



3rd
INTERNATIONAL WORKSHOP
ADVANCES IN CLEANER PRODUCTION

“CLEANER PRODUCTION INITIATIVES AND CHALLENGES FOR A SUSTAINABLE WORLD”

Performance Analysis of High Efficiency Thickeners to Suspensions of Leachate

M. R. T. Halasz ^a, F. P. Puget ^b, E. F. Mai ^c

a. Faculdade de Aracruz, Espírito Santo, halasz@fsjb.edu.br

b. Faculdade de Aracruz, Espírito Santo, puget@fsjb.edu.br

c. PEQ/COPPE/UFRJ, Rio de Janeiro, estevao@peq.coppe.ufrj.br

Abstract

Leachate is a dark liquid generated by the degradation of waste, potentially polluting. Usually contains high concentrations of suspended solids, heavy metals and organic compounds. Characterize the flakes from a process of coagulation-flocculation of slurry is essential for calculations in thickeners, as well as identifying the optimum operation conditions, such as type of coagulant, concentration and pH. In this study, after determining the optimal conditions of flocculation were determined the diameter of the flake, the density of the floc, density of the supernatant and porosity of the flake using the method of Bailey and Ollis (1986), as well as some parameters obtained from batch sedimentation tests as average speed of sedimentation, and speed of Stokes using the equation of Richardson and Zaki modified. Using this results the flocs can be modeled using techniques proposed by França et al. (1999) and the results are validated by experiments.

Keywords: *Leachate, Flocculation, Sedimentation.*

“CLEANER PRODUCTION INITIATIVES AND CHALLENGES FOR A SUSTAINABLE WORLD”

São Paulo – Brazil – May 18th-20th - 2011