

## **ABSTRACT**

*PT Dwi Indah is a company which expert in manufacturing and exporting LLDPE cast stretch film and core paper. This company is one of the the biggest producer of LLDPE cast stretch film in Asia. PT Dwi Indah has two division, core paper division which produce core paper and stretch film division which produce LLDPE cast stretch film with various size. Various products that has been produced affecting the flow material and travelled distance of material handling equipment which make it doesn't efficient because of backtracking that occurred could make travelled distance of material handling equipment become further. Moreover, unit load which is not optimal could cause high handling frequency. Those two problems could affecting the cost of which PT Dwi Indah spends.*

*The approach that used for solving the problems in this research is General Analysis Procedure. General Analysis Procedure is a systematic approach which used for solving the problems of material handling that could help reorder complex material handling system and guiding to right proposal.*

*This redesign of material handling system generate handling distance and MHE solution that replacing the function of forklift truck and cargo lift with reach truck and hand pallet jack with electric pallet truck so the cost of MHE decreased to 29,49%. Unit load of reach truck increasing to 50%, 11% - 19% with hand pallet jack, and 50% for forklift truck B.*

**Keywords:** *Material handling System, General Analysis Procedure, Backtracking, Unit Load, MHE*