

Workshop on Benchmarking of Control Strategies for WWTPs

LET'S PUT IT INTO PRACTICE !

Sunday May 6th 2007 from 09:00 to 12:30

The objective of this workshop is to explore options for testing potential wastewater treatment process control strategies. Ten (10) years of experience have provided considerable insight into the problems associated with testing, validating and evaluating full-scale control options using computer simulations prior to implementation. The scientific adventure around benchmarking started in 1997 within the framework of a European COST project and is now supported by the International Water Association as an IWA Task Group.

Control of wastewater treatment plants can provide various benefits that are not always without a cost elsewhere. Computer simulation of the control scheme provides an ideal methodology for analyzing all the impacts that might result from its implementation. This workshop will highlight the interest and benefits of controlling wastewater treatment plants with an emphasis on the main scientific achievements related to the simulation and analysis of control impacts. It will report on the latest developments with the benchmark simulation systems including the new plant-wide simulation tool.

The workshop will provide participants with an opportunity to challenge and learn about the journey that has been taken so far. Assumptions and decisions have been made over the course of the development so professional feedback from the water industry and research communities about those decisions is critical to the success of the Task Group product. A lively and interactive session designed to generate ideas and discussion about control and the testing of control for full-scale systems is the goal.

Contents of the workshop

09:00 – 09:45: Why do we need control? Is control really needed and what are the benefits?
(Dr. Jean-Philippe Steyer, INRA-LBE, France)

09:45 – 10:30: Why is dynamic simulation useful for evaluation of control strategies?
(Prof. Peter Vanrolleghem, modelEAU, Canada)

10:30 – 11:00: Coffee break

11:00 – 11:30: The BSM1 history and success stories (Dr. John Copp, Primodal, Canada)

11:30 – 12:00: The BSM2 plant-wide WWTP modeling (Dr. Ulf Jeppsson, Lund University, Sweden)

12:00 – 12:30: Round table and open discussion about the future of simulation-based control strategy development