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Theory of Constraints: Approach for Performance Enhancement and Boosting Overhaul Activities

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Abstract : Synchronization is defined as 'the sequencing and re-sequencing of all relative and absolute activities in time and space and continuous alignment of those actions with purposeful objective in a complex and dynamic atmosphere. In a complex and dynamic production / maintenance setup, no single group can work in isolation for long. In addition, many activities in projects take place simultaneously at the same time. Work of every section / group is interwoven with work of others. The various activities / interactions which take place in production / overhaul workshops are interlinked because of physical requirements (information, material, workforces, equipment, and space) and dependencies. The activity sequencing is determined by physical dependencies of various department / sections / units (e.g., inventory availability must be ensured before stripping and disassembling of equipment), whereas resource dependencies do not. Theory of constraint facilitates identification, analyses and exploitation of the constraint in methodical manner. These constraints (equipment, manpower, policies etc.) prevent the department / sections / units from getting optimum exploitation of available resources. The significance of theory of constraints for achieving synchronization at overhaul workshop is illustrated in this paper.

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