ABSTRACT

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ANALYSIS OF CEMENT RAW MATERIAL INVENTORY CONTROL PORTLAND COMPOSITE CEMENT (PCC) AT PT SOLUSI BANGUN INDONESIA TBK USING ECONOMIC METHODORDER QUANTITY (EOQ)

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Key Words: Economic Order Quantity, Material Inventory Control Raw, PCC Cement.

(xiv+ 44+ Attachments)

Portland Composite Cement (PCC) is a powder cement for hydraulic adhesives produced from grinding. The raw materials used to make PCC cement are limestone, clay, iron sand, silica sand, and gypsum. The problem faced by the company is in ordering more raw materials than the raw materials used, so there are leftover raw materials. This study uses the Economic Order Quantity (EOQ) Method to control the amount of raw material inventory.The EOQ method is one of the calculation methods to determine the optimal order quantity. The purpose of the research is to determine the optimal amount of raw material orders using EOQ, determine the total cost of economical raw material inventory, and determine the most optimal amount of safety stock and reorder point.

Economical and optimal raw material ordering based on the Economic Order Quantity method consists of 4 raw materials, namely for clay raw materials as much as 9607.52 tons, iron sand raw materials as much as 2,981.43 tons, silica sand raw materials as much as 10,935.48 tons, gypsum raw materials as much as 10,098.43 tons for one order. The total inventory cost required for clay raw materials is Rp. 6,533,112,727.33, iron sand raw materials are Rp. 1,639,788,401, silica sand raw materials amounting to Rp. 5,686,449,594, gypsum raw materials amounting to Rp. 6,614,474,320.5. The safety stock required for clay raw materials is 13,076.4 tons, iron sand raw materials are 3,138.8 tons, silica sand raw materials are 4,191.25 tons, and gypsum raw materials are 18,455.51 tons. The reorder point for clay raw materials is 14,135.74 tons, iron sand raw materials are 3,201 tons, silica sand raw materials are 4,926.86 tons, and gypsum raw materials are 19,652.69 tons.

BIBLIOGRAPHY (2005-2024)