1. Work Design & Measurement

WORKPLACE IMPROVEMENT IN PLASTIC BASED PRODUCT COMPANY USING WISE GUIDELINE

A THESIS

Submitted in Partial Fulfilment of the Requirements for the Bachelor Degree of Engineering in Industrial Engineering

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IDENTIFICATION PAGE

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DECLARATION OF ORIGINALITY

I certify that the research entitled "Workplace Improvement in PT. MAPI using Work Improvement in Small Enterprises (WISE) " in this thesis has not already been submitted for any other degree.

I certify that to the best of my knowledge and belief, this thesis which I wrote does not contain the works of parts of the works of other people, except those cited in the quotations and bibliography, as a scientific paper should.

In addition, I certify that I understand and abide the rule stated by the Ministry of Education and Culture of The Republic of Indonesia, subject to the provisions of *Peraturan Menteri Pendidikan Nasional Republik Indonesia Nomor 17 Tahun 2010 tentang Pencegahan dan Penanggulangan Plagiat di Perguruan Tinggi*.

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PREFACE

First of all, very deepest gratitude goes to God for the blessing for all this time during the progress on finish my thesis and also a big thank from me to Him for always making stay strong and give patient every day.

In the process of finishing this thesis, I realizes that without guidance, assistance and prayers from various parties this thesis cannot be completed on time, therefore, I dedicate my greatest Thank to:

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It is important to realize that with all the limitations, this thesis report is far from perfect. I would like to receive some suggestion from other parties for the perfection of this thesis. Finally, hopefully this thesis can be useful for all interested parties.

Yogyakarta, October 22th, 2019

Paulus Damasus Dwi Putranto

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Workplace is an important thing to consider especially in the industrial world. When the workplace is good, workers can work effectively and efficiently. Otherwise, if the workplace is improper, it will disrupt the workers to work effectively and efficiently.

The current workplace condition in PT. MAPI is improper. This improper condition happens because there were problems in the workplace. The problems were the limitation of work area in some departments, the limitation of shelves in the departments, lack of material handling tools and no proper conveniently home place for tools, lack of first aid equipment's, no proper guards in some machines and shelves, unclear pathway mark, unclear position shelves and flow of work, unworthy resting corners, unworthy washing facilities and toilets, no labels for the material handling tools, and unclear emergency switch controls.

The aim of this study is to proposed improvements of the workplace in PT. Mega Andalan Plastik Industri (MAPI). The improvements will be proposed by using the Work Improvements in Small Enterprises (WISE) guideline. WISE guideline was used to identify the non-conformity condition of the workplace. Cause analysis was done using 5 why method to determine the root causes of the non-conformity condition. Improvements was proposed for the root causes identified.

The workplace improvements proposed were PT. Mega Andalan Plastik Industri (MAPI) have to expand the size of work area of some departments, rearrange the layout of certain departments, provide more facilities such as handling tools (home place for the tools, pallets, container boxes, shelves), provide more cleaning tools, provide more first aid equipment's, make a new pathway mark, make a labels for each handling tools, do some maintenance for the proper guards and the unclear emergency switch controls.

Keyword: Workplace improvements, Work Improvement in Small Improvements (WISE) guideline, Cause Analysis, 5 Whys