

ABSTRACT

PT Sansan Saudaratex is a company engaged in the field of garment. Products produced by this companies are apparel such as shirts, polo shirts, pants, and others. In the production process there is a material movement activity that involves 38.22% of the available time in one day. This is obtained by observation, analysis of the process activity mapping and value stream mapping categorized as waste transportation. In an effort to minimize the activity of material movement, it needs an improvement. The design of point of use storage systems and facility layout is one effort that can reduce and even eliminate the movement of material activity. In this research, the design of point of use storage system and facility layout based on the criteria of minimization of material displacement distance. The point of use storage system is supported by auxiliary tools in the form of boxes to store material beside the work station and the proposed layout design is done with CRAFT algorithm found in WinQSB software. This research resulted in a reduction in distance for material transfer activities. This is indicated by the decrease in distance movement by the operator from 238.2 meters to 93.6 meters and the time from 334.266 seconds to 131.349 seconds in one time of material movement activity. Therefore the design of the point of use storage system and the proposed layout can reduce the distance used for material movement.

Keywords: *Waste transportation, Lean manufacturing, Layout, POUS, CRAFT, Minimize distance*