



EVALUASI KINERJA PROSES PENGOLAHAN PADA IPAL RUMAH SAKIT

INTISARI

Rumah Sakit (RS) diharuskan memiliki Instalasi Pengolahan Air Limbah (IPAL) agar air limbah yang telah diolah memenuhi standar baku mutu. Berdasarkan fasilitas dan kemampuan pelayanan terdapat lima kelas rumah sakit, sehingga setiap RS memiliki jenis IPAL yang berbeda-beda. IPAL sendiri memiliki beberapa proses yaitu pengolahan, pengoperasian, pemantauan dan pemeriksaan baik kondisi air limbah maupun alat yang harus dilakukan setiap hari. Penelitian ini dilaksanakan pada RSGM UGM mewakili RS tipe khusus, RSUP Sardjito mewakili RS tipe A dan RSA UGM mewakili RS tipe B yang masing-masing berada di Yogyakarta yaitu dengan mengkaji konsistensi pemantauan kualitas air limbah, operasional peralatan dalam kurun waktu satu tahun dari setiap rumah sakit, menganalisis kemampuan IPAL dalam penyisihan bahan organik (parameter COD). Hasil penelitian menunjukkan pemantauan kualitas air limbah baik dari stabilitas dan reliabilitas sudah baik dengan dinamika efisiensi penyisihan bahan pencemar organik seiring mengikuti beban air limbah yang dikelola, penggunaan energi terbanyak yang ada pada IPAL ketiga rumah sakit didominasi oleh blower, pemantauan kualitas air limbah dan pemeliharaan alat IPAL dengan skor pembobotan diatas 0,5 yang menunjukkan bahwa pemeliharaan sudah efektif.

Kata kunci: beban air limbah, rumah sakit, kinerja IPAL, efisiensi penyisihan.



EVALUATION OF TREATMENT PROCESS PERFORMANCE AT HOSPITAL WWTP

ABSTRACT

Hospitals (RS) are required to have a Wastewater Treatment Plant (IPAL) so that the treated wastewater meets quality standards. Based on the facilities and service capabilities, there are five classes of hospitals, so that each hospital has a different type of WWTP. WWTP itself has several processes, namely processing, operating, monitoring and checking both the condition of the waste water and the equipment that must be carried out every day. This research was carried out at RSGM UGM representing a special type of hospital, RSUP Sardjito representing a type A hospital and RSA UGM representing a type B hospital, each of which is located in Yogyakarta, namely by examining the consistency of wastewater quality monitoring, equipment operation within one year from each house. hospital, analyzing the ability of WWTP in organic matter removal (COD parameter) through the calculation of removal efficiency. The results showed monitoring of wastewater quality both in terms of stability and reliability was good with the dynamics of organic pollutant removal efficiency in tune with the managed wastewater load, the most energy use in the three hospital WWTPs was dominated by blowers, monitoring wastewater quality and equipment maintenance WWTP with a weighting score above 0.5 which indicates that maintenance has been effective.

Keywords: wastewater load, hospital, WWTP, removal efficiency.