

seepex drive down OPEX and drive up reliability.

As part of Thames Water's drive for efficiency improvements and energy reduction, seepex was asked to demonstrate where they could make simple but effective changes.

seepex understands the importance of plant up time when ensuring works remain compliant and that solutions need to be focused on this as the ultimate objective.

Understanding how a pump works within the system and not viewing the pump as a stand alone item is critical. It is from this understanding that a true solution to 'pump problems' can be offered.

The Starting Situation

The raw sludge thickening plant at Swindon STW had been experiencing problems for some time causing regular disruptions to the whole process. The effects of these system problems on the works were high pump maintenance costs, downtime and high noise levels in the building. The interruptions to process meant regular night call outs to attend to an unreliable and inefficient system. seepex responded using their experience in both sludge pumping and the sludge treatment process to look at the issues from a process optimisation point of view. The underlying issues were identified, a solution developed and a turnkey package offered supported by a sound business case for changes to be made.

The seepex "4 stage methodology":

- Consultation – understand the underlying issues
- Development – creating an innovative solution
- Delivery – a turn key project from installation to commissioning
- Support – throughout the life cycle of the asset



Previous control with level probes and mechanical speed variator

The Solution

seepex offered a pump drive conversion together with an automated ultrasonic control system which varied the pump speed balancing it with thickener output. This removed the need for a manual mechanical speed variator and subsequent operating and maintenance costs. The entire project took just 4 days for the installation and commissioning for both thickening plants.



The Benefit

- The pumps are now 12% more energy efficient, reducing energy costs
- The capital cost of the EFF1 motors and inverters can be claimed back via the government ECA scheme
- Call outs to attend to belt drive issues have been eliminated
- Maintenance costs of the belt variators have been eliminated
- Plant down time due to pump failure has not occurred since changes were made
- Speed control is now automatic and balanced with the process which increases the service life of the pumps
- Total Pay back in less than 2 years and each subsequent year will yield significant savings.

The solution, ultrasonic level controlled geared motor

And what can we get flowing for you? Your nearest contact:

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