treatment plants for wastewater treatment and high levels of nitrification, were installed via our engineering contractors and commissioned by our partners Lemon Drainage. An influent pumping station and a final effluent pumping station were also installed to reliably transport the wastewater downstream.



The wastewater treatment scheme is now installed at the PIF Truck Facility and is providing reliable and efficient wastewater treatment for DP world. Daily and then monthly samples have indicated that the consent requirements are consistently being exceeded, meaning DP world can continue to discharge the final effluent into our environment in an eco-responsible and sustainable manner.



PT Water and Environment

+44 (0) 191 5878650
sales.ptwe.uk@premiertech.com
PT-WaterEnvironment.co.uk



FM 555591 EMS 698764

UK
20220509