

Industrial Wastewater Treatment Improvements Using Activated Carbon

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Abstract : The discharge limits of industrial waste water effluents are subjected to regulations which are getting more restricted with time. A former research occurred in Port Said city studied the efficiency of treating industrial wastewater using the first stage (A-stage) of the multiple-stage plant (AB-system). From the results of this former research, the effluent treated wastewater has high rates of total dissolved solids (TDS) and chemical oxygen demand (COD). The purpose of this paper is to improve the treatment process in removing TDS and COD. Thus, a pilot plant was constructed at wastewater pump station in the industrial area in the south of Port Said. Experimental work was divided into several groups adding activated carbon with different dosages to waste water, and for each group waste water was filtered after being mixed with activated carbon. pH and TSS as variables were also studied. At the end of this paper, a comparison was made between the efficiency of using activated carbon and the efficiency of using limestone in the same circumstances.

Keywords : adsorption, COD removal, filtration, TDS removal

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