

ABSTRAK

Pengelolaan air limbah di Rumah Sakit Jiwa Daerah Kolonel H.M Syukur Jambi menjadi perhatian penting untuk menjaga kelestarian lingkungan dan kesehatan masyarakat. Penelitian ini bertujuan menganalisis efektivitas instalasi pengolahan air limbah (IPAL) Rumah Sakit Jiwa Daerah Kolonel H.M Syukur Jambi terhadap baku mutu Permen LHK-RI No. 68 Tahun 2016 dan mengkaji hubungan antar parameter air limbah. Data diperoleh dari pengujian laboratorium pada Desember 2024 dan data sekunder rumah sakit, yang dianalisis menggunakan metode deskriptif kuantitatif dan uji *korelasi Product Moment*. Hasil penelitian menunjukkan bahwa IPAL memiliki efektivitas cukup baik (80-89%) dalam menurunkan kadar pencemar. Parameter seperti pH, TSS, BOD, COD, amoniak, dan Coliform tergolong cukup efektif hingga efektif dalam memenuhi standar baku mutu. Namun, parameter TDS, detergen, dan minyak & lemak tergolong tidak efektif dalam pengolahannya. Uji korelasi menunjukkan hubungan kuat antara COD dan BOD ($r=0.984$) serta antara minyak & lemak dan amoniak ($r=-0.960$). Secara keseluruhan, terdapat perbedaan signifikan antara kualitas air limbah inlet dan outlet, menandakan keberhasilan proses pengolahan, meskipun beberapa parameter memerlukan penanganan lebih lanjut.

Kata kunci: Air Limbah Rumah Sakit, IPAL (Instalasi Pengolahan Air Limbah), Baku mutu, Efektivitas Pengolahan.

ABSTRACT

Wastewater management at the Kolonel H.M Syukur Regional Mental Hospital is a critical aspect of maintaining environmental sustainability and public health. This study aims to analyze the effectiveness of the wastewater treatment plant (WWTP) at the hospital against the quality standards set by the Minister of Environment and Forestry Regulation No. 68 of 2016 and to examine the relationship between wastewater parameters. Data were obtained from laboratory tests in December 2024 and secondary data from the hospital, which were analyzed using a descriptive method and the Product Moment correlation test. The results show that the WWTP has fairly good effectiveness (80-89%) in reducing pollutant levels. Parameters such as pH, TSS, BOD, COD, ammonia, and Coliform are classified as fairly effective to effective in meeting quality standards. However, the treatment for TDS, detergents, and oil & grease is classified as not effective. The correlation test indicates a strong relationship between COD and BOD ($r=0.984$), as well as between oil & grease and ammonia ($r=-0.960$). Overall, there is a significant difference between the quality of inlet and outlet wastewater, indicating a successful treatment process, even though several parameters require further handling.

Keywords: Hospital Wastewater, Wastewater Treatment Plant, Quality Standard, Treatment effectiveness