

ABSTRACT

PT Glopac Indonesia Cirebon is a company that produces food and beverage packaging made of paper, one of its products is Paper Cups. The CP14 Cup Forming Machine is a production machine that works for a long time. Therefore, the reliability of the machine will decrease every year that the machine is damaged. The company has implemented preventive maintenance but it is still not optimal because there is still damage to the machine. This research focuses on providing machine breakdown intervals and optimal maintenance schedules so that maintenance costs will be effective and efficient. By using the method of Reliability and Risk Centered Maintenance will overcome machine damage to the company. In determining the critical components of the machine, this research uses the Failure Mode Effect and Critically Analysis (FMECA) method by calculating the Risk Priority Number and obtaining 2 (two) critical components, namely Roulette and Incurl. After processing the data using the RRCM obtained proposed maintenance task and total maintenance costs. There are provisions for 3 (three) proposed maintenance tasks with 2 (two) scheduled on-condition tasks and 1 (one) scheduled discard task. For the scheduled on-condition task on the roulette component in failure mode, a scale check is carried out every 3 (three) weeks and the incurl component in failure mode is checked every 4 (four) weeks, for the scheduled discard task on the roulette component in failure mode, the broken belt is replaced every 5 weeks. It was found that the total for the proposed maintenance cost was Rp. 21,986,107 while the total for the existing maintenance cost at the company was Rp. 28,751,063. Therefore, the proposed maintenance cost value is lower by around Rp. 6,764,956 which can save on previous maintenance costs.

Keywords — [maintenance, preventive maintenance, corrective maintenance, Reliability and Risk Centered Maintenance]