

ABSTRACT

PT XYZ is one of the companies that is engaged in printing papers or newspapers. The Tower 4 machine is one of the printing machine units which functions to produce newspapers. So, the machine must always be ready in order to fulfill the company's production target and income. Because of the high frequency damages on a Tower 4 machine (there are 369 damages in 2016 until 2018 that caused the lower quality of the machine, it is necessary to carry out activities that could improve the effectiveness of the Tower 4 machine. In this study, the activities that will be carried out is Total Productive Maintenance (TPM) which aims to increase the effectiveness of the Tower 4 machine. Before implementing the TPM implementation, the analysis is carried out using the Overall Equipment Effectiveness (OEE) method that analyzes the existing condition of effectiveness of the Tower 4 machine. Based on the effectiveness of Tower 4 machine in 2016-2018 using the OEE method, it is amounted to 13.93% in 2016, 13.25% for 2017, and 12.77% for 2018. The OEE value has not yet reached the World Class standard value which has been set at 85%. Then a Six Big Loss analysis is carried out which causes a low OEE value. The Six Big Loss factors that most influence the OEE value of Tower 4 machine are Reduced Speed Loss and Idling and Minor Stoppage, which each of them are amounted to 57.88% and 22.25% in 2016, for 2017 at 62.08% and 62.08%, and in 2018 at 68.24% and 17.02% of the total Six Big Loss.

Keywords: *Total Productive Maintenance, Overall Equipment Effectiveness, Effectiveness, Causal Diagram, Downtime.*