ANALISIS EFEKTIVITAS INSTALASI PENGOLAHAN AIR LIMBAH (IPAL) PADA BALAI IPAL PIALAM SEWON BANTUL YOGYAKARTA

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ABSTRAK

Berbicara mengenai pencemaran air, biasanya yang terlintas dipikiran kita adalah limbah cair dari industri pabrik saja. Padahal dari rumah tangga, pasar, sawah, rumah sakit, juga berperan banyak dalam tercemarnya air. Air yang mengandung detergen, tinja dan sisa makanan yang masuk kesaluran pembuangan air setiap harinya dapat mempengaruhi keseimbangan fisika dan kimiawi air. Penelitian ini bertujuan untuk mengetahui kualitas air limbah *inffluent* dan *effluent* IPAL dengan pengujian parameter BOD, COD, TSS, TDS, Deterjen, Suhu, pH, Amonia, oksigen terlarut. Dalam penelitian ini dilakukan survey dan observasi, pengambilan sampel air serta wawancara untuk mendapatkan data. Yang merujuk Peraturan Menteri Lingkungan Hidup dan Kehutanan No. P.68 Tahun 2016 Tentang Baku Mutu Air Limbah Domestik Hasil pengujian inffluent pada inlet instalasi pengolahan air limbah Sewon Bantul Yogyakarta, sudah memenuhi baku mutu kecuali pada parameter deterjen jam 08.00 WIB dengan nilai konsentrasi sebesar 0, 2322 mg/L dan baku mutu deterjen 0,2 mg/L sedangkan untuk effluent pada outlet jam 10.00 WIB. Sembilan parameter sudah memenuhi standar baku mutu berdasarkan Peraturan Mentri Lingkungan Hidup Dan Kehutanan Nomor. 68 Tahun 2016, tentang standar baku mutu air limbah. Dan dari hasil analisis efisiensi proses pengolahan yang memeliki persentase yang cukup besar dalam menurunkan kadar BOD dan COD ada pada outlet dengan nilai BOD 74 % dan COD 64%.

Kata Kunci : Air Limbah Domestik, Baku Mutu Air Limbah, IPAL terpusat.

ANALYSIS OF THE EFFECTIVENESS OF WASTEWATER TREATMENT INSTALLATIONS (WWTP) AT THE PIALAM WWTP HALL, SEWON BANTUL, YOGYAKARTA

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ABSTRACT

When talking about water pollution, what usually comes to mind is liquid waste from factory industries. In fact, households, markets, rice fields, hospitals also play a big role in water pollution. Water containing detergent, feces and food waste that enters the sewer every day can affect the physical and chemical balance of water. This research aims to determine the quality of inffluent wastewater and IPAL effluent by testing the parameters BOD, COD, TSS, TDS, Detergent, Temperature, pH, Ammonia and dissolved oxygen. In this research, surveys and observations were carried out, water samples were taken and interviews were conducted to obtain data which refers to Minister of Environment and Forestry Regulation No. P.68 of 2016 concerning Domestic Wastewater Quality Standards. The results of inffluent testing at the inlet of the Sewon Bantul Yogyakarta wastewater treatment plant, have met the quality standards except for the detergent parameters at 08.00 WIB with a concentration value of 0.2322 mg/L and the detergent quality standard is 0. .2 mg/L; while for effluent it is at the outlet at 10.00 WIB. Nine parameters have met quality standards based on Minister of Environment and Forestry Regulation Number. 68 of 2016, concerning waste water quality standards. From the analysis results, the efficiency of the processing process which has a fairly large percentage in reducing BOD and COD levels is at the outlet with a BOD value of 74% and COD 64%.

Keywords: Domestic Wastewater, Wastewater Quality Standards, centralized WWTP.