



Evaluation and Optimization of Sewage Treatment Plant (STP)

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Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | In this study, the performance of a full scale domestic wastewater treatment plant is evaluated. The regularly monitored parameters included total suspended solids (TSS), mixed liquor suspended solids (MLSS), mixed liquor volatile suspended solids (MLVSS), biological oxygen demand (BOD) and chemical oxygen demand (COD). It was found that the biological degradation efficiency of the plant was below the desired levels in terms of BOD and COD. Also, the plant operators were not maintaining consistent sludge retention time (SRT). Abrupt discharge of MLSS through the surplus activated sludge (SAS) pump was the main reason for the low MLSS in the aeration tank and consequently low treatment performance. The WWTP was operated and optimized at three SRTs of 12d, 8d and 7d based on desired MLSS concentration and required performance in terms of BOD COD and TSS. Maximum removal efficiency of these parameters was found at 7d SRT. A steady state modelling of the plant was done by the simulation software Aquifas+. This study revealed that SRT is very important operational parameter and its knowledge and correct implementation by the plant operators should be mandatory. | Format: Paperback | Language/Sprache: english | 88 pp.



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