ABSTRAK

CV. Iso *Rubber* merupakan perusahaan pembuatan barang setengah jadi (*rubber*) berupa *compound.* CV. ISO *Rubber* merupakan pemasok *compound* kepada konsumen secara langsung ataupun menjadi pemasok kepada perusahaan lanjutan yang membuat ban secara utuh. Di CV. ISO *rubber* terdapat tiga unit departemen yaitu *inventory* (Gudang) sebagai tempat untuk menyimpan bahan baku maupun produk jadi, departemen *production* (produksi) sebagai tempat produksi bahan baku menjadi produk jadi, yang terakhir departemen *maintenance* (perawatan) yang memiliki tugas menangani masalah perawatan dan perbaikan mesin jika terjadi masalah terhadap mesin. Berdasarkan data yang telah didapatkan dari perusahaan pada pengamatan. Pada proses produksi ada 5 mesin dalam 1 line yaitu terdapat 2 mesin *mixing,* 2 mesin *pressing* dan 1 mesin cetak. Dan mesin yang mengalami memiliki *downtime* tertinggi yaitu mesin *mixing 1* sebesar 4,13% hal tersebut disebabkan belum ada kegiatan perawatan mesin secara berkala serta mekanik banyak waktu menganggur. Maka dari itu diperlukan analisa kegagalan yang kemudian memberikan usulan kebijakan perawatan pada perusahan agar mesin tidak memiliki *downtime* tinggi serta mekanik tidak mempunyai banyak waktu menganggur. *Reliability Centered Maintenance II* ialah metode yang dapat mengevaluasi tindakan perawatan tiap komponen. Dengan metode ini dapat mengetahui nilai RPN tertinggi dan tindakan perawatan yang tepat sesuai akar penyebabnya dalam bentuk RCM II *Decision Worksheet.* Dari hasil penelitian didapatkan 5 RPN tertinggi yaitu Motor Listrik = 120, *Air Cylinder* = 105, Panel Listrik = 96, Rumah Rotor = 72, *Pressure Lid* = 60. Mesin *mixing* 1 dengan 5 komponen yang memiliki nilai RPN tertinggi, selanjutnya dilakukan *logic tree analysis* (LTA) untuk menetukan jenis perawatan yang layak, optimal dan cocok dalam menangani masing-masing *failure mode.* Kemudian dilakukan analisa menggunakan *fishbone* diagram untuk mengetahui akar penyebab kegagalan yang belum di ketahui dalam tahapan LTA sehingga nantinya didapatkan solusi sesuai akar penyebabnya dan yang terakhir didapatkan *task selection* sebagai usulan tindakan dalam bentuk RCM II *decesion worksheet.*

Kata Kunci : Analisa Perawatan, *Reliability Centered Maintenance II*, Mesin *Mixing* 1

ABSTRACT

CV. Iso Rubber is a company that manufactures semi-finished goods (rubber) in the form of a compound. CV. ISO Rubber is a supplier of compounds to consumers directly or a supplier to advanced companies that manufacture tires as a whole. In CV. ISO rubber has three departmental units, namely inventory (warehouse) as a place to store raw materials and finished products, production department (production) as a place to produce raw materials into finished products, the last is the maintenance department (maintenance) which has the task of handling maintenance and repair problems. machine if there is a problem with the machine. Based on the data that has been obtained from the company on the observation. In the production process there are 5 machines in 1 line, namely 2 mixing machines, 2 pressing machines and 1 printing machine. And the machine that experienced the highest downtime was the mixing machine 1 of 4.13% this was due to the absence of regular machine maintenance activities and the mechanics who had a lot of idle time. Therefore, a failure analysis is needed which then provides a maintenance policy proposal to the company so that the machine does not have high downtime and mechanics do not have a lot of idle time. Reliability Centered Maintenance II is a method that can evaluate maintenance actions for each component. With this method, it is possible to find out the highest RPN value and appropriate treatment actions according to the root cause in the form of an RCM II Decision Worksheet. From the results of the study, it was found that the 5 highest RPNs were Electric Motor = 120, Air Cylinder = 105, Electrical Panel = 96, Rotor House = 72, Pressure Lid = 60. Mixing machine 1 with 5 components that had the highest RPN value, then performed logic tree analysis (LTA) to determine the type of treatment that is feasible, optimal and suitable in handling each failure mode. Then an analysis is carried out using a fishbone diagram to find out the root causes of failures that are not yet known in the LTA stage so that later a solution is obtained according to the root cause and the last is task selection as a proposed action in the form of RCM II decession worksheet.

Keywords: *Maintenance Analysis, Reliability Centered Maintenance II, Mixing Machine 1*