

Scum board replacement and access steps installation

stonbury

Delivering a scum board replacement and access platform installation on a sewage treatment site, our innovative methodology delivered maximum value for our client.

In summary

- We replaced perished scum boards on two primary tanks without removing them from service
- Our working methodology involved re-commissioning tanks outside of working hours
- The solution, which avoided emptying the tanks or using lamella pumps, saved our client thousands

We removed and replaced one board at a time, planning our workload so at the end of each day, all scum boards, whether old or new, were in place so that the tank could be returned to service overnight. At weekends, the tanks remained operational. Each tank took one week to complete.

In the same timeframe, we removed some redundant pipework and actuators to fit a new access platform with a handrail and extended stop-log handle so operatives can easily lift and drop the stop logs to isolate the tanks for maintenance.

The benefits

- The alternative working solution enabled us to replace the scum boards while allowing wastewater processing to continue uninterrupted throughout the programme.
- The methodology passed sizable cost savings on to our client; over £30,000 compared with the conventional solution.
- It also avoided the need for carbon-intensive pumping.
- GRP replacement boards are a sustainable, long-lasting alternative to timber.
- The improvements have helped our client prevent a breach in effluent quality and ensure no polluting discharges occurred. The upgrades will help protect the water quality of the surrounding water body for decades to come.
- The additional access platform and stop log enhancements considerably improved safety for operatives who would have previously had to reach the stop log handle from the sides of the tank.

The need

Ageing timber scum boards at the top of two primary tanks had begun allowing effluent to leak into the outlet channel, affecting final effluent quality and risking sample failures. Our client asked us to replace the degraded scum boards surrounding the two primary tanks with rot-proof GRP and install a galvanised steel platform to access stop logs in each tank to improve operative safety.

Our client had approached another contractor, however, they had stipulated that the tanks had to be emptied for the duration of the works, which were estimated to take about a fortnight. Emptying and removing the tanks from service posed a problem as it would adversely impact the final effluent quality. We were approached to help identify an alternative solution.

We initially suggested taking the tanks offline while using lamella pumps to ensure wastewater processing continued. However, this option would have added approximately £30,000 to the cost of the programme, was highly energy- and cost-intensive and prohibitively expensive for our client.

The solution

Working with our client, we designed a working methodology that involved lowering the level of effluent in each primary tank by draining it into a small tanker during working hours. Once the top boards were exposed, we replaced the existing boards with new GRP ones, securing them with brackets.

£30k

The amount we saved our client with our working methodology

0

The amount of downtime the primary tanks were subject to



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