

ABSTRAK

Kementerian Kesehatan Republik Indonesia
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EFEKTIVITAS PEMBUBUHAN LARUTAN KAPORIT TERHADAP DAYA SERGAP KLOOR PADA INSTALASI PENGOLAHAN AIR LIMBAH RSUD dr. SAYIDIMAN MAGETAN TAHUN 2024

(xii+ 40 halaman, 6 tabel, 4 gambar, 6 lampiran)

Sebagai indikator biologi sesuai dengan Pergub Jatim Nomor 72 Tahun 2013 tentang baku mutu air limbah bagi industry dan/atau kegiatan usaha lainnya di RSUD belum didapatkan data tingkat efektivitas larutan kaporit dalam pengolahan IPAL sehingga perlu penelitian untuk mengetahui jumlah larutan kaporit yang dibubuhkan sehingga diperoleh data daya sergap chlor dan sisa chlor pada IPAL tersebut. Tujuan penelitian ini adalah untuk mengetahui efektivitas pembubuhan larutan kaporit terhadap daya sergap klor pada Instalasi Pengolahan Air Limbah RSUD dr. Sayidiman Magetan

Jenis penelitian ini adalah penelitian kuantitatif dengan metode pra-eksperimen dan dikaji secara deskriptif. Desain penelitian yang digunakan adalah desain one group pretest posttest. Jumlah sampel yang diamati sebanyak 9 sampel diambil secara grab sampling. Pengambilan sampel dilakukan pada bak outlet setelah pembubuhan kaporit 100ml/menit.

Hasil penelitian, diketahui bahwa debit limbah cair pada IPAL RSUD dr. Sayidiman Magetan adalah 66,14m³/hari. Larutan konsentrasi kaporit yang digunakan dalam penelitian ini adalah 100 ml/menit dengan sisa chlor sebesar 5 mg/l-24 mg/l. Daya sergap chlor pada bak outlet adalah 8 mg/l-483 mg/l.

Hubungan antara konsentrasi kaporit, sisa klor, dan daya sergap klor dengan waktu kontak memiliki hubungan yang berbanding terbalik. Semakin bertambahnya waktu kontak maka, konsentrasi kaporit akan terus menurun hal tersebut juga di ikuti dengan penurunan sisa klor dan daya sergap klor. Peneliti menyarankan perlu dilakukan penelitian lebih lanjut tentang variasi debit larutan kaporit untuk menghasilkan daya sergap klor dan sisa klor yang lebih efektif

Kata Kunci: Rumah Sakit, Limbah Cair, Klorinasi, Sisa Chlor
Daftar Bacaan : 15 (2012-2023)

ABSTRACT

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EFFECTIVENESS OF APPLICATION OF CHORITE SOLUTION ON CHLORINE ABSORPTION AT THE WASTEWATER TREATMENT INSTALLATION OF RSUD dr. SAYIDIMAN MAGETAN IN 2024

As a biological indicator in accordance with East Java Governor Regulation No. 72 of 2013 concerning wastewater quality standards for industry and / or other business activities at the RSUD, data on the effectiveness of the chlorine solution in the treatment of WWTP has not been obtained, so research is needed to determine the amount of chlorine solution that is applied so that data on chlor absorption and residual chlor in the WWTP is obtained. The purpose of this study was to determine the effectiveness of chlorine solution on chlorine absorption at the Wastewater Treatment Plant of RSUD dr. Sayidiman Magetan.

This type of research is quantitative research with pre-experiment method and studied descriptively. The research design used is one group pretest posttest design. The number of samples observed was 9 samples taken by grab sampling. Sampling was carried out at the outlet tub after the chlorine was added at 100ml/min.

The results of the study, it is known that the discharge of liquid waste at the WWTP of dr. Sayidiman Magetan Hospital is 66,14m³/day. The chlorine concentration solution used in this research is 100 ml/min with a residual chlor of 5 mg/l-24 mg/l. Chlor absorptive power at the outlet basin is 8 mg/l-483 mg/l.

The relationship between chlorine concentration, residual chlorine, and chlorine absorption capacity with contact time has an inversely proportional relationship. As the contact time increases, the chlorine concentration will continue to decrease, which is also followed by a decrease in residual chlorine and chlorine absorption capacity. Researchers suggest that further research needs to be done on variations in the discharge of chlorine solution to produce more effective chlorine absorption and residual chlorine.

Keywords: Hospital, Liquid Waste, Chlorination, Chlor Remain.
Reading List : 15 (2012-2023)