

## **IMPLEMENTATION OF OCCUPATIONAL HEALTH AND SAFETY (K3) AT PT ALKAN CHEMICAL INDONESIA**

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### **ABSTRACT**

PT. Alkan Chemical Indonesia operates in the chemical sector, having the role of making and selling chemicals for various industries such as the metal plating or electroplating services industry, the metal painting industry, the coating industry, and others. It was found that problems were closely related to occupational health and safety issues, PT Alkan Chemical Indonesia had problems because a work accident occurred which befell one of its employees in 2022. The implementation of occupational health and safety at the company was actually not yet fully running well and smoothly. . Several things that make the implementation of occupational health and safety not run smoothly include those arising from the employees themselves, namely there are several employees who still do not implement occupational health and safety implementation, then do not use personal protective equipment properly, and lack of employee understanding of safety and occupational health so that some dangers or accidents still arise while working. Through occupational health and safety programs, it is hoped that employees can create a safe, peaceful and healthy work situation. This research method is descriptive qualitative research. This research uses data collection techniques, namely observation, interviews and documentation. The results of this research still found that several company employees had not implemented occupational health and safety properly due to a lack of understanding regarding the implementation of occupational health and safety. The occupational health and safety equipment here had been provided quite well according to needs, and it was found various obstacles and obstacles that have been resolved.

Keywords: Occupational Health, Occupational Safety, Chemicals

## INTRODUCTION

### a. Background

Human Resources are very important for an organization. No matter how good an organization is, if it does not have the role of human resources, it cannot run well, because human resources have an important role in the life of the organization.

The success of an organization, whether large or small, is not determined by the natural resources available, but is also determined by the quality of human resources whose role is to plan, implement and control the organization concerned. The success of an organization when achieving a goal now and in the future, especially in the digital economy era which is currently developing rapidly, is human resource management. Human resources are capital and wealth that can provide change in the future. According to Rulianti (2020), human resources are one of the main drivers for every company's operations.

The purpose of understanding and studying human resource management is the knowledge needed to have analytical skills in dealing with management problems, especially in the organizational field. Human resources in a company have an important role in determining whether or not a company develops, meaning that when a company has high quality human resources then the company can develop and be able to compete with other companies and vice versa, when a company does not or lacks Quality human resources make it difficult for the company to develop and compete with other companies. Safety includes protecting employees from injuries caused by work-related accidents. The scope of the safety definition includes factors related to injury, repetitive stress, and violence at work and at home. Health refers to freedom from physical and emotional illness. Problems in this area will greatly affect the productivity and quality of employee work life (Koyari 2021).

Implementation of occupational health and safety is very important. Implementation can be said to be the process of applying a concept in order to achieve the set goals. The implementation of good occupational health and safety is very necessary in the industrial world and even in the world of education in order to produce mid-level professionals and create quality human resources so they can compete in the industrial world. The implementation of occupational health and safety includes several aspects and one of them is safety protection. This protection means that it is ensured that workers safely carry out their daily work to increase production and productivity. Workers need to receive protection from various problems around them and themselves that may occur and affect or interfere with them and the implementation of their work. The implementation of occupational safety and health is expected by companies to ensure consistency and effectiveness in minimizing, reducing and preventing the risk of accidents and work-related diseases. This is done in order to be able to maintain employee work productivity by involving elements of the workforce, company management, conditions and work environment that are integrated to

create a safe and productive work atmosphere. In line with this, the results of research regarding the implementation of safety and Occupational health has been shown to have a positive and significant influence on employee work productivity (Astutik, 2019).

PT. Alkan Chemical Indonesia operates in the chemical sector, having the role of making and selling chemicals for various industries such as the metal coating services industry orelectroplating, metal painting industry, coating industry, and others. For workers, they really need social security, this is not provided without reason, so that workers no longer need to think about events that are beyond their expectations. For example, someone who works as a worker in a high-rise building really needs social security. Because they don't know that something unexpected could happen to them, which could result in a work accident so they can't work, make them disabled, or worse, die. This social security needs to be a concern for the government to impose penalties on companies that do not register their workforce as members of social security.

Based on the observations that have been made, it was found that problems were closely related to Occupational Health and Safety issues, PT Alkan Chemical Indonesia had a problem because a work accident occurred which befell one of its employees in 2022. From the results of the observations, a work accident occurred, namely the spill of one of the chemicals on the hands of one of the company employees. The following is data on work accidents at the company PT Alkan Chemical Indonesia in 2022:

Table 1. PT Alkan Chemical Indonesia Work Accident Data in 2022

No.	Types of Accidents	Number of Accidents	Causes of Accidents
1.	Exposure to chemicals	1	Close the chemical container tightly

Source: PT Alkan Chemical Indonesia (2023)

From the work accident table data at PT Alkan Chemical Indonesia, it can be concluded that the implementation of occupational health and safety at the company has not actually been running well and smoothly. Some things that, This makes the implementation of occupational health and safety not run smoothly, among other things arising from their own workforce, namely there are several employees who still do not carry out the implementation of occupational health and safety, and do not use personal protective equipment properly, as well as the lack of employee awareness and understanding of safety. and occupational health so that there is still a growing chance of accidents occurring while

working. According to Tarwaka (in Nuraeni, 2019) work accidents can be minimized by using personal protective equipment in the form of head protection (safety helmet, headgear, and hat), eye protection, ear protection, and respiratory protection.

Previous research by (Yuni Astuti et al., 2023) with the title Implementation of Occupational Safety and Health (K3) in the Production Department at the Prillo Shoes Company, Tangerang. Based on the data that has been carried out during the research, the implementation of occupational safety and health at the Prillo Shoes company has not completely run well and smoothly. There are various reasons why this implementation has not run smoothly, namely because there are still many employees who have not fully implemented occupational safety and health, poor use of personal protective equipment, and lack of employee understanding of occupational safety and health. The occupational safety and health equipment provided by the company is very good so that it can anticipate dangers and accidents when employees do their work.

The implementation of occupational safety and health has been carried out by creating a monitoring schedule so that the implementation of occupational safety and health can be evaluated if there are still deficiencies. The company has provided guidance on the implementation of occupational safety and health which is carried out repeatedly and continuously with the hope that employees understand and the implementation of occupational safety and health in the company can run well and smoothly.

Based on the phenomenon of incidents caused by work accidents, one aspect of protecting employees and company assets is to improve employee work safety and health. Through employee safety and health programs, a safe, peaceful and healthy work environment can be created. Based on the background above, the author is interested in doing this research with the title "**IMPLEMENTATION OF OCCUPATIONAL HEALTH AND SAFETY (K3) AT PT ALKAN CHEMICAL INDONESIA**".

## **THEORITICAL REVIEW**

### a) Occupational Health and Safety (K3)

Occupational Safety and Health is a thought based on an effort to ensure the perfection of both physical and mental work of employees in general and also a culture towards prosperity and justice (Wibowo & Widiyanto, 2019).

According to (Qurbani & Selviyana, 2018), the definition of worker health and safety is both psychological and physical in the workplace, if an organization carries out safety and health activities effectively, then employees who are injured or affected by illness will further decrease their performance. .

According to the International Labor Organization (ILO) in Aprilliani et al (2022), Occupational Safety and Health is improving and maintaining the highest level of physical, mental and social well-being of all workers in all types of work, avoiding the occurrence of health problems caused by work, protect workers in each job from risks arising from factors that could harm health, place and maintain workers in a work environment that is appropriate to the worker's physiological and psychological condition and produce compatibility between the job and the worker and each person with their duties.

### FRAMEWORK OF THINKING AND RESEARCH HYPOTHESIS

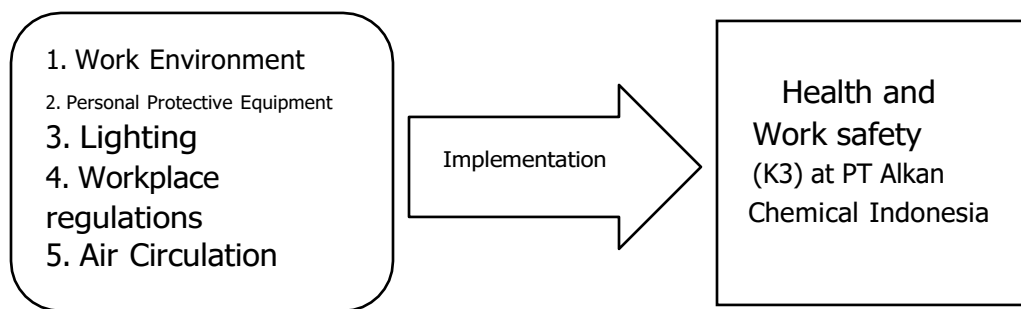


Figure 1. Thinking Framework  
Source: Study from various sources (2023)

The framework above is intended to explain that variable

This is related to what will be researched, namely Occupational Health and Safety (K3) when dealing with work accident problems at PT Alkan Chemical Indonesia, and cannot be separated from the elements of what the company does to provide health insurance to its employees. The hypothesis of this research is that several factors have a positive effect on the implementation of Occupational Health and Safety (K3) for employees of PT Alkan Chemical Indonesia

### RESEARCH METHODS

#### a) Research design

According to Sugiyono (2019:25), this type of research is descriptive qualitative research. The qualitative method is a research method used to examine the condition of natural objects where the researcher is the key instrument. The type of writing used is descriptive writing.

b) Population

Research at PT Alkan Chemical Indonesia with several informants, namely the Human Resources Coordinator, Laboratory Head, and Production Operator Coordinator. With this the total number of informants is 3 people.

c) Data collection technique

Data collection techniques are the most important step in research, because the main aim of research is to obtain data. Without knowing data collection techniques, researchers will not get data that meets the established data standards (Sugiyono, 2019:455). This research uses data collection techniques, namely observation, interviews and documentation.

d) Data source

Based on the source, the data taken in research is classified into primary data. Primary data is data taken directly from the source by researchers, collected through the use of surveys, meetings, focus group discussions, interviews or other methods that involve direct interaction or communication with respondents.

What will be used as primary data in this research is data that was first taken by the researcher in the form of interviews with the HR (Human Resources) Coordinator, the Head of the Laboratory, and the Coordinator of the production operator involved in chemical processing, as well as the results of observations and discussion results. followed by data that supports the implementation of K3 at PT. Alkan Chemical Indonesia.

a) Data analysis technique

Analysis has the meaning of separation or careful examination. Analysis can simply be understood as an effort to analyze or examine something in detail. According to Sugiyono (2020:131) data analysis is the process of systematically searching and compiling data obtained from interviews, field notes and documentation by organizing data into categories, describing it into units, synthesizing it, arranging it into patterns. , choose what is important and what will be studied, and make conclusions so that they are easily understood by yourself and others. According to Miles and Huberman in Sugiyono (2020: 133), activities in qualitative data analysis are carried out interactively and continue continuously until completion, so that the data is saturated.

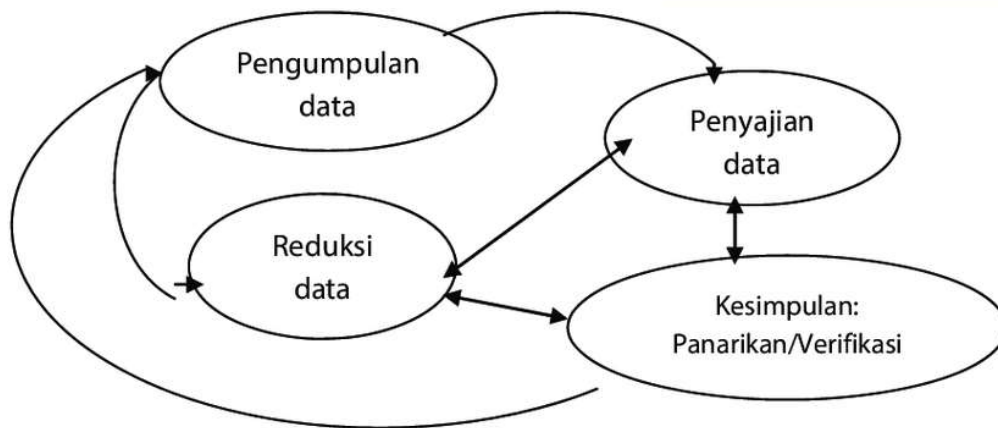


Figure 1. Analysis of the Miles and Huberman Model

Source: Miles and Huberman (1994)

According to the image above, data analysis can be explained as the activity of discussing and understanding data to obtain certain meanings, interpretations and conclusions from all the data in the research. Data analysis in qualitative research requires conceptuality, namely a method of compiling concepts that are designed before entering the field. This is then continued with categorization and explanation, which is done while in the field. Data analysis in this research uses the Miles and Huberman model method. Miles and Huberman (1994) stated that the data collection process carried out 3 important activities including data reduction (data reduction), data presentation (display data), verify (verification).

## RESEARCH RESULTS AND DISCUSSION

The implementation of occupational safety and health carried out at PT Alkan Chemical Indonesia is:

### a) Making an K3 Implementation Pla

The first thing that the PT Alkan Chemical Indonesia company does when implementing occupational safety and health is to create or prepare a plan related to the implementation of occupational safety and health in the company. To prepare a plan containing how to procure occupational safety and health facilities and infrastructure, operate work tools, efforts to deal with potential dangers when working, and about human resources as implementers of occupational safety and health.

b) Implementation Guidance

After making a plan related to the implementation of occupational safety and health in the company, then each section head carries out implementation guidance activities. Guidance on the implementation of occupational safety and health is carried out between the department heads and employees.

c) Carry out a work environment inspection

After forming a plan related to the implementation of occupational safety and health in the company, then the department heads and employees carry out an inspection of the cleanliness of the environment and the tools or machines that will be used or operate to avoid work accidents when carrying out chemical analysis and production activities.

d) Implementation of the Plan

In this phase, what is carried out by the company is to directly carry out training or practice in the use of work protective equipment, operational use of work equipment and direction if problems occur during work and supervision by the head of the section who handles the implementation of occupational safety and health.

e) Implementation Monitoring

At this stage, there is direct supervision of the implementation of occupational safety and health, starting with controlling the completeness of occupational safety and health personal protective equipment for all employees properly and correctly, to controlling the maintenance of machine parts and chemical equipment, then controlling the conditions of the work environment to prevent the emergence of disease. caused by a less clean working environment. For machine maintenance itself, the company usually checks it every day by section heads and employees, then if there are new problems, further inspection is carried out by experts, specifically chemical checks are carried out by section heads and laboratory employees themselves on a regular basis.

Based on the results of data obtained from interviews and observations, researchers carried out data processing, namely:



Table 2. Data on Personal Protective Equipment at PT Alkan Chemical Indonesia

No	Personal protective equipment	Information
1.	Laboratory coat	Good
2.	Face mask	Good
3.	Helmet	Good
4.	Glasses	Good
5.	Gloves	Good
6.	Safety shoes	Good
7.	First aid kit	Good
8.	APAR (Light Fire Extinguisher)	Good

Source: Data processed by researchers (2023)

From the data, the personal protective equipment available at PT Alkan Chemical Indonesia is good enough to prevent danger and accidents from occurring when employees carry out their work. When conducting interviews with company sources, information was provided that the company would soon add personal protective equipment in the form of cleaning showers for the lab after laboratory employees had carried out analyzes on chemicals containing acids and odors.





Figure 1. Chemical Management Site at PT Alkan Chemical Indonesia  
Source: PT Alkan Chemical Indonesia (2023)

From the results of the existing documentation, it can be concluded that PT Alkan Chemical Indonesia has achieved a clean environment, appropriate placement of occupational safety and health signs so that work accidents do not occur, has good lighting and good air circulation too, because every corner is PT Alkan Chemical Indonesia already has very bright lighting so it can operate safely, with lots of air ventilation and hexos fans so that air produced from chemicals does not settle in the room because it can be dangerous for employees.

In the implementation of occupational safety and health carried out by PT Alkan Chemical Indonesia, it has not yet run completely smoothly, several obstacles are still found, namely:

1. There is still a lack of occupational safety and health equipment in the laboratory
2. Employees have minimal understanding of the implementation of occupational safety and health and the use of personal protective equipment when working.
3. There are still many employees who think that implementing occupational safety and health is something that is not important because usually companies only demand results from employees' work, not about implementing occupational safety and health.

The solution implemented is related to the above obstacles, namely providing a gradual lack of complete occupational safety and health equipment to help smooth the implementation of occupational safety and health, providing guidance and supervision on the implementation of occupational safety and health and providing sanctions for not using personal protective equipment in accordance with the provisions.

## CONCLUSIONS AND IMPLICATIONS

Based on the research results above, it can be concluded that the implementation of K3 at PT Alkan Chemical Indonesia has gone quite well because after a work accident occurred in 2022, whereas in 2023 there were no work accidents at all. However, companies still need to add all K3 equipment both in the laboratory and in the production department, as well as carry out continuous evaluation and guidance on the implementation of K3 with the aim that employees understand and have more insight into the importance of implementing K3 for employees and the company. For future researchers, it is necessary to carry out in-depth research regarding K3 SOPs in companies. The addition of K3 tools and signs will greatly influence their effectiveness in perfecting this research.

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