

ABSTRACT

PT. Universal Robina Corporation Indonesia-Plant II is a manufacturing company in the field of branded food and soft drinks. PT Universal Robina Corporation (URC)-Plant II produces several kinds of snack products so that there are several production lines. One of the products produced is The Natural Crackers Co. (TNCC). In producing TNCC products, the company uses Wolf machines in the packaging area. In 2021 the Wolf engine experienced downtime due to the high frequency of breakdowns in one year, so that sometimes the output produced did not match the target per day. The high frequency of damage is due to the company carrying out maintenance activities that have not been considered based on the characteristics of the damage. In supporting the Wolf machine to work according to its function, the company must carry out maintenance activities that consider based on the characteristics of the damage. Therefore, it is necessary to analyze Reliability and Risk Centered Maintenance (RRCM) to obtain a proposed maintenance policy and the total cost of maintenance that must be incurred. In determining the critical components, this study uses the Risk Matrix and selected one critical component, namely Cutting Knife. Based on calculations using the RRCM method, the proposed maintenance task is obtained for periodic maintenance time intervals. Based on the results of data processing, 2 proposed maintenance tasks were obtained, namely the scheduled discard task and the scheduled restoration task. For scheduled discard tasks, the cutting knife components are repaired at 8-week intervals. Meanwhile, for the scheduled restoration task, the components of the cutting knife are replaced every 9 weeks. The total proposed maintenance cost for preventive maintenance activities is Rp14.494.963 per year, the cost is Rp12.264.969 less than the total cost of existing maintenance.

Keywords — Maintenance, Reliability and Risk Centered maintenance, Proposed Maintenance Task, Maintenance Interval