

ABSTRACT

PT XYZ is a company engaged in the production of ceramics with a variety of sizes and designs. The production process is assisted by five machines namely Press Hydraulic, Sorting Spiral, Ball Glaze Mill, Ball Mill Body, and Kiln. Based on the total downtime of each machine, the Press Hydraulic machine has the highest total downtime time. This gives a different impact on the production process, from the smallest impact to the greatest impact of stopping the machine, so it requires proper maintenance and spare parts are always available when damage occurs. Therefore, this research uses Reliability Centered Spares (RCS) method to determine spare part requirement on critical component and determination of inventory policy on a critical component. Selection of critical components using RCS Worksheet method and selected five critical components of Logic Element, Pocket, Scraper, Crosshead, and Shock Absorber. Based on the result of data processing using RCS method, the total requirement of Logic Element component for one year ahead are 30 components, Pocket 21 component, Scraper 19 components, Crosshead 14 components and Shock Absorber 15 components. The result of the inventory policy obtained the total cost to be spent by the company is Rp 198.601.055,00.

Keyword: Maintenance, Reliability Centered Spares, Poisson Process, Inventory Policy.