

**PERENCANAAN *DETAIL ENGINEERING DESIGN* (DED) INSTALASI
PENGOLAHAN LINDI (IPL) PENGEMBANGAN TEMPAT
PEMROSESAN AKHIR (TPA) SUKOHARJO KABUPATEN PATI
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ABSTRAK

TPA Sukoharjo Pati memiliki pengolahan instalasi pengolahan lindi. Namun instalasi pengolahan lindi tidak dapat mengolah lindi yang masuk kedalamnya. Hal itu diketahui dari hasil sampling dari Dinas Badan Lingkungan Hidup Kota Semarang di TPA Sukoharjo yang hasilnya berdasarkan Perda Jateng No 5 Tahun 2012 dan hasilnya tidak memenuhi standar. Berdasarkan hasil sampling didapatkan nilai : TSS (240 mg/l), BOD5 (235 mg/l), COD (502 mg/l). Permasalahan ini diperparah dengan tidak berfungsinya saluran lindi sehingga lindi tidak mengalir menuju instalasi pengolahan lindi. Dari permasalahan tersebut perlu adanya evaluasi eksisting instalasi pengolahan lindi. Sehingga dapat dilakukan pengotimalan pengolahan lindi. Tahapan evaluasi dan optimisasi antara lain : 1) menentukan debit lindi untuk mengetahui volume dari pengolahan yang dibutuhkan. 2) menentukan alternatif terpilih dari pengolahan lindi 3) Mendesain dan membangun pengolahan lindi serta perhitungan biaya (RAB). Bangunan pengolahan lindi harus dapat memproses lindi agar efluen memenuhi baku mutu hasilnya berdasarkan Perda Jateng No 5 Tahun 2012. Hasil perencanaan debit lindi menunjukkan debit sebesar 42,53 m³/hari. Instalasi pengolahan lindi terdiri dari kolam anaerobik, aerated lagoon, kolam sedimentasi, dan karbon aktif. Anggaran untuk membangun instalasi pengolahan lindi sebesar Rp. 1.124.402.401

Kata kunci : lindi, karakteristik lindi, unit pengolahan lindi

ABSTRACT

[Detail Engineering Design (DED) Leachate Treatment Plant Development of Landfill Sukoharjo Pati] Landfill Sukoharjo Pati (hereafter called as TPA Sukoharjo) has an installation of leachate processing. However, the installation does not function quite properly to process the leachate. As represented by sampling from Department of Environment of Semarang City in TPA Sukoharjo excerpted on Local Regulation No.5 Year 2012, there had been an insufficient condition to meet the standard. Through sampling from this study, the result showed that: TSS was 240 mg/l, BOD5 was 235 mg/l, and COD was 502 mg/l. Additionally, leachate pipe was clogged--causing leachate was deferred toward processing installation. As a consequence, an evaluation of leachate-processing installation must be conducted. Furthermore, it is expected that optimization of the installation could be soon implemented. The optimization might comprise of: (1) determine the leachate debt to point out the volume of processing needed; (2) determine alternate processor of leachate; (3) design and establish leachate processing equipment and reckon the cost. It is imperative that the building of leachate-processing installation ought to function properly; therefore effluent is able to be reached in accordance with Local Regulation of Central Java No.5 Year 2012. The result of leachate debit planning showed that debt level is 42,53 m³/day. The leachate-processing assembly comprises of an anaerobic pool, aerated lagoon, sedimentation pool, and active carbon. The budget estimated to build one is Rp 1.124.402.401

Keywords : *leacate, Landfill Sukoharjo Pati, Installation of Leachate Processing*