

Implementing a Strategy of Reliability Centred Maintenance (RCM) in the Libyan Cement Industry

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Abstract : The substantial development of the construction industry has forced the cement industry, its major support, to focus on achieving maximum productivity to meet the growing demand for this material. Statistics indicate that the demand for cement rose from 1.6 billion metric tons (bmt) in 2000 to 4bmt in 2013. This means that the reliability of a production system needs to be at the highest level that can be achieved by good maintenance. This paper studies the extent to which the implementation of RCM is needed as a strategy for increasing the reliability of the production systems component can be increased, thus ensuring continuous productivity. In a case study of four Libyan cement factories, 80 employees were surveyed and 12 top and middle managers interviewed. It is evident that these factories usually breakdown more often than once per month which has led to a decline in productivity, they cannot produce more than 50% of their designed capacity. This has resulted from the poor reliability of their production systems as a result of poor or insufficient maintenance. It has been found that most of the factories' employees misunderstand maintenance and its importance. The main cause of this problem is the lack of qualified and trained staff, but in addition, it has been found that most employees are not found to be motivated as a result of a lack of management support and interest. In response to these findings, it has been suggested that the RCM strategy should be implemented in the four factories. The paper shows the importance of considering the development of maintenance strategies through the implementation of RCM in these factories. The purpose of it would be to overcome the problems that could reduce the level of reliability of the production systems. This study could be a useful source of information for academic researchers and the industrial organisations which are still experiencing problems in maintenance practices.

Keywords : Libyan cement industry, reliability centred maintenance, maintenance, production, reliability

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