

ABSTRACT

Reliability Centered Maintenance (RCM) is a process that defines procedures or steps to be taken in order to keep physical assets function well. The main objective of RCM is to maintain system functionality by identifying failure modes and prioritizing the importance of failure modes and then selecting effective and workable preventive maintenance that technically feasible. When a system shutdown is needed due to a damaged component, the availability of spare part is critical in order to minimize the downtime of the normal operation. Reliability Centered Spares (RCS) is an approach to determine the level of spare parts inventory based on trough-life costing, equipment requirement and maintenance operations in supporting inventory.

The process of doing RCM and RCS is rather lengthy and tedious if done with manual calculations, especially if the asset to be maintained is in large quantities. One popular approach is the maintenance analyst using a variety of existing software to help the analysis. This work try to provide a single software with a more integrated features to analyze RCM and RCS and help the analyst performing their duties efficiently. Using this application software the analyst performs more effectively and all the result of the RCM and RCS is available digitally.

Keyword: Software, RCM, RCS, Spare Part Management