

**PENGOLAHAN SECONDARY SLUDGE DENGAN PROSES BIOLOGI
ANAEROB SISTEM TERLEKAT MENGGUNAKAN MEDIA PLASTIK
(STUDI KASUS PT. JABABEKA INFRASTRUKTUR, JAKARTA)**

Sri Elda Mariani

ABSTRACT

Secondary Sludge is high concentrated organic wastewater. It can be treated by biological anaerobic process. Research of the secondary sludge wastewater treatment was done in a 10,5 L anaerobic reactor. The influent contains 21.225 mg/L to 23.500 mg/L of total solids and 14.600 mg/L to 17.200 mg/L COD. Independent variable is flow rate, which consists of 1 L/d, 1,5 L/d, 2 L/d, and 3 L/d. Wastewater pollutants which are being researched are Chemical Oxygen Demand (COD), Total Solids (TS), Total Volatile Solids (TVS), Suspended Solids (SS) and Volatile Suspended Solids (VSS). By the 2 L/d volume, degradation process in the reactor reached maximum value with up 50 % efficiency of degradation and the loading rate generated maximum and stable condition. The efficiency of degradation presented by the decreasing of COD, TS, TVS, SS and VSS concentrations, the values are 53.13%; 51.07%; 48.36%; 61.65% and 58.45%.

Key word : *Secondary Sludge, Anaerobic Biological Treatment, Attached Growth, Plastic Media.*