ABSTRACT

PT. XYZ is one of the textile companies located in Majalaya, Bandung Regency, West Java Province established since 1976. In the production process one of the important role is the process of dyeing. The dyeing machine has the highest frequency of damage compared to other Jet Dyeing machine in the dyeing unit.

In this case required Life Cycle Cost method to determine the number of maintenance set crew and optimal retirement age of a machine. To get the total optimal Life Cycle Cost, it is necessary to process the costs with Life Cycle Cost method, namely sustaining cost and acquisition cost. Another method used is the Overall Equipment Effectiveness method to determine the performance and the level of effectiveness of a machine. Another thing done on the method of Overall Equipment Effectiveness is the determination of six big losses to determine what factors cause the value of Overall Equipment Effectiveness is low.

Based on the Life Cycle Cost method obtained the lowest total Life Cycle Cost which is Rp. 12.675.632.621 *with a five year retirement age of the machine and the amount of the maintenance crew as much as 4 people. Based on the calculation of Overall Equipment Effectiveness method obtained Overall Equipment Effectiveness value Jet Dyeing K machine of 84.59%. These results are still less in order to meet the standards set by Japan Institute of Plant Maintenance amounted to 85%. In six big losses it is known that the most influential factor to decrease the effectiveness of Jet Dyeing K machine is idling and minor stoppages factor, which is 34%.*

Keywords : Life Cycle Cost, Overall Equipment Effectiveness, Six Big Losses