

ABSTRACT

Ceramic industry has been one of the most reliable industry sectors in Indonesia for the last few years through its positive performance sales. PT XYZ is one of ceramic manufactures in Indonesia which focuses on ceramic tiles. One of the core machine for manufacturing process is Press Hydraulic Machine where the machine will press mixture of ceramic powders into shape therefore, in order to keep ceramic industries in the heart of its customers, the company is required to preserve the reliability of this machine in use. After performing Risk Matrix assessment, it was found critical subsystem that needs a lot more attention are Filler Box Lifting Control, Hydraulic Ejector, Accumulator Plat, Logic Element Plat and Multplier thus this study will focus on determining the optimal maintenance task and maintenance time interval using Reliability Centered Maintenance (RCM) as well as the cost of unreliability (COUR) to estimate the financial loss the company will suffer if the machine falls apart. From RCM result, it was obtained the optimal preventive maintenance tasks consists of 10 scheduled on-condition tasks, one scheduled restoration task and one scheduled discard task with total maintenance cost Rp 2,084,969,456. For COUR result, the amount of cost of unreliability is Rp 2,230,584,312.

Key words: Reliability Centered Maintenance (RCM), Cost of Unreliability (COUR), Preventive Maintenance, Corrective, Downtime.