ABSTRACT

PT. XYZ Farma is a company engaged in pharmaceuticals. At PT. XYZ Farma the production process is separated into two types; the Small Volume Parenteral Production Plant (SVP) and the Large Volume Parenteral Production Plant (LVP). Infusions with the variety volume of 250 ml, 500 ml, 1 liter and 2.5 liters are mostly produced at the LVP plant. In recent years, PT XYZ Farma has experienced an increase in infusion demand which inherently led the increment of the production and the packaging line to a 5 as an effort to increase its production. However, the increment of the production itself has caused waste in the packaging area. Waste transportation is the biggest waste in the packaging area which give a rise to a greater material transfer distance. At the packaging area of PT XYZ Farma, there is a small part of the packaging area, namely the WIP area and the inspection area which will be passed by during material transfer. Based on the problems above, the main goal of this research is to design the layout of the proposed facilities to minimize waste transportation in the form of minimizing the distance of material movement. In this study, the BLOCPLAN algorithm was used to design the facility layout. Based on the results of the research conducted, the proposed layout can reduce the total distance of material movement in the WIP area by 14.2%, the inspection area by 8.4% and the overall packaging area by 607.5 meters / shift or by 22.7%.

Keywords: Layout, BLOCPLAN Algorithm, Material Movement, Facilities.