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Using Lean Practices to Overcome Challenges with Improving Warehouse Operations

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This improvement project was conducted in a warehouse that provides repair services and storage for the equipment, supplies/consumables, and repair parts needed to perform technical cleaning and hygiene services for clients such as in schools, hospitals, airports, etc. While initially organizing materials one section/area at a time using 5S (sort, set-in-order, shine, standardize, and sustain), challenges encountered included space limitations with the existing layout, co-location of repair and storage operations, inability to temporarily shut-down operations to organize, and resistance to disposing of unneeded items. To resolve the space/layout issues, management invested in renovating the warehouse. While cleaning prior to renovations, many sorting activities took place. Post-renovations, to organize and streamline operations (set-in-order and shine), a new space utilization plan was developed and implemented that organized items across the warehouse into separate storage zones, designated space only for performing repairs, and stored all repair parts together in the same zone. To standardize, visual controls were implemented, including floor markings and storage location labels, as well as a shadow peg board and a toolbox with foam cut-outs in the repair work area. In addition, standard operating procedures were developed. To sustain, a bi-weekly audit procedure was developed, and a communication board was installed where, among other things, audit feedback would be posted. Finally, inventory reorder points were established, and a Kanban system was implemented for material replenishment.

Keywords

Lean, 5S, warehouse operations

Classification

Mainly application

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