THE PLANNING OF THE UREA BULK JETTY IN BONTANG, EAST BORNEO

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Bontang is a region whose economies are supported by industrial activities, especially the LNG industry, fertilizer, and coal. After the LNG industry, the second largest is the fertilizer industry which is the main industrial commodities are ammonia and urea. Urea is a common material being transported in dry bulk form, and in large quantities at a time. Demand for urea production is increasing from year to year. Even in the period between 2005 and 2007, production increased by 8000 tonnes to meet domestic needs alone. This led to the need to facilitate the development of freight transport in bulk and at a time. Therefore, it is necessary to develop the sea transport (ports) specifically bulk urea to facilitate the distribution process.

The purpose of this final assignment is to get a layout that precisely matches the requirements and to plan the structure of the dock to the ship loaded with a capacity of 30,000 DWT bulk urea and implementation of appropriate methods to carry out such development as well as to estimate how much the construction cost incurred.

From the analysis, it was found that the jetty planned to be Quadrant Arm Loader system, consisting of a trestle structure with the dimensions of 45 x 4 m², pivot with the dimensions of 4 x 4 m², with a loading arm radial quadrant shape, breasting dolphin with the dimensions of 5.6 x 6.4 m², and mooring dolphin with the dimensions of 5.6 x 5.6 m². In the dredging calculation, the volume total to be dredged is 546,898.828 m³ and on the
budget plan, the obtained required fee is Rp. 104,802,642,000,00,-

Keywords: bulk urea, quadrant arm loader, dredging, implementation methods, budget plan