

ABSTRACT

At PT XYZ Farma, which is located in Jakarta Selatan, several machine damage were occurred and causing downtime which will decrease productivity and causing delay of product supply to the market, thus reducing the factory operational performance. In addition, downtime will also increase production costs so that products become less competitive. To prevent machine damage, it is necessary to perform effective preventive maintenance activities. This study aims to determine the cause of machine damage at PT XYZ Farma and determine actions for improvement. The research methods used are quantitative descriptive and qualitative. Data on Preventive Maintenance, Corrective and Breakdown Maintenance were collected from 5 main critical machines during the period of January 2020 to May 2023. Root Cause Analysis (RCA) using fishbone diagrams discussed during Focus Group Discussion is used to find the cause of machine damage. Based on the results of RCA, it is known that there are 3 main problems that cause machine damage, which are the age of spare parts, incomplete preventive maintenance procedures, and lack of training for operators/ technicians for machine operation or maintenance. Furthermore, corrective actions are formulated through Focus Group Discussion which aims to address the root cause of the problem such as preparation of spare part stock, improvement of preventive maintenance procedure, and training of operators/ technicians so that subsequently the effectiveness of Preventive Maintenance can be increased, and downtime reduced.

Keywords: Downtime, Preventive Maintenance, Corrective Maintenance, Breakdown Maintenance

ABSTRAK

Pada Pabrik PT XYZ Farma, yang berlokasi di daerah Jakarta Selatan, terjadi beberapa kasus kerusakan mesin yang menyebabkan mesin tidak dapat digunakan (*downtime*) sehingga menurunkan produktivitas dan menyebabkan terhambatnya pasokan produk ke pasar serta mengakibatkan turunnya kinerja operasi pabrik. *Downtime* juga meningkatkan biaya produksi sehingga produk menjadi kurang kompetitif. Untuk mencegah kerusakan mesin, perlu dilakukan kegiatan pemeliharaan mesin yang efektif. Penelitian ini bertujuan untuk mengetahui penyebab kerusakan mesin di PT XYZ Farma serta menentukan tindakan untuk perbaikannya. Metode penelitian yang digunakan adalah kuantitatif deskriptif dan kualitatif. Data *Preventive Maintenance*, *Corrective* dan *Breakdown Maintenance* dari 5 mesin utama digunakan sebagai data penelitian yang dikumpulkan selama periode tahun Januari 2020- Mei 2023. *Root Cause Analysis* (RCA) menggunakan *fishbone diagram* melalui *Focus Group Discussion* digunakan untuk menemukan penyebab kerusakan mesin. Hasil RCA menunjukkan bahwa ada 3 penyebab utama kerusakan mesin yaitu usia *spare part*, kurang lengkapnya prosedur *preventive maintenance*, serta kurangnya pelatihan terhadap operator dan teknisi untuk pengoperasian atau perawatan mesin. Selanjutnya tindakan perbaikan dirumuskan melalui *Focus Group Discussion* antara lain mengadakan stock *spare part*, perbaikan prosedur *preventive maintenance*, dan pelatihan teknisi/ operator yang bertujuan untuk mengatasi akar permasalahan sehingga selanjutnya efektivitas *preventive maintenance* dapat ditingkatkan dan jumlah *downtime* berkurang.

Kata kunci : *Downtime*, *Preventive Maintenance*, *Corrective Maintenance*, *Breakdown Maintenance*