CONTINUOUS REVIEW APPROACH TO CONTROL 
MATERIALS INVENTORY: A CASE STUDY 

Name : Dhini Syalina  
NRP : 9111.202.703  
Counselor : Prof. Ir. I Nyoman Pujawan, M.Eng.,Ph.D. 

ABSTRACT

In the maintenance system, the availability of materials determined the service level. For PT ABC, Duri, Riau it was also affected their ability to supply electricity and steam for bigger customer. Unfortunately this company held so many slow moving, dead stock and surplus items in the inventory and had the low Turnover Ratio (TOR). Current warehouse system was required to be reviewed. Therefore, this research aimed to do that by minimized the materials excess in inventory thus optimize inventory value, and achieved the targeted service level. This study employed a method called continuous review (s, S) inventory control model, where s was the reorder point and S was the maximum stock. Materials were classified based on their characteristic of demand. Simulation was performed by increasing and decreasing the Z value. The simulation result should comply with the service level target which optimizes the total cost.

The simulation result indicated that the value of (s,S) obtained from the formula did not always provided the best service level and total cost. With the increased or decreased in the value of Z value inputted within a certain interval, the best combination of s and S were improved service levels and / or total cost. In summary, from 5 (five) materials analyzed, the average variance between s, S formula and the s, S simulation were able to reduced materials total cost by 3.6%. The materials service level has been reduced slightly by 0.04% but still exceed the company service level of 95%.

Keywords: material, inventory control, continuous review