

ABSTRACT

PT. XYZ – Plant PP is one of the companies in Indonesia that produces plastics, namely olefins, polyolefins, styrene & monomer, and butadiene. This research was carried out only on polypropylene plants that produce polypropylene which is one of the polyolefin products. In this plant there are 3 pelleter machines, the function of the pelleter machine is used to process raw materials from resin to solid and small round shapes like pellets. According to historical data, pelleter machine 1 is most frequently damaged, resulting in high downtime. This final project performs an analysis using the Reliability Centered Maintenance (RCM) method to obtain a proposed maintenance time interval policy. In determining critical components, this research uses a Risk Matrix which is selected as the critical component, namely the cutter. By using the RCM method, proposals for maintenance tasks are obtained for regular maintenance time intervals. Based on the results of data processing, the proposed maintenance tasks are obtained, namely Scheduled Restoration Tasks and Scheduled Discard Tasks for component cutters. On the cutter component, the Scheduled Restoration Task is repaired every 8 weeks and the Scheduled Discard Task every 5 weeks.

Keywords — Maintenance, Risk Matrix, Reliability Centered Maintenance (RCM)