RTC-SD: Benefits of Load-Based Polymer Dosing

Bowling Green Municipal Utilities Sludge Dewatering

Sam Utley & Melody White | Hach
Scott Neighbors | Bowling Green Municipal Utility

Background

12 MGD Plant
2 sequencing batch reactors (SBRs) with 2 basin SBR trains
130,000 gallons/day waste per train. 0.75% solids to 3 sludge holding tanks
Operations: Dewatering 3-4 days per week; 24-hour dewatering process

Problems (Before RTC-SD)

Highly automated WWTP excluding highly manual dewatering process
$250,000/year polymer budget
High chemical costs for BGMU
Highly variable sludge (no digestion)

Solution

RTC-SD system allows the WWTP to effectively adapt polymer dosing in real time for the changing feed sludge TSS concentrations.

Results (After RTC-SD install)

Eliminated ~70% of manual adjustments at centrifuges that were required to manage unpredictable sludge from BGMU
RTC-SD allowed for accurate tracking of sludge & polymer
Hach RTC-SD polymer system exceeded expectations, decreasing the plant’s polymer needs by 58%
More consistent cake

Polymer dosage optimized in real-time to meet current load
Real-time analysis offers more visibility into spikes and peak loads compared to grab sampling

Polymer consumption decreased 58%

See the Power of Claros™
For more information, visit hach.com/rtc