



**COLLEGE OF ENGINEERING, DESIGN, ART AND TECHNOLOGY  
SCHOOL OF ENGINEERING DEPARTMENT OF  
MECHANICAL ENGINEERING**

**IMPROVEMENT OF THE MAINTENANCE SYSTEM FOR  
UGANDA CLAYS LTD KAMONKOLI**

**BY**

**MUSAAZI ANDREW**

**BMME, CTTE (KYU), HDM, ODM (UPK), DIP (UIC)**

**A DISSERTATION SUBMITTED TO THE GRADUATE SCHOOL  
IN PARTIAL FULFILLMENT FOR THE AWARD OF  
THE MASTER OF ENGINEERING DEGREE OF  
MAKERERE UNIVERSITY**

**NOVEMBER 2010**

## ABSTRACT

This study investigated the maintenance practices at Uganda Clays Ltd Kamonkoli with an objective of improving the maintenance system. The study was prompted by the unnecessary stoppages of the automated system that occurred at a rate of nine minutes on average as different machines malfunctioned during the continuous production processes.

The factory manufactured baked clay products that ranged from roofing and floor tiles, walling and partitioning blocks, suspended floor units to bricks and decorative grilles.

The researcher investigated the problem using the descriptive method which involved collecting data using questionnaires, interviews, and observations. The Managers, maintenance and production staff were the population as well as the sample because the staff were not many in these departments.

The findings showed that UCL Kamonkoli had a proposed organization structure, in which the Maintenance Engineer reported to the Production Manager. Some maintenance staff had titles not indicated in the proposed structure. The sections of the maintenance department were not indicated in the proposed structure. The maintenance documents used included the weekend work and maintenance checklist, note book, and a daily maintenance report book. The essential maintenance documents not used included the inventory, facility register, equipment maintenance schedule, job specification, work order, maintenance programme, job report, history record card, lubrication register, and lubrication card. The store documents used included the store issue voucher, store entry voucher, stock reading card, fuel issue voucher, and the purchase requisition form. The essential store documents not used included: spare parts list, bin card, inventory check card, and designation card. The plant maintenance system was not well-defined and without a maintenance policy.

The recommendations included the proposal to adopt a preventive maintenance policy, procedures to implement a PM scheme, developing the maintenance documents and the control system. The process of improving the maintenance system be done in two different stages:

- Stage.1.        Developing a manual maintenance system
- Stage.2.        Computerizing the manual maintenance system in the subsequent studies in future