

OPTIMIZATION OF WORK-IN-PROCESS INVENTORY THROUGH FILLING ACTIVITY IN CHEVRON PACIFIC INDONESIA COMPANY

By
Windi Winasti

Submitted to International Program, Departement of Industrial Engineering, Faculty of Industrial Technology, on January , 2008 in Partial Fulfillment of the Requirement for the degree of Sarjana Teknik Industri at Universitas Islam Indonesia

ABSTRACT

Chevron Pacific Indonesia Company (CPI) is one example of industry that implies Vendor Managed Inventory (VMI) technique where the production systems controlling the inventory. In this company, Filling and Loading appears as an operational activity toward Work-in-Process inventory system. Filling deposit the crude oil which came from the oil production field into the storage tank, until it is being shipped through the loading. The loading will follow the 5 days shipping schedule that already being determined before by in charged parties. This research presents an algorithm model under VMI concept to find the best filling strategy to avoid shipment delay. The current condition in the company shows that delay and inconsistency of shipping schedule occurs in some conditions, due to insufficient amount in their storage tank. By using the algorithm model proposed by this research, it will provide the best filling strategy which defines when, where and how much to locate the crude properly so no more shipment delays.

KEYWORDS: Vendor Managed Inventory, Filling and loading activity, Algorithm

Thesis Supervisor: Ir. R. Chairul Saleh, M.Sc., Ph.D