

## **ABSTRACT**

*Inventory control policy in a company becomes an important thing. PT. EFG is a company engaged in aircraft engine repair services. In the process of engine repair operation, PT. EFG often experience delays of PT. EFG must pay a fine. Cause of delay that is not available part replacement so have to wait for ordering. To be able the availability of parts, PT. The EFG must have a policy of determining the number of parts order for CT7 engine parts inventory so as to reduce the total cost and increase the service level.*

*Based on the results of distribution test it is known that demand for repair 2015-2016 has poisson distribution. Then the method used in determining inventory control policy is using power approximation approach.*

*The result of inventory policy using power approximation approach for each part has a mean of 1 unit with 1 month interval review. The order is made if the part that has reached the point of reorder point and the order amount does not exceed the maximum inventory level.*

*By using approach of power approximation to do stock PT. EFG can increase service level by 15% with total inventory cost savings of \$ 50,219.17 from \$ 121,773.67.*

*Keyword : Inventory Control Policy, Poisson, Power Aproximation, Service Level*