

ABSTRACT

PT. XYZ is a national pesticide company that has been established since 1979. The current issue is the lack of preventive maintenance actions on the Carbofuran Mixer machine, particularly on the Belt Conveyor component. This has led to a high frequency of Time to Failure (TTF) and Time to Repair (TTR) during corrective maintenance activities, which in turn hampers the production process. The Carbofuran Mixer machine is operated continuously on working days by operators for the production process of insecticide products, where one of the processes utilizes the Belt Conveyor as an auxiliary tool. Therefore, it is necessary to implement a structured and scheduled preventive maintenance program based on the Reliability Centered Maintenance (RCM) method. The RCM method aims to determine the optimal preventive maintenance interval for the Belt Conveyor component by balancing the Time to Failure (TTF) and maintenance costs. The application of the RCM method has resulted in a proposed maintenance task, recommending a scheduled restoration task for the pulley component every thirteen weeks or four times a year.

Keywords: Belt Conveyor, Reliability Centered Maintenance (RCM), Preventive Maintenance