

Chapter 1

INTRODUCTION

1.1. Problem Background

Stability in process to create quality control of product to reach the product specification or nonconformity prevention has been influenced by man and machine aspects. Both aspects are important on nonconformity prevention and quality control reach on process. On the other hand those aspects have their own complex aspect on these problems. Based on the problem, problem analysis and problem solving based on quality control analysis aspect being need to develop.

Based on the need and reason, nonconformity analysis on study case of lube oil product component been develop. On this case study, quality control aspect analysis on nonconformity and human factor need to develop. Quality control aspect will bring the assessment of nonconformity because problem identification, Seven-Step Method is a tool for increasing quality that focuses in the process.

PT. PERTAMINA (PERSERO) Lubricating Unit of Cilacap is a company that moves in the oil refinery from upstream until downstream. To be survive in compete for satisfying consumer, PT. PERTAMINA (PERSERO) Lubricating Unit of Cilacap feel to improving their quality in all aspect especially in process activity. The company trying to reduce the defect

product because with reducing the defect will minimize the production cost and increase benefit also.

Quality methods are suitable to apply in PT. PERTAMINA (PERSERO) Lubricating Unit of Cilacap because the company already considers the production quality aspect. This can be seen on the products, PT. PERTAMINA (PERSERO) Lubricating Unit of Cilacap already certificated by ISO 9001 : 2000 (Quality Management), ISO 14001 (Environment Management), and ISO 17025 : 2000 for laboratory.

1.2. Problem Statement

Based on the consideration above, the problem statement on this research is how to increase the quality of the product by reducing nonconformities percentage of the product.

1.3. Objectives

The objectives from this research are:

1. Identify the most significant defect product of lubricant.
2. Find the source of the defect.
3. Propose improvement plan and implement.

1.4. Scope of Research

The boundary of the observation needed to focus on the main problem and to prevent the wrong interpretation of the conclusion. The problem limitation is set as follow:

1. The point of research is an effort to reduce nonconformities of defect product.

2. The method that used is Seven-Step Method.
3. The observation is in Lithos Department.
4. Data that used is data of defect product in production and the kind of the data is attribute data taken from December, 2008 until May, 2009.
5. The implementation practice on August, 2009.
6. The product observed is Mesran Super SAE 20W-50.
7. The product is chosen because the large production order is Mesran Super SAE 20W-50 about 40% compared to all products.

1.5. Research Methodology

The research methodology step that used in this research below:

1.5.1. Object of the Research

Object of this research is lubricant product on filling process at PT. PERTAMINA (PERSERO) Lubricating Unit of Cilacap.

1.5.2. Research Preparation

On this step it will be defining problem formulation, purpose, and aim of research and problem boundaries.

1.5.3. Collect the Data

Data collection will be concerned out through:

1. Interviewing Method

This method used to get the information about the company that is done by generate question to the employee, staff, or operator related the topics.

2. Observation Method

This method used and been done by observation at the object to know and get the actually data in the range.

3. Literature Study

Literature study is done by searching from book reference and also journal of theory that support.

1.5.4. Data Analysis

In this data processing phase divided into seven steps, the phase below:

1. Define the Problem.

These steps are consisting of define the problem, document that is important, and determine what data you will use.

2. Study the Current Situation.

In this steps consisting of collect the baseline data and plot them, *run chart* is build in this step, develop flowcharts, provide any helpful sketches, identify any variables, design data collection instrument, collect the data and summarize, and determine what additional information.

3. Analyze the Potential Cause.

In this steps consisting of determine the potential causes, determine whether more data are needed, and verify the causes through observation.

4. Implement the Solution.

These steps are consisting of develop a list of solutions, decide which solutions should be tried,

determine how the preferred solution will be implemented, and implement the preferred solution.

5. Check the Results.

In this steps consisting of determine whether the action is effective and describe any variation from the plan.

6. Standardize the Improvement.

These steps are consisting of institutionalize the improvement and determine whether the improvement should be applied.

7. Establish Future Plans.

In this steps consisting of determine your plans for the future and summarize what you learned about the project.

1.6. Research Methodology Flow Chart

Whole research methodology above can figure in the flow diagram of process, the figure below:

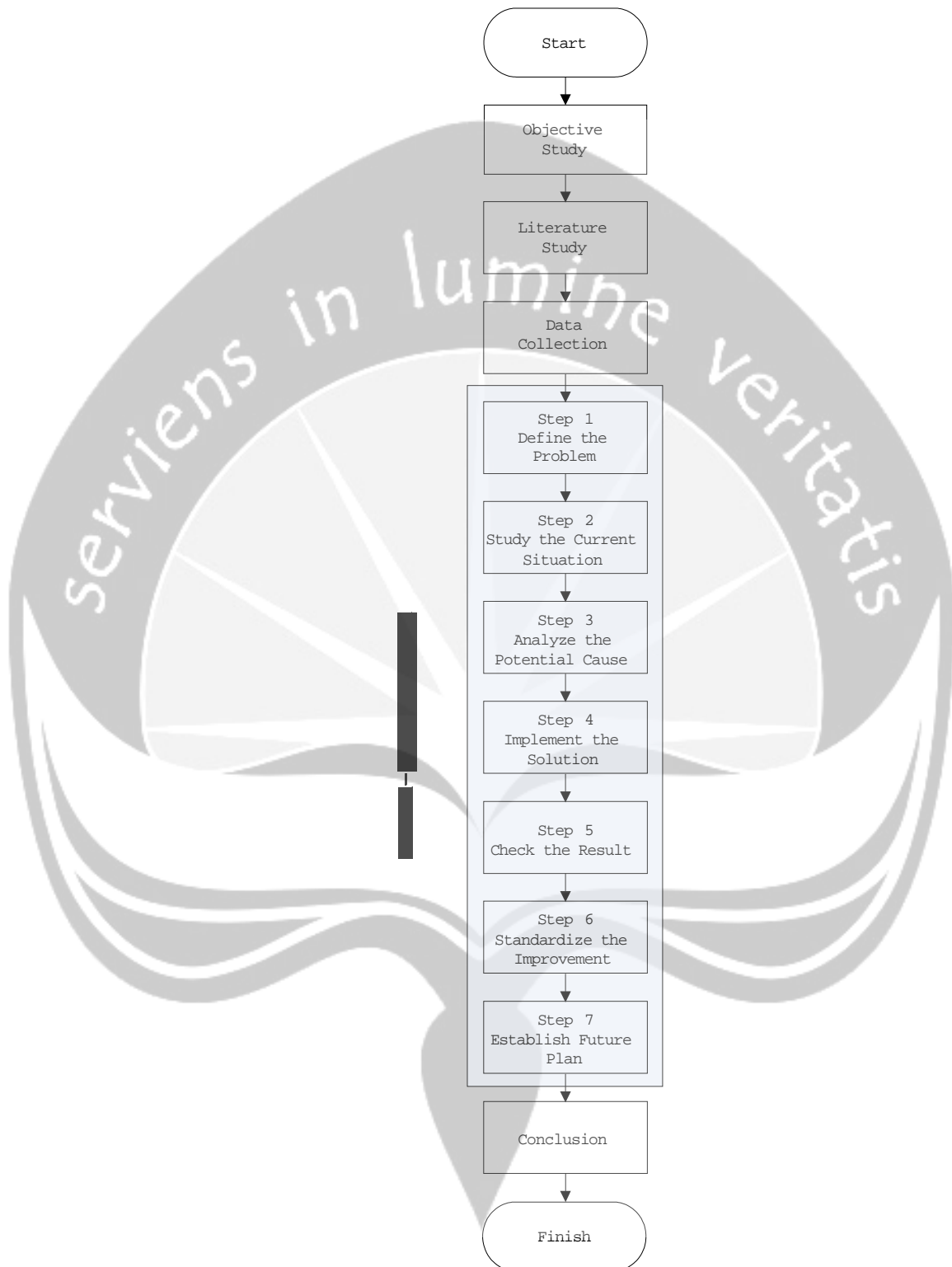


Figure 1.1. Flow Process Diagram

1.7. Thesis Outlines

The thesis outlines used in the research report writing consist of:

CHAPTER 1. INTRODUCTION

Introductions are consisting of problem background, problem definition, purpose of the research, limitation of the research, research methodology, and thesis outlines.

CHAPTER 2. LITERATURE REVIEW

This chapter is consisting of the previous research that mentioned on each and related to this research.

CHAPTER 3. BASIC OF THEORY

This chapter is consisting of theoretical based literature that provides basic of research problem solving.

CHAPTER 4. COMPANY AND DATA PROFILE

This chapter are consisting of Sort Company that research, took place, and description.

CHAPTER 5. DATA ANALYSIS AND DISCUSSION

This chapter is consist description of data analysis and research result.

CHAPTER 6. CONCLUSSION AND SUGGESTION

This chapter is consist conclusion of discussion and suggestion of problems that has been identified.