ABSTRACT

Steel industry is a strategic industry that is used as an important raw material for industries as a whole, for infrastructure, production of capital goods, transportation, automotive, and weaponry. According to the World Steel Association, in 2014 per capita steel consumption of Indonesia reached 62.2 kg / capita, but the figure is still relatively low. The Indonesian government is now aware of this and plans to increase national steel consumption. One way to reduce the losses that occur is to increase the RAM (Reliability Availability Maintainability) of the CCM 3. In RAM calculations used modeling RBD (Reliability Block Diagram) to facilitate understanding of the system. The cost of the RAM problem can be determined by using the COUR (Cost of Unreliability) method. Results of data processing using RAM with RBD modeling obtained the value of system reliability of 28.44% at t = 936 and the value of machine maintainability reached 100% at least takes 13 hours. With inherent availability value of 99.47% and operational availability of 99.44%. Based on the evaluation that has been done using the company policy and Key Performance Indicator IVARA, the availability indicator has reached the target indicator given. From the calculation result using RAM got COUR value is Rp 5.086.109.491,00 based on downtime or corrective time.

Keywords : Availability, Cost of Unreliability, Key Performance Indicator, Maintainability, Reliability, Reliability Block Diagram