



Treatment of High-loaded Industrial Wastewater

Year: 2011

Project Location: Valle de Escombreras, Cartagena – Murcia

Objectives: Modify the current wastewater treatment system to comply with discharge requirements.

Installed technologies:

Full Pre-treatment by SIGMA: homogenization tank with a JET aeration system; coagulation-flocculation equipment with a compact PFL chemical dosing system capable of treating up to 44 GPM; a DAF FPAC-CPL15 physico-chemical flotation system. **Modification of the biological treatment:** replacement of the old homogenization tank and old SBR reactor with two continuous aeration tanks as biological treatment with the installation of aerators; DAF FPAC-CPL20 flotation as secondary clarifier; measurement and control equipment including control panel

Capacity: 26,400 GPD

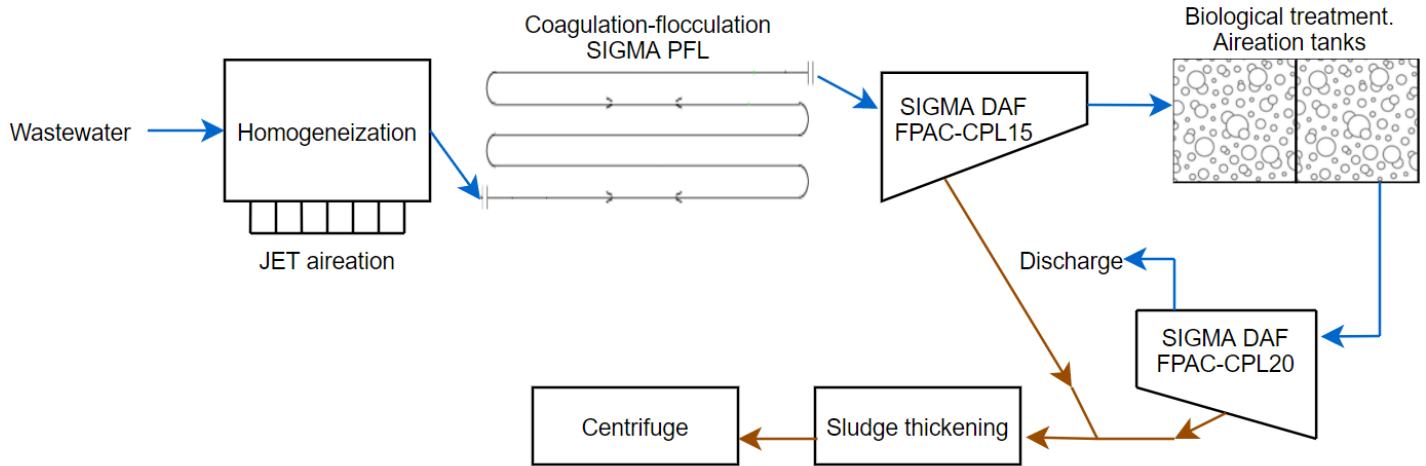
Wastewater Characteristics

COD	Conductivity	TSS
fluctuant with an average of 5.500 mg/L	20.000 μ S/cm	>1.000 mg/L

Full Pre-Treatment Performance

COD removal	TSS removal
83%	74%

Process Diagram:



Background:

Aceites Especiales del Mediterráneo S.A. (AEMEDSA) is a world leader in the manufacturing of white mineral oils and natural sulfonates. Its industrial activity is combined with the fulfillment of the Environmental Responsibility commitments. The wastewater treatment system installed by SIGMA allows AEMEDSA to comply with the current industrial wastewater discharge requirements.