

DETERIORATION OF CONCENTRATED BIOGENIC COMPOUNDS BY THE OPERATION OF A SINGLE TANK WASTEWATER TREATMENT PLANT

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Abstract:

Indecisive processes have been involved in wastewater treatment plant, which have to a certain extent hard to estimate. Appropriate model is quit required to operate of waste water for smooth and efficient process. There are distinct models developed to treat wastewater therefore. This research has been proposed a single tank domestic wastewater treatment plant it includes different stages of screening, sedimentation, oil trap, filtration, aeration, and disinfection treatment processes for consumption. Removal of waste water pollutants flows into artificial aquatic plant and re use of water for sake of environment. Analyzed water quality parameters before inlet and after outlet such as turbidity, TDS, TSS, BOD, COD, iron and total hardness the results are stated that, before treated samples values are 52 ntu, 768 ppm, 1600 ppm, 25 ppm, 38 ppm, 108 ppm, and 1000 ppm respectively. After treated values are 2 ntu, 114 ppm, 428 ppm, 1.5 ppm, 4 ppm, 0.33 ppm, 150 ppm. We used for filtration of waste water geotextile screens and filters like charcoal, brick and sand. In this process we concluded that, for filtration process it will take time but good results can be obtained. Removing water element characterizes BOD, COD, and Total Hardness in wastewater treatment plant with respectively 92%, 89%, and 85%. Total thick of screen is 0.88 m, Aeration tank rate flow is 0.075 m³/sec at aeration period 0.373 seconds Efficiency of sedimentation tank $\eta = 96\%$. Treatment plant consist parameter such as dimensions, shape, and filters and treat of wastewater is easy way. These systems are proved to be efficient for domestic wastewater treatment.