ABSTRACT

PT XYZ *is a company that produces secondary battery or accumulator. In the process production of battery,* PT XYZ *has many machines. The machines are often damaged resulting downtime during the production process. Machines that have a high frequency of damage that is Dumping machine, which resulted in losses for the company. The cause of the high frequency of damage to the machine is often the occurrence of component damage. In determining the right spare part then needed calculations in accordance with the needs, Reliability Centered Spares (*RCS*) is one method that can perform calculations of spare part requirements. The critical components of the dumping machine are the Conveyor Chain, the* E3Z-T61-L *Omron Sensor, the* E3Z-T61-D *Omron Sensor, and the Conveyor Gear obtained based on the Risk Matrix analysis. In the calculation of component requirement using Poisson Process calculation is obtained the number of spare parts requirement for* 12 *months period is* 4 *components of Conveyor Chain,* 12 *components of Omron* E3Z-T61-L *Sensor,* 12 *components of Omron* E3Z-T61-D *Sensor and* 6 *of Conveyor Gear components. Losses incurred by the critical component of the dumping machine are calculated using the Cost of Unreliability method, the company's losses from* 2016 *to* 2017 *amounting to* Rp 3,028,165.22.

Keywords: *Reliability Centered Spares, Poisson Process, Risk Matrix, Cost of Unreliability, Dumping machine, spare part*