

Technologies on Reuse of water:

doscontrol®

First results:

A doscontrol® unit has been successfully installed/commissioned and it is now ready for demonstration at the full scale tertiary treatment in Castell I Platja d'Aro WWTP, Spain. After preliminary studies and fine tuning, it will be fully operational during the upcoming months. Furthermore the initial study including unit design and preliminary installation planning has been conducted for a second doscontrol® demonstration at the Hammarby Sjöstadsverk pilot plant, Sweden.

Contact:

Ernest Mejías, Teqma: ernest.mejias@teqma.com

aquaBio

First results:

The first aquaBio unit was installed in Castell d'Aro WWTP in December 2014. The equipment is monitoring the intake of the Water Reclamation plant (WRP) after the sand filtration in order to provide information to doscontrol® about the *E. coli* concentration. First results showed that the *E. coli* concentrations during the summertime are 2 order of magnitude greater than in wintertime, since the higher temperature increases the growing capacity of the microorganisms. A second testing phase is planned after summer 2016, by monitoring the outlet of the WRP, thus, providing an early warning about the sanitary safety of the reclaimed water for the irrigation uses.

The second aquaBio unit was installed in Hammarby Sjöstadsverk (IVL demonstration facilities in Sweden) in late November 2015. This unit is mounted in a portable structure that allows changing the location of the equipment depending on the process to monitor. Currently it is analyzing treated water from Henriksdal plant and in the next months will be moved for the analysis of treated MBR water. The results obtained in the equipment are contrasted with the laboratory methodology.

Contact:

Montserrat Batlle mbatlle@adasasistemas.com , ADASA: adasa@adasaproducts.com

AQUATRACK®

First results:

AQUATRACK® is a stand-alone novel laser based optical online early warning contamination monitoring system coupled with automatic sampler to detect contamination in a flow of water. The system has been successfully installed/commissioned at the outgoing effluent (tertiary treatment) from a MBR treatment plant. AQUATRACK® is being demonstrated successfully at the Swedish test bed facility at Hammarby Sjöstadsverk, Stockholm. The system detects immediately contamination, collects water samples for analysis and gives alarm for possible danger. AQUATRACK® gives early stage warning of process failure and risk of harmful contaminants reaching to environment.

The initial results are very promising and show a good correlation between timely captured water samples by AQUATRACK® and fecal contamination. On one occasion the system has also given indication of expected process failure three weeks before the process failure was detected.

AQUATRACK® is under advanced stage of EU-ETV validation/verification process.

Initial preparation and planning has been conducted to install AQUATRACK® at a full scale commercial WWTP at La Bisbal in Girona, Spain immediately after finishing the ETV verification process.



The (financial) benefits to customers by adopting AQUATRACK® are

- Cost saving on analyses as fewer and only proper water samples will be analyzed
- Online process stability information
- Environmental protection as AQUATRACK® keeps an eye on the effluent quality 24/7
- Minimum investment

Contact:

Sudhir Chowdhury, Aqua-Q: sudhir@aqu-q.se

Ulla Chowdhury, Aqua-Q: ulla@aqu-q.se

Ozone polishing

First results:

Aqua-Q has developed/composed a small modular based stand alone, self-content automatic ozone polishing system to remove/eliminate emerging contaminants, specifically targeted prioritised pharmaceutical residues and residues of personal care products from the Swedish WWTP and faecal bacteria found in treated waste water.

The modular ozone system has been successfully installed to treat the effluent from the MBR System and it is commissioned at Swedish test bed at Hammarby Sjöstadsverk.

The initial batch online study gives outstanding results in removal of pharmaceutical residues and total elimination of faecal bacteria from the effluent with low level of dissolved ozone concentration between 0.05-0.08 ppm. The removal of pharmaceutical residues is under the detection limit.

Contact:

Sudhir Chowdhury, Aqua-Q: sudhir@aqu-q.se

Ulla Chowdhury, Aqua-Q: ulla@aqu-q.se

