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THITINUN CHAIPATTANAKARN : DESIGN OF A MAINTENANCE PLANNING SYSTEM : A CASE OF CORRUGATED-PAPERBOARD BOX MANUFACTURING FACTORY. THESIS ADVISOR : ASSO. PROF. KITTI INTARANONT,Ph.D. THESIS CO-ADVISOR : MANGKORN DHANASARNSILP 418pp. ISBN 974-587-292-3

The purpose of this study is to design a maintenance planning system for corrugated-paperboard box manufacturing factory in order to reduce machine downtime which is the main problem of production delays in this factory. The maintenance system of this factory was found to be an unplanned one, using a so-called "Breakdown Maintenance". The maintenance cooperation was not efficient. Normally the maintenance activity was carried out on the basis the employees' past experiences, no follow-up procedure, no records of the machine maintenance and no forward planning for the provision of spare parts.

This study proposed a new design of a maintenance planning system by setting up the organization of maintenance department, job description of production department, preventive maintenance (PM) system, maintenance information system and preparing necessary spare parts list.

By comparing past records with those of the improved maintenance system, it was found that the monthly average downtimes of the corrugator and the 3 colours flexo printer slotter die-cutter were reduced by 347 and 540 minutes. The machine downtime indices of both machines were reduced by 2.5 % and 2.3 % and the chance failure ratios were reduced by 0.10 and 0.34 time per 8 hours, respectively.