


Tawee Sittilutkul 2006: The Correlation of BOD, COD, and TOC in Influent and Effluent from Activated Sludge Process. Master of Engineering (Environmental Engineering), Major Field: Environmental Engineering, Department of Environmental Engineering. Thesis Advisor: Associate Professor Jakkris Sivadechathep, Ph.D.  
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The analysis of  $BOD_5$  in influent and effluent has many factors affecting the accuracy of the result. In addition, the analysis takes 5 days long. Therefore, the relationship study between  $BOD_5$ , COD, and TOC of influent and effluent from domestic wastewater could be the strategy use to predict BOD quickly, correctly, and more precisely. Hence, this study has its aims to study the correlation between  $BOD_5/COD$ ,  $BOD_5/TOC$  and  $COD/TOC$  of influent and effluent from the Activated Sludge Process in Din Dang and Rattana Kosin Waste Water Treatment Plant.

The study result found positive correlation and ratio between  $BOD_5/COD$ ,  $BOD_5/TOC$  and  $COD/TOC$  in influent and effluent from Activated Sludge Process in both plants. The best precise prediction is found to be the correlation and ratio between  $BOD_5/TOC$ .

However, the result of the correlation mentioned above might be varied relying on the characteristics and organic substance in wastewater itself. For the other specific waste water treatment plant; therefore, it should be studied their own correlation and ratio in order to precisely predict  $BOD_5$ .



Student's signature



Thesis Advisor's signature

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