



## Evaluation Of Occupational Accident Risk In The Implementation Of Occupational Safety And Health (K3) In Cibubur Transpark Project

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### Abstract

The importance of implementing the K3 program is always a concern so that the program becomes better and work accidents can be minimized. Like a work accident in a construction project. The process of building construction projects in general is an activity that contains many elements of danger. The situation in the project location reflects a tough character and the activities look very complex and difficult to carry out so that excellent stamina is needed from the workers who carry it out. However, it cannot be denied that this construction work is a contributor to a fairly high number of accidents. The number of cases of work accidents and occupational diseases is very detrimental to many parties, especially the workers concerned (Ervianto, 2005.) The application of K3 programs in development projects is also important because the risk of accidents is high. In addition, it must also be supported by the awareness of workers to maintain personal safety while working has increased. It can be seen from the number of accidents. And the case of employment problems. Based on data, companies that have successfully implemented the OHS Management program have increased to 1,221 companies. This number is up about 69.1 percent from 2016.

**Keywords : Evaluation, Accident Risk, Work Safety**

### Introduction

Occupational Health and Safety (K3) is all science and its application to prevent the occurrence of Occupational Diseases (PAK). Work accidents in building construction are something that often happens in the process of building a construction project, the number of work accidents in Indonesia still ranks the highest for the Southeast Asian region, citing data from the Employment Health Insurance Administration Agency (BPJS), based on BPJS Employment data in 2018 there were 114,148 accidents. In 2019 there were 77,295.

The implementation of the OHS program in development projects is also important because of the high risk of accidents. In addition, it must also be supported by the awareness of workers to maintain personal safety while working has increased. It can be seen from the number of accidents. And the case of employment problems. Based on data, companies that have successfully implemented the OHS Management program have increased to 1,221 companies. This number is up about 69.1 percent from 2016. The importance of implementing the K3 program is always a concern so that the program becomes better and work accidents can be minimized. Like a work accident in a construction project. The process of building construction projects in general is an activity that contains many elements of danger. The situation in the project location reflects a tough character and the activities look very complex and difficult to carry out so that excellent stamina is needed from the workers who carry it out. However, it cannot be denied that this construction work is a contributor to a fairly high number of accidents. The number of cases of work accidents and occupational diseases is very detrimental to many parties, especially the workers concerned (Ervianto, 2005.) Work accidents often occur due to the lack of fulfillment of requirements in the implementation of K3. In this case the government as a state administrator has an obligation to provide protection to workers. This is realized by the government with the issuance of regulations such as: Law of the Republic of Indonesia (UU RI) No. 1 of 1970 concerning work safety, Law no. 3 of 1992 concerning Labor Social Security (JAMSOSTEK), and the Minister of Manpower Regulation No: Per.05/Men/1996 concerning the OHS management system.



The possibility of accidents that occur in construction projects is one of the causes of disruption or cessation of project work activities. Therefore, when carrying out construction work, it is required to implement OHS management at work sites where occupational safety and health issues are also part of project planning and control. Occupational safety is a problem that attracts the attention of many organizations. If you want good construction results, you have to start with a good process. In this study, it is emphasized that the K3 problem in construction is not a simple thing, because it greatly affects the loss of the project development process. It is hoped that this research can be used as a guideline for the implementation of K3 for construction development in order to achieve safety for workers in carrying out work.

## Methodology

### Types of research

This research is an evaluative research. Evaluative research is carried out by evaluating the application of Occupational Safety and Health (K3) and evaluating the risk of work accidents at the Transpark Cibubur Project, especially in the process of installing bricks and plastering. Research data in the form of a table of potential methods and possible risks of work accidents on the Transpark Cibubur project.

Then identification, assessment, and handling of OHS risks are carried out in the Cibubur Transpark development project. This research is qualitative in nature by conducting interviews and distributing questionnaires to several staff at least at the supervisory level and workers / craftsmen on the project who were selected as respondents. so that the results of the questionnaire distribution are assessed to obtain the level of risk using a semi-quantitative method based on AS/NZS 4360 which has been processed using Ms. excel.

### Mindset

To conduct a study or analysis of an activity, a mindset/framework of thought is needed in the form of a research scheme that serves as a description of the research process, this scheme helps describe the purpose and direction of writing used by researchers so that this research is more effective, systematic and efficient.

First, identify the problems that occur, then write the formulation of the problem that will be raised into a problem to be solved, then the research method consists of primary data in the form of questionnaires and secondary data in the form of a work location plan and geographic location then the data is processed by analysis. work accident risk data, the application of K3 and review of implementation, review of implementation and supervision, so as to obtain the results of the analysis, discussion and conclusions.

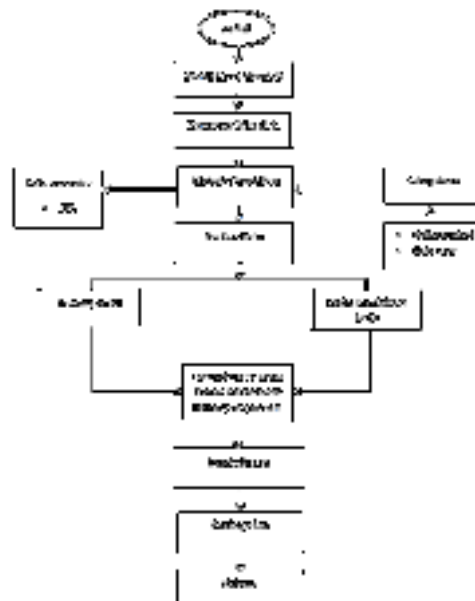


Figure 1: frame of mind

## Result

Discussion of the results of the analysis of the application of K3 bricklaying

The percentage of the use of personal protective equipment obtained from the study of bricklaying work is 63% using PPE, 33% sometimes and 3% never, therefore awareness is needed from workers to use PPE that has been provided by the K3 management in Transpark Cibubur project. The following table shows the percentage of the application of K3 using PPE for bricklaying:

Table 1: percentage of PPE use

No	Penergunaan APD	Jenis Pekerjaan						% Yang mematuhi peraturan K3 total %
		Pemasangan bata						
		Jhelm safety	Sepatu safety	Kompi safety	Sarung tangan	Masker debu	Masker wajah	
1	ya	10	11	5	5	11	7	63%
2	kadang-kadang	0	2	5	1	7	5	33%
3	tidak pernah	0	11	11	2	11	11	3%
total %								100%



Figure 2: the application of the use of PPE for laying bricks

Discussion of the results of the analysis of the application of stucco K3

The percentage of the use of personal protective equipment that can be obtained from plastering work is 63% using PPE, 28% sometimes and 8% never, therefore awareness is needed from workers to use PPE that has been provided by the K3 management in the project Transpark Cibubur. The following table shows the percentage of K3 application using PPE for plastering work:

Table 2: Percentage of PPE use

no	Penergunaan APD	Jenis Pekerjaan						% Yang mematuhi peraturan K3 total %
		Pekerjaan plesteran						
		Jhelm safety	Sepatu safety	Kompi safety	Sarung tangan	Masker debu	Masker wajah	
1	ya	10	11	5	4	5	4	63%
2	kadang-kadang	0	11	5	4	11	5	28%
3	tidak pernah	0	11	11	2	2	1	8%
total %								100%



Figure 3: the application of the use of PPE for plastering installation

#### Discussion of the results of the work of laying bricks

The average value of the level of risk obtained by researchers from bricklaying work is in the medium category, therefore the process of laying bricks requires caution, the stamina of the workers and the use of personal protective equipment provided by the K3 management of the Transpark Cibubur project. The following table summarizes the value of bricklaying work:

Table 3: Analysis of the risk level of light brick laying accidents

No	Risk Factor	Risk Points
1	Prosedur pekerjaan sederhana	5,50
2	alat dan bahan yang memadai	3,00
3	alat dan mesin yang tidak memadai	2,00
4	tidak jeda istirahat pekerjaan	2,50
5	Pelaksanaan pekerjaan tidak	3,75
nilai Exposure		17,75
Tingkat Risiko		Rendah
Tingkat Risiko		Medium
Tingkat Risiko		Tinggi

#### Discussion of Plastering Work Results

The average value of the risk level obtained by the researchers from plastering work is in the medium category, considering that plastering is a job that requires accuracy and caution by workers so that plastering results are flat and neat, therefore plastering work is required for workers to comply with regulations. Work safety that has been made by the K3 department is awareness of wearing personal protective equipment and working safely. The following table summarizes the value of plastering work:

Table 4: Analysis of the risk level category of plastering work accidents

No	Risk Factor	Risk Points
1	Prosedur pekerjaan sederhana	5,50
2	alat dan bahan yang memadai	3,00
3	alat dan mesin yang tidak memadai	2,00
4	tidak jeda istirahat pekerjaan	2,50
5	Pelaksanaan pekerjaan tidak	3,75
nilai Exposure		17,75
Tingkat Risiko		Rendah
Tingkat Risiko		Medium
Tingkat Risiko		Tinggi

In a short period of time, researchers conducted research on the Transpark Cibubur project, researchers rarely found potential hazards that could lead to fatalities for workers. However, there are several risks of low-level accidents that are often experienced by workers, one of which is the eyes being exposed to dust or sand when cleaning the work area. The researcher emphasizes once again that the research in the Transpark Cibubur project does not mean that it does not have a high accident hazard potential, but because the research time is limited.

## Conclusion

Based on the results of this study, the conclusions are: The application of Occupational Safety and Health (K3) for bricklaying work carried out by workers on the Transpark Cibubur construction project is quite good, so as to minimize work accidents on the project. The application of K3 in the Transpark Cibubur construction project in bricklaying work can result in high productivity for the company. The average obtained in the checklist process in the field of applying K3 in the field on the use of PPE by workers is 63%, sometimes 33% and never 3%. In the percentage never, the workforce has a reason for discomfort at work when using PPE. The application of Occupational Safety and Health (K3) for plastering work carried out by workers on the Transpark Cibubur construction project is also quite good, so as to minimize work accidents on the project. The application of K3 in the Transpark Cibubur construction project in plastering work can result in high productivity for the company. The average obtained in the checklist process in the field of applying K3 in the field on the use of PPE by workers is 63%, sometimes 28% and never 8%. The risk control applied by the department to the Transpark Cibubur development project to minimize accidents can be seen with the application of K3 in the field. From observations in the field, one of the risk control points implemented is the provision of PPE for all elements of workers in brick and plaster work quite well. , so that both jobs are categorized quite well. Based on the results of research on the Transpark Cibubur development project, the level of risk that occurs in brick and plaster work is included in the medium category, the average value of the risk level on the observed work items is as follows: In the formwork work, 6,254. On iron work 7.13

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