

Reference Description

Sludge thickeners for the WWTP Paris
France



The Seine Aval wastewater treatment plant in Paris is the largest plant of its kind in Europe and the second largest worldwide, treating the wastewater from six million inhabitants. Four new ANDRITZ decanter centrifuges will help the operator meet reduced nitrogen levels as of 2011.

Seine Aval has been operated since 1940 by public operator SIAAP who has constantly modified the plant to improve its performance and reduce the impact on the living conditions of the surrounding communities. The plant currently produces 153,000 tons of sludge per year. For new water treatment units installed as from 2003, ANDRITZ delivered two D7L centrifuges for tertiary sludge, four D7LL centrifuges for nitrification sludge thickening, as well as three D5LL-TC centrifuges for "clariflocculation" sludge dewatering. The European Directive on municipal wastewater treatment dated May 21, 1991 requires European states to reduce nitrogen levels in wastewater by 70% as of 2011. To meet this objective, Seine Aval is currently installing new facilities including a new sludge thickening unit to improve the anaerobic digesters' operation. The unit will be equipped with four D7LL centrifuges including an ANDRITZ Easy-Pond system.

Constant solids content with Easy-Pond

Easy-Pond is a unique motorized system to adjust pond depth in operation when the conveying torque value alone is too low to control the differential speed (residence time, thus dryness) of the centrifuge. Easy-Pond is coupled with a control loop to ensure constant solids content in the thickened sludge. The solids content is sampled and measured with a specific probe and the value thus determined is compared to the set point, which leads to an adjustment of the pond depth by Easy-Pond and, if needed, a change of relative speed to increase or decrease the solids' residence time in the rotating unit. This adjustment is carried out fully automatically.