

ABSTRACT

As the provider of the national electricity company, PT PLN has many power plants to serve electricity supply in the entire territory of Indonesia. Maintain the sustainability of operational power plant and increasing capacity of national electricity becomes very significant in supporting the availability of electricity supply national. PT PLN Pusat Pemeliharaan Ketenagalistrikan Unit Workshop I is one of supporting units in PT PLN that represents the main task to handle maintenance, repair, and overhaul. Based on the interview with the assistant manager of engineering, marufuku is one of highly influential in order fulfillment components power plant for PLTMH. This machine is a CNC machine with 3 axis that has the function of drilling, boring, and milling with high precision. It takes the proper machine maintenance plan so that machine is able to operate with optimal.

Record data indicates that marufuku has downtime that exceeds the tolerance set. The risks are borne by this unit when marufuku in downtime is Rp 17.688.201 that exceeds the risk acceptance criteria is Rp 2.583.294. Therefore required planning time overhauling maintenance for marufuku.

By using the method Risk Based Maintenance (RMB) which aims to reduce the risk that occur as a result of damage to the machine. RBM is method that aims to reduce the probability of the occurrence of failure on a system in operating of their functions and risk failure that occurred by optimizing machine maintenance time.

With Risk Based Maintenance (RBM) on this research, recommendation of interval to overhaul maintenance is 75 hours and the risks that is obtained is RP.1.508.012 which is still within in acceptance risk acceptance criteria .

Keywords: PT PLN, Maintenance Management, Marufuku, Risk Based Maintenance