

Pfizer Goes Green with Scalewatcher

The technologically advanced Scalewatcher Electronic Control System has been purchased by leading pharmaceutical company, Pfizer, following a successful trial to reduce the scale build-up on its waste water treatment plant.

Pfizer's treatment plant at its site in Sandwich, Kent handles 100 cubic meters of waste water an hour which is piped to the plant on a continuous flow from all the manufacturing plants throughout the site. Processed water passes through the activated sludge biological digestion plant and is then disinfected to meet bathing quality water standards. The water is then discharged into the river in accordance with Environment Agency Consent Conditions. The disinfecting process uses sodium hydroxide dosing to increase the waste water's pH to above 10. This action causes the precipitation of calcium salts which results in the severe scaling of the pipework and disinfecting tanks. Remedial maintenance work carried out to descale both the tanks and the pipework every two to three months, necessitated the use of both high pressure water jets and acid cleaning using outside contractors and Pfizer employees. The annual cost of descaling the pipework and tanks was calculated at between £30,000 and £40,000.

Looking for a solution, Pfizer wanted a product which would not only reduce costs but would also ensure that its waste water treatment plant did not need to be shutdown for cleaning. Following a detailed site survey by a Flocare Engineer, Scalewatcher technology was installed on to an 8in line taking the processed water from the activated sludge biological digestion plant to the disinfecting tanks.

Since then, the scaling of the waste water treatment system had decreased to a level whereby maintenance is now carried out only once or twice a year. Pfizer has seen a payback on the unit in less than three months. "I have found the Scalewatcher technology to be very reliable and effective. It has given us an increase in overall plant performance and is backed by excellent service. The system costs a fraction of the price we would pay annually for cleaning. Also, as Scalewatcher is a 'fit-and-forget system', there is no maintenance required", said David Bell, Plant Manager.

Manufactured in the UK to exacting ISO9002 standards, under license from B and D Ingenieursburo, the Scalewatcher industrial and commercial ranges are based on the patented Scalewatcher technology and incorporate the latest advances in state-of-the-art microelectronics. Scalewatcher's patented technology works by producing a complex frequency modulated waveform. Reacting to the varying applied field, the Scalewatcher creates an induced electric field inside the pipe whereby the crystal growth of the scaling minerals in the water is promoted. As the crystals remain within the flow of the water, they no longer contribute to the build-up of hard pipewall deposits. Existing scale layers are softened, and loosened scale crystals are removed from the system by the water flow.