

GAMBARAN PENGOLAHAN LIMBAH CAIR
DI INSTALASI PENGOLAHAN AIR LIMBAH RUMAH SAKIT
BHAYANGKARA POLDA DIY

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ABSTRAK

Latar Belakang : Rumah sakit merupakan instansi yang cukup banyak menghasilkan limbah. Limbah tersebut dapat dikategorikan se-bagai limbah yang berbahaya maka diperlukan sistem pengolahan limbah cair rumah sakit sehingga ketika di keluarkan ke lingkungan tidak memiliki dampak bagi lingkungan.

Tujuan : Penelitian ini bertujuan untuk mengetahui gambaran pengolahan limbah cair di Instalasi Pengolahan Air Limbah di Rumah Sakit Bhayangkara Polda DIY tahun 2025 menggunakan parameter pH, BOD, COD, TDS, dan TSS.

Metode : Penelitian ini menggunakan metode deskriptif kualitatif dengan cara mengumpulkan data melalui pengujian sampel sebanyak 3 kali pengulangan ke laboratorium dan melakukan wawancara.

Hasil : Instalasi Pengolahan Air Limbah Rumah Sakit Bhayangkara Polda DIY menggunakan teknologi ABR (*Anaerobic Buffled Reactor*) sebagai sistem pengolahan yang dilengkapi dengan 6 unit penunjang yaitu unit Equalisasi, Anaerob, Anoksid, Aerob, Bak akhir dan Filter carbon dan UV. IPAL Rumah Sakit Bhayangkara Polda DIY dapat menurunkan kadar (*removal efficiency*) *Biochemical Oxygen Demand* (BOD), *Chemical Oxygen Demand* (COD), *Total Dissolved Solids* (TDS), and *Total Suspended Solids* (TSS), dengan persentase penurunan sebesar 70.91%, 55.37%, 8,39% and 83.81%.

Kesimpulan : Kualitas effluent air limbah Rumah Sakit Bhayangkara Polda DIY sudah memenuhi Perda DIY No. 7 Tahun 2016 tentang Baku Mutu Air Limbah.

Kata Kunci : IPAL, rumah sakit, kualitas air limbah

OVERVIEW OF LIQUID WASTE TREATMENT IN HOSPITAL WASTEWATER TREATMENT PLANT BHAYANGKARA POLDA DIY

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ABSTRACT

Hospitals are institutions that produce quite a lot of waste. The waste can be categorized as hazardous waste, so a hospital liquid waste treatment system is needed so that when it is released into the environment it does not have an impact on the environment. This study aims to find out the description of liquid waste treatment at the Wastewater Treatment Plant at Bhayangkara Hospital of the Yogyakarta Regional Police in 2025 using the parameters pH, BOD, COD, TDS, and TSS. This study uses a qualitative descriptive method by collecting data through sample testing 3 times to the laboratory and conducting interviews. The Wastewater Treatment Plant of Bhayangkara Hospital Pilda DIY uses ABR (Anaerobic Buffled Reactor) technology as a treatment system equipped with 6 supporting units, namely Equalization, Anaerobic, Anoxid, Aerobic, Final Tub and Carbon Filter dan UV. The Yogyakarta Regional Police Bhayangkara Hospital WWTP can reduce the level (removal efficiency) of Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Dissolved Solids (TDS), and Total Suspended Solids (TSS), with a percentage decrease of 70.91%, 55.37%, 8.39% and 83.81%. The quality of wastewater effluent at Bhayangkara Hospital of the Yogyakarta Regional Police has met the DIY Regional Regulation No. 7 of 2016 concerning Wastewater Quality Standards.

Keywords: WWTP, hospital, wastewater quality