

ABSTRACT

Interquimec S.A., is a chemical industry whose speciality lies on synthetic resins production.

Therefore, its dilemma relies into fulfil with the Metropolitan District of Quito parameters requirements, to function normally.

Its principal issue is upon the parameters of phenols, COD (chemical oxygen demand) and BOD (biochemical oxygen demand), since its measurements went over the permissible law regulation limits.

First of all, the study began with a characterization of the waters before and after Interquimec S.A. treatment system, as they already have a waste water treatment system (coagulation/flocculation) that works well, but only decreases the suspend solids and pH parameters.

Besides, there was a volume of water calculation, to acknowledge the industrial plant state. Consequently, from there, there was a several essays elaboration to try decrease somehow the trouble parameters. These essays were airing, chemical oxidation with hydrogen peroxide, sodium hipoclorite, sodium hydroxide and adsorption with activated carbon.

As results, there was a higher effectivity on the airing plus hydrogen peroxide and activated carbon essays that were arranged, compared with the rest of the essays.

Thus, with achieved essays, there was a elaboration of schemes for Interquimec S.A. and hence to accomplish satisfactory the legal regulations for their liquid effluents.