

ABSTRACT

PT. Pindad Mitra Inti Sejati (IPMS) is one of the manufacturing company construction sector that produces telecommunications tower in accordance with the order (job order). In the construction sector there are 6 units of production, namely telecommunications tower unit cutting, punching unit, marking unit, welding unit, erection unit, and galvanizing unit that does not exist on the production floor PT. IPMS. In the production process of the production of telecommunication tower occurs flow material irregularity, the distance of movement of goods far, the frequency of material movement, the building area that is not optimal, and the placement machine that is not uniform. Thus, it could be known, PT. IPMS not have an efficient layout of factory facilities. This resulted in the material handling cost is big enough, while the decline as a parameter measuring an efficient layout of facilities is an material handling costs (OMH) is the minimum.

To minimize material handling cost (OMH) did design of factory facilities layout in construction sector PT. IPMS. In this research, design of factory facilities layout in construction sector created in two types, namely process layout and group technology layout. Both the layout bring out the initial layout, from-to chart, move-cost chart, which are the input for CRAFT algorithm to design the layout to get the best of both types is the layout. CRAFT algorithm in this research is in software WinQSB version 2. The best results from both types of layout will be selected to be an efficient layout of factory facilities to compare with the material handling cost (OMH).

From this research obtained the result of design an efficient layout of factory facilities in construction sector PT. IPMS is the design of group technology layout. The design of layout selected has the lowest OMH compared with OMH existing layout and OMH from design process layout amounting to Rp 5,562,500.00 and material handling equipment requires fewer than the existing layout and design of the process layout are fork lift and handtruck.

Keywords: *layout, CRAFT algorithm, material handling cost (OMH)*