EVALUATION AND IMPROVEMENT ON MANUAL HANDLING ACTIVITY TO DECREASE ACCIDENT COST (CASE STUDY: STERILIZATION DEPARTMENT AND MOLDING DEPARTMENT OF PT OTSUKA INDONESIA)

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Abstract

Manual handling operation is one of the most important parts of ergonomics. This activity covers more than lifting heavy weights and affects more than the back. Some risks in manual handling activity can possibly cause work injury, and eventually lead the injury into working loss time which cause the company to pay accident cost. Working posture of operators while they perform their job plays an important role on the cause of operators getting injured. Therefore, this research is conducted to analyze accident cost in sterilization department and molding department of PT Otsuka Indonesia by considering operators’ working posture. This research is initiated to identify manual handling activity by using Quick Exposure Checklist (QEC) in order to find the cause of injury and also give some recommendation to the company. The recommendation for manual handling activity is analyzed with the help of Mannequin Pro V10.2. Also, the implementation of chosen recommendation will be compared with existing condition in order to measure its effect with accident cost. The comparison between existing condition and improvement condition can be seen through simulation with the help of Ventana Simulation. Improvement scenario on sterilization department can reduce the moment for working posture to 24%. Meanwhile by implementing the
scenario on molding department, the moment for working posture has decreased 52%.

Keywords: Manual handling activity, working posture, Quick Exposure Checklist.