

THICKENED SLUDGE COST SAVINGS

BACKGROUND

Yorkshire Water's WwTW at Harrogate had an unreliable pump on a thickened sludge application, causing excessive downtime and high maintenance costs.

TASK

The pump, which removed thickened sludge from the drum thickener, needed wearing parts repaired every 6 weeks. Different stator materials had been suggested by the pump supplier; however, this made no difference to the wear problems. SEEPEX was asked to provide an alternative pump to overcome these issues and to find the root cause of the problem.

SOLUTION

A BN pump fitted with SCT was provided for the initial trial. Diagnostic work established that the thickener output was higher than previously thought and could be variable. SEEPEX recommended a larger pump fitted with Smart Conveying Technology and a VFD to cope with the higher output of the thickener. Inverter control linked to the thickener enables the flow rate to be varied in line with the output.

The pump was running for 12 months before the 1st service interval.

BENEFITS

- System diagnostic experience of SEEPEX identified the root cause of the problem
- Correct pump installation reduced maintenance intervals from 6 weeks to 12 months
- Lower spare parts use reduced costs
- SCT design reduced maintenance time



CSEE.SCT.Yorkshire Water.EN_10.16

CONVEYED PRODUCT

Thickened sludge

KEY SPECIFICATIONS

Improve reliability Increase pump service intervals Reduce downtime

COST SAVINGS INCREASED PRODUCTIVITY - 8X LONGER SERVICE LIFE

MAINTENANCE COSTS REDUCED

PUMP TYPE BN range with SCT and VFD drive