

OSCAR Knows Biomass Control

REAL-TIME MONITORING | REAL-TIME CONTROL | REAL-TIME SAVINGS

OSCAR process performance optimizer with SIMS controller

helps monitor and control biosolids to meet treatment objectives while saving energy. The SIMS controller is available with any Sanitaire biological process solution.

Four control modes offer full flexibility to optimize process stability and energy efficiency, based on the operational preference:

SMART SRT
MODE

Smart solids retention time (SRT) mode uses real-time conditions, including effluent ammonia target and basin temperature, to determine and maintain a required SRT for any point in time by adjusting the biomass wasted

SRT
MODE

SRT mode uses an operator selected SRT to adjust the biomass wasted and maintain a healthy and stable biology in the process

MLSS
MODE

MLSS mode uses an operator desired Mixed Liquor Suspended Solids (MLSS) concentration to adjust the biomass wasted

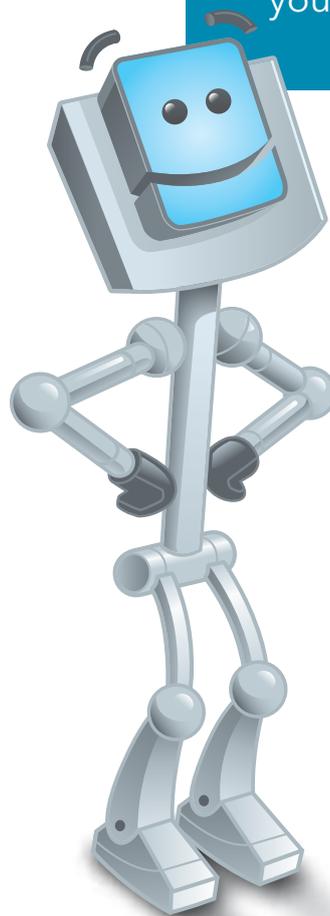
TIME
MODE

Time mode enables biomass wasting based on operator selected settings for the waste pump

Real-time monitoring for real-time control. Robust WTW/YSI sensors are used to measure total suspended solids (TSS). By monitoring MLSS in the basins, as well as flow and TSS of wasted sludge, the OSCAR system calculates and tracks the SRT for each aeration basin.



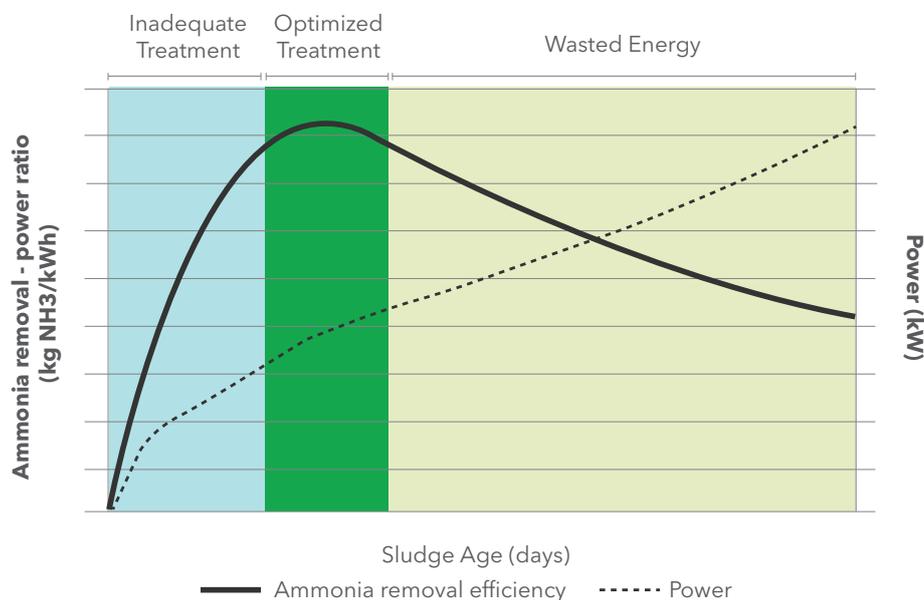
How do you control your wasting?



SANITAIRE
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Healthy Bugs = Quality Effluent = Happy Operator

Although sludge age, or SRT, is considered a very effective tool for activated sludge process control, it can be difficult to maintain in practice. Changes in influent flow and loading, as well as effluent draw off, can make stable biosolids maintenance a trial and error process.



Too low SRT causes unstable operation and inadequate treatment, risking permit violations. Too high SRT causes a waste of energy by aerating more solids than are needed for treatment.

- **SIMS controller stabilizes the process.** Increasing or decreasing sludge age can't happen overnight. The SIMS controller makes slow, realistic changes to the process keeping the biomass healthy and happy.
- **SIMS controller saves energy.** Excessive sludge age is not only hurting the process but also costs money. With the SIMS controller adjusting wasting, energy savings of 10-15% can be realized.
- **SIMS adjusts automatically.** Taking into consideration key parameters such as dissolved oxygen, required effluent ammonia and temperature allows the OSCAR system to use smart protocols to track trends and make timely adjustments, maintaining the SRT within the range for optimum treatment in real-time.
- **SIMS ensures trouble-free control.** The SIMS controller incorporates Sanitaire's expertise on biological process and online sensors to detect any process upsets automatically and take necessary actions, ensuring a trouble-free control and peace of mind.
- **SIMS controller makes monitoring fast and simple.** Intuitive user-friendly screens ensure operators are always in the know.

Backed by Sanitaire biological process expertise and supported by Xylem's suite of premium products, the OSCAR system ensures process optimization. Optimal treatment starts with optimized biosolids control. Let one of our process experts show you how the SIMS controller takes the guesswork out of biosolids management.