

<b>Title</b>	Study on Effluents Quality from the Buildings in Rajabhat Maha Sarakham University
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<b>Year</b>	2016

### ABSTARCT

The objective of this study was to analyse the quality of effluents from buildings that runs along the pipelines from each buildings to the water resources within Rajabhat Maha Sarakham University, in order to compare with Building Effluents Standards. The sampling points of water determined of seven points to collect data as follows : 1<sup>st</sup> point at the end of effluents pipe from Building of 72 Anniversary, 2<sup>nd</sup> point at the end of effluents pipe from Rajabhat Maha Sarakham University's dormitory, 3<sup>rd</sup> point at the end of effluents pipe from Building 3 (Faculty of Humanities and Social Sciences), 4<sup>th</sup> point at the end of effluents pipe behind the outdoor stage, 5<sup>th</sup> point at the end of effluents pipe from Building 10 (Science Center), 6<sup>th</sup> point at the end of effluents pipe of the bridge to cross over Huay Kakang to the 80<sup>th</sup> Anniversary Auditorium Building, 7<sup>th</sup> point at the end of effluents pipe from Buildings 31 (80<sup>th</sup> Anniversary Auditorium Hall). The sampling water was collected during the month of December 2558 to January 2559. The parameters studied include Acidity - Alkalinity (pH), Biochemical Oxygen Demand (BOD), Suspended Solids (SS), Total Dissolved Solids (TDS), Sulfide ( $S^{2-}$ ), Oil and Grease (FOG), Total Kjeldahl Nitrogen (TKN), and Phosphate ( $PO_4^{3-}$ ). Statistics used in the analysis were the average value and standard deviation.

The study results of effluents quality from seven points revealed that the averages for each parameter were as follows : pH 6.90 - 7.53, BOD 20.53 - 73.62 mg/l, SS 6.58 - 81.73 mg/l, TDS 88.03 - 549.86 mg/l,  $S^{2-}$  0.02 - 0.14 mg/l, TKN 0.77 - 4.52 mg/l, FOG 1.43 - 4.66 mg/l and  $PO_4^{3-}$  0.93 - 7.04 mg/l. When the study results were

compared with Effluent Standard Buildings, it was found that the sampling points 2<sup>nd</sup> and 3<sup>rd</sup> with BOD, SS, and TDS, were over the Building type A Standard.