

Preliminary Treatment in Wastewater Treatment Plants: Operation and Maintenance Aspects

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Abstract : This work characterized the preliminary treatment in WWTPs in the state of Mato Grosso Do Sul (Brazil) and analyzed aspects of operation and maintenance of solid waste retained, and was evaluated the interference of this step in treatment efficiency beyond the relationship between solid waste generation with rainfall and seasonality in the region of each WTPs. The results shown that the standard setting in the preliminary treatment consists of grid along with Sand Trap, followed by Parshall that is used in 94.12% of WWTPs analyzed, and in 5.88% of WWTPs it was added the air-lift to the Sand Trap. Was concluded that the influence of rainfall, flow and seasonality associated with the rate of waste generation in the preliminary treatment, had little relation to the operation and maintenance of the primary treatment. But in some cases, precipitation data showed increased rainfall converging with increased flow and solid waste generation.

Keywords : pretreatment, sewage, solid waste, wastewater

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