

ABSTRACT

PT XYZ is a company engaged in the textile industry. One of the machines that exist on PT XYZ is Jet-Dyeing machine. Jet-Dyeing Machine is used for dyeing machines and give color to the fabric. This machine has an important role in the production process in PT XYZ, the determination of the proper care activities is an important thing to support the company's productivity. In this study conducted by several methods such as RCM (Reliability Centered Maintenance) are used in the determination of the appropriate task with his characteristic failure. And a focus on the study of critical systems and subsystems based on the number of machines Jet-Dyeing happened and by using analysis of RPN (Risk Priority Number) to get the critical sub-systems based on the risks that the failure. Analyzing the risk of failure machine use method Risk Based Maintenance. If the machine has failure to critical subsystem, the company's risk is Rp. 132,667,184.22. The results of data processing using RCM, obtained total cost to implement the proposed treatment is Rp 343,132,082. By implementing the proposed maintenance activities, the company could make savings of Rp 116,044,673.15.

Keywords: *Preventive Maintenance, Reliability Centered Maintenance, Risk Based Maintenance.*