

INTISARI

Pengembangan Kawasan Industri Kendal atau 'Kendal Industrial Park' memiliki potensi untuk meningkatkan volume arus barang di Pelabuhan Tanjung Emas. Terminal barang merupakan salah satu infrastruktur vital dalam penyelenggaraan sistem logistik nasional. Sesuai dengan Rencana Induk Pelabuhan Tanjung Emas, Pelabuhan Kendal perlu mengembangkan terminal barangnya sendiri.

Perancangan terminal barang dilakukan dengan empat tahap analisis. Pertama, dilakukan studi lokasi rencana menggunakan analisis multikriteria dari standar yang tersedia dari PM 102 Tahun 2018 dan pemetaan aplikasi QGIS terhadap simpul transportasi. Selanjutnya dilakukan perancangan *layout* utama terminal barang bersamaan dengan peramalan volume barang dengan rencana 10 tahun ke depan menggunakan data yang diperoleh dari PT Pelindo III. Analisis terakhir berupa perancangan drainase dan kebutuhan air kawasan terminal barang.

Hasil perancangan menunjukkan bahwa lokasi terminal barang cukup strategis dengan nilai analisis multi kriteria 7.5/10 dan dengan 10 simpul transportasi substansial di sekitar kawasan. Layout seluas 21.213 m² dengan fasilitas utama (gudang, lapangan bongkar muat, jembatan penimbang) dan fasilitas penunjang (mushola, bengkel, kantin) serta fasilitas pelayanan air dengan rancangan drainase yang didapat debit maksimum sebesar 1,18 m³/s (saluran primer) dan 1,28 m³/s (saluran sekunder) sehingga digunakan *u-ditch* tipe 100x100x120. Selain itu direncanakan juga sistem air limbah dengan bak pengendap awal, biofilter anaerob dan aerob, dan bak pengendap akhir. Terminal barang akan mampu menunjang bongkar muat barang umum yang diperkirakan naik dalam 10 tahun menjadi 8.026.284 Ton/ m³ (31.4%).

Kata kunci: Kawasan industri, Terminal barang, Perancangan, Logistik.

ABSTRACT

The development of Kendal Industrial Park has the potential to increase the flow of goods volume in Tanjung Emas Port. Cargo terminal is one of the vital infrastructures in the implementation of the national logistics system. In accordance with the Tanjung Emas Port Master Plan, Kendal Port needs to develop its own cargo terminal.

The design of cargo terminal is carried out with four stages of analysis. First, a study of the location was carried out using a multi-criteria analysis using the available standards of '*Peraturan Menteri No. 102 Tahun 2018*' and by mapping the QGIS application to the transportation nodes nearby. Furthermore, the main layout of the cargo terminal is designed along with the forecasting of goods volume with a plan for the next 10 years using the data obtained from PT Pelindo III. The final analysis is forming the drainage design and water demand for the terminal area.

The design results show that the location of the freight terminal is quite strategic with a multi-criteria analysis value of 7.5/10 and with 10 substantial transportation nodes around the area. The layout covers 19,124 m² supported with main facilities (warehouse, loading and unloading yard, weighing bridge) and secondary/supporting facilities (mushola, workshop, canteen), also water treatment facility such as drainage planning which resulted 1,11 m³/s (primary channel) and 1,28 m³/s (secondary channel) so that 100x100x120 type *u-ditch* is chosen. In addition, a wastewater system with pre-settling tanks, anaerobic and aerobic biofilters, and final settling tanks is also planned. The cargo terminal will be able to contain loading and unloading activities of general cargo which is estimated to increase in 10 years to 8,026,284 Ton/m³ (31.4%).

Key words: Industrial area, Cargo Terminal, Design, Logistic.