

Maintenance Wrench Time Improvement Project

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Abstract : As part of the organizational needs toward successful maintaining activities, a proper management system need to be put in place, ensuring the effectiveness of maintenance activities. The management system shall clearly describes the process of identifying, prioritizing, planning, scheduling, execution, and providing valuable feedback for all maintenance activities. Completion and accuracy of the system with proper implementation shall provide the organization with a strong platform for effective maintenance activities that are resulted in efficient outcomes toward business success. The purpose of this research was to introduce a practical tool for measuring the maintenance efficiency level within Saudi organizations. A comprehensive study was launched across many maintenance professionals throughout Saudi leading organizations. The study covered five main categories: work process, identification, planning and scheduling, execution, and performance monitoring. Each category was evaluated across many dimensions to determine its current effectiveness through a five-level scale from 'process is not there' to 'mature implementation'. Wide participation was received, responses were analyzed, and the study was concluded by highlighting major gaps and improvement opportunities within Saudi organizations. One effective implementation of the efficiency enhancement efforts was deployed in Saudi Kayan (one of Sabic affiliates). Below details describes the project outcomes: SK overall maintenance wrench time was measured at 20% (on average) from the total daily working time. The assessment indicates the appearance of several organizational gaps, such as a high amount of reactive work, poor coordination and teamwork, Unclear roles and responsibilities, as well as underutilization of resources. Multidiscipline team was assigned to design and implement an appropriate work process that is capable to govern the execution process, improve the maintenance workforce efficiency, and maximize wrench time (targeting > 50%). The enhanced work process was introduced through brainstorming and wide benchmarking, incorporated with a proper change management plan and leadership sponsorship. The project was completed in 2018. Achieved Results: SK WT was improved to 50%, which resulted in 1) reducing the Average Notification completion time. 2) reducing maintenance expenses on OT and manpower support (3.6 MSAR Actual Saving from Budget within 6 months).

Keywords : efficiency, enhancement, maintenance, work force, wrench time

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