ABSTRACT

PT. XYZ is one of the largest Newspaper producing companies in West Java. Every day the company is to be able to produce nearly 100,000 copies every day. To fulfill daily newspaper orders on time. One way to minimize the losses that might have to be borne by the company is to increase the reliability of the production system itself and the Cost of Unreliability to find out how much the costs generated by machine reliability problems. The data in the form of Mean Time To Repair, Mean Time To System Failure and Mean Downtime are useful to assess the performance of the system that works. Then the results of the Reliability Analysis of the engine system examined by modeling are performed to determine the critical system using the Analytical Approach Reliability Block Diagram, at 78 hours each system has a Reliability value of 10%, 23% and 40%. The average value of Maintainability of each system at t = 6, t = 6 and t = 2 is 90%, 96% and 99%. The Inherent Availability value of each system is 98.530%, 98.135% and 99.592% and the Operational Availability value of each system is 99.650%, 99.845% and 100%. Based on the evaluation that has been done by using the world class maintenance Key Performance Indicator, indicators from the leading and lagging availability have reached the given indicator target. The result of the Cost of Unreliability calculation shows that the cost of each system caused by unreliability is Rp5.045.527.928, Rp5.128.013.994 and Rp3.693.237.580 and based on active repair time Rp8.364.232.761, Rp10.404.655.551 and Rp6.017.568.031 based on downtime

Keywords : Reliability, Availability & Maintainability, Cost of Unreliability, Mean Time To Repair, Mean Time To System Failure, Mean Downtime, World Class Key Performance Indicator, Reliability Block Diagram.