

DETERMINATION OF EFFECT OF FOLIC ACID ON BIOLOGICAL TREATMENT EFFICIENCY

Because of several reasons, loss of efficiency occurs in biological waste water treatment plants. 35 years researches in the states about this topic pointed out a vitamin leakage. As a result folic acid has been determined as the most missing vitamin. Folic acid, which acts as antistress factor and oxygen vitamin, has improved efficiency of waste water treatment plants.

The dosage of folic acid to the system continuously is as important as the dosage rate. Moreover, how the solution has been prepared and the dosage point have also high importance.

In this study one domestic (300 m³/day) and one industrial (250 m³/day) waste water treatment plant have been chosen to test folic acid and its efficiency at the mentioned treatment plants has been investigated. Meanwhile the flow and parameters, which are related to the waste water treatment efficiency in the inlet of the aeration basin, inside the basin and at the outlet have been tried to follow as much as possible.

During this study, the metal industrial waste water treatment plant COD discharge value reaches quite stabil results such as 88-106 mg/L. The Effluent COD value at the outlet of the domestic waste water treatment plant has been reduced down to 60 mg/L and so stabil discharge values are reached.

In case of interrupting the regular dosage of folic acid, a loss of the above mentioned efficiency has been determined. A reducement of the dosage from 1 ppm to 0,2 ppm has resulted in corruption of the the COD and BOD₅ discharge values as their increase in the range of 80-100 %. When the dosage has been increased to 0,4 ppm, the effluent values became their former values.

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