

DEVELOPMENT OF MAINTENANCE MANAGEMENT SYSTEM FOR REDUCING ELECTRICAL POWER CONSUMPTION AT TANZANIA RAILWAYS CORPORATION: A Case of Tanzania Railways Corporation Headquarters.

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ABSTRACT

Tanzania Railways Corporations (TRC) is a product of two companies, namely Tanzania Railways Limited (TRL) and Reli Asset Holdings Corporations (RAHCO) which was merged by the Government of the United Republic of Tanzania in 2018. Currently, the most used type of maintenance in TRC's Diesel Depots is corrective maintenance which causes unpredicted frequent equipment failures. Frequent equipment breakdown causes the breakdown causes the company services to decline which results in declining of revenue and employment. The methods used for data collection were observation, document review, questionnaire, and interview. Data were collected with a total 42 respondents and then was analyzed by using statistical package for social sciences. The most significant factors contributing to improper maintenance were used to develop the equipment reliability modal. The research findings reveal that the reliability of locomotive Engine and Carriage Wagon performed under corrective maintenance were 72.37% and 69.16 respectively per year. In this study, the factors which contribute to increase of equipment breakdown in the TRC HQ were identified. The factors which are most significant affecting equipment reliability and thus lead to increase of electrical power consumption were spare part supply and shortage(Inventory),most use of corrective maintenance, age of equipment and low management commitment in maintenance as a major strategy to the maintenance of equipment. Also, it is recommended that the company may adopt the Maintenance Management System embedded with Energy Management strategies so as to increase equipment reliability and hence reduce the electrical power consumption at TRC HQ.