

Title :

Development RCM strategy & Implementation in cold roll mill in mobarakeh steel company

Abstract :

The growth of repair and maintenance concepts and techniques has been so significant that, nowadays, one of the most important challenges of repair and maintenance experts is decision-making on the necessity and efficiency of each technique for the organization rather than the mere learning of them. Awareness about this issue results in a pervasive process of decision-making known as reliability-centered maintenance (RCM). RCM is a process to determine what must be done to ensure that physical assets continue to do what their users require in their present operating context. The main goal of the present study is the development of a model of RCM for the shear lines equipment in the cold roll milling at Isfahan's Mobarakeh steel Company. Besides defining RCM methodology steps by the analysis of the function and functional failures and its consequences, the developed model leads repair and maintenance experts to effective repair and maintenance workings and eventually to the promotion of access and reliability of the equipment. The present study also aims at applying the developed model on the shear lines equipment in the cold roll milling at Isfahan's Mobarakeh steel Company. Taking the large quantity of shear lines equipment into account, the equipment was classified and prioritized based on criticality assessment criteria out of which the electrostatic oiling machine designed for the full-width overall spread of the protective oil over a strip was identified as the most critical equipment. To conduct the study, a team of production and maintenance personnel familiar enough with the performance of this equipment was formed first. Then, the information worksheet was filled out, the proper strategy for maintenance activities was specified based on the decision tree presented in the model, and the decision worksheet was completed. Furthermore, the oiling machine maintenance standards including explanation and frequency of them were rechecked. Greater safety, less production and maintenance failures, improved quality of products, greater motivation, better team work, and improved reliability of critical equipment are of the benefits yielded by this model applied.

Keywords :

: Reliability Centered Maintenance RCM □ Development □ Electrostatic Oiling Machine □ Mobarakeh steel company