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APPLICATION OF PACT SYSTEM TO INCREASE TEHRAN OIL REFINERY EFFLUENT TREATMENT EFFICIENCY

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Abstract:

This research was done in order to determine the basic criteria for “Tehran Oil Refinery Effluemt TreatmentUnit” to prove the feasibility of the application of powdered activated carbon in aeration zone of activated sludge System. The main stages of this research included: determination of qualitative and quantitative characteristics of raw wastewater preparation of two pilot scale units of activated sludge (As) and powdered activated carbon technology (PACT), study of correlation between independent variables of powdered activated carbon concentration, hydraulic detention time, and microbial detention time with the concentrations of COD, B0D5 and TSS of the effluent. Results indicated the efficiency increase of Tehran oil refinery effluent treatment by PACT process , which besides increasing COD5 , BOD5 , Oil and TSS removal, improves also nitrogen and phosphorus removal Conditions and activated sludge sedimentation, comparing as system.

Keywords:

Refinery effluent treatment ، Oil refinery waste water ، PACT process (Simultaneous activated sludge and powdered activated carbon system)

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