

ABSTRACT

PT Konimex Pharmaceutical Laboratory is a company in the field of pharmaceutical and food production. Its operations, there are some machines and equipment for favor of each process. From January 2017 to October 2017, one of the production machine named Eurosicma 75A having high availability's target at 100 % each month. Beside that, the target only be achieved once and having high frequencies of downtime 37 failure in a period. The condition with high downtime and high goals, encouraging companies to assess and evaluate the performance of the production machine. How that is done is to assess and evaluate the performance of the machine with Reliability Availability Maintainability (RAM) and Overall Equipment Effectiveness (OEE) methods. The data used MTTF and MTTR from all constituent subsystems of the machine. Based on the calculation method of RAM, lead to a model Reliability Block Diagram (RBD) that the system obtained Reliability of 62.67% in the 312 hours based on Analytical Approach. The subsequent calculation of Maintainability RAM, obtained with the methods that the system has improved opportunities in the interval of one to 528 hours to return to the existing condition with odds of 100%. The value of Inherent Availability of the system is 86% based on Analytical Approach. As for the value of the Operational Availability of the system is 83%. Overall Equipment Effectiveness values obtained from three factors, namely Availability Rate, Performance Rate, and Quality of Rate of 54.05%. Automated calculation of the Six Big Losses, the main factors that most affect the performance of the machine to be less good at idling and minor stoppages which are the losses in terms of performance.

Keyword : Reliability, Availability, Maintainability (RAM), Reliability Blok Diagram (RBD), Overall Equipment Effectiveness (OEE), Six Big Losses

