

ABSTRACT

Tasikmadu Sugar Factory is the biggest sugar factory in the region of Surakarta, Central Java. Production activities are important for PG Tasikmadu. PG Tasikmadu perform production once a year, ie from June until October. Production activities are directly related to production machinery, therefore, as much as possible PG Tasikmadu minimize any damage to the machine so that the production process can go smoothly. To minimize damage to machinery, PG Tasikmadu perform maintenance on production machines. Treatment is carried out preventive maintenance to outside the mill, and corrective maintenance for the rollers inside. But in reality, production machinery is still a lot that were damaged, especially the machines at Mill Station.

This study using risk-based maintenance (RBM), which is a methodology that aims to reduce the overall risk that may occur as a result of the unexpected failure of the operating facilities. Reduced risk is the risk that its value is greater than acceptance criteria. Used in this study acceptance criteria of Rp 10.000.000,00 for any damage to the machine. Risks resulting from damage to the machine at the mill station value is greater than the specified acceptance criteria. Therefore, proper care planning is necessary to reduce risk. This research produces an optimal time interval for treatment that can reduce risk. The resulting time is 35 hours for Unit Gilingan, 60 hours for Meja Tebu, 158 hours for Hammer Sheeder, 75 hour for Cane Carrier, 165 hours for Elevator tebu, and 88 hours for Cane Knife.

Key words: Maintenance, corrective maintenance, preventive maintenance, acceptance criteria, Risk Based Maintenance