ABSTRACT

PT. Indonesia Power UBP Priok is one of the big generating electricity in PT. Indonesia Power. The majority electricity in North Jakarta is produced by PT. Indonesia Power UBP Priok. Therefore, PT. Indonesia Power UBP Priok is important from Jakarta. There is a chemistry division which handles chemicals in distillation process. Chemistry division has units which under its responsibility. One of unit is "Kimia Labor Unit" which handles chemicals in laboratory. Actual condition of order to supplier in this company is using manual method. The effect of using manual method is big in inventory cost. The company will plan optimal inventory therefore reduce the inventory cost.

The company buys the chemicals when they are empty in warehouse. There is one supplier which supplies many items of chemicals. Because of that, the company hopes optimal inventory planning can ensure order time, order quantity, safety stock and minimal inventory cost.

Inventory planning of chemicals is using EOQ Joint Replenishment method. Based on the calculation of that method, the order time is 1/5 month. The order quantity is variative depend on demand in each month. The safety stocks in warehouse are about 0-0,113 liter and 0-41,156 gram. The reduction of cost inventory is Rp Rp 700.399,05. This research may help the company to decide the planning inventory in Kimia Labor unit.

Keywords: EOQ Joint Replenishment, Order Time, Order Quantity, Safety Stock, and Reorder Point.