

FACTORS ASSOCIATED WITH THE APPLICATION OF HEALTH AND SAFETY MANAGEMENT PROGRAM

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Abstract: The issue of occupational safety and health is the responsibility of all parties especially employers, workers and the community. The number of labor accidents in Nagan Raya Regency in 2018 there was an increase of 23 cases of accidents against workers, consisting of (1) Traffic accidents on the way home from work to home there were 2 people, (2) sprained when repairing electricity poles 2 people fell down and (3) was shocked when installing electricity there was 1 person. The purpose of this study is to determine what factors are associated with the implementation of occupational safety and health management programs at PT. PLN (Persero) ULP Jeuram Nagan Raya Regency. This type of research is quantitative research using cross sectional. The sample used was 56 employees at PT. PLN (Persero) ULP Jeuram. Analysis of the data used is univariate and bivariate analysis. The results showed that there was a relationship between work discipline factors and the implementation of occupational safety and health management programs, namely p-value = 0.004 (p-value <0.05), there was a relationship between training factors with the implementation of occupational safety and health management programs namely p-value = 0,000 (p-value <0.05), there is no relationship between the supervisory factor and the implementation of occupational safety and health management programs that is p-value = 0.343 (p-value > 0.05) and there is a relationship between the K3 evaluation factor and the application of occupational safety and health management programs, namely p-value = 0.001 (p-value <0.05). It is recommended for the management of PT. PLN (Persero) ULP Jeuram to make improvements to the existing K3 management system so that ultimately it can improve the performance of workers which will certainly provide positive benefits for PT. PLN both financially and non-financially.

Keywords: Discipline, Training, Supervision, Evaluation, K3

Introduction

The government has established a policy to protect workers in terms of occupational safety and health (OSH) through legislation. Safety and occupational health (K3) legislation is an effort to prevent occupational accidents, occupational diseases, blasting, fires, and pollution of the work environment which are applied according to the type and nature of work activities and working environment conditions (Silaban, 2013).

The issue of occupational safety and health is the responsibility of all parties, especially employers, workers and the community. Article 1 paragraph (1) Government Regulation Number 50 of 2012 concerning the Implementation of the Occupational Safety and Health Management System (K3) states that the OHS management system is part of the overall company management system in the context of controlling risks related to work activities in order to create a workplace that is safe, efficient and productive (Husni, 2015).

At the global level, protection of occupational safety and health has also received the attention of the ILO (International Labor Organization) through various guidelines and conventions on occupational safety and health. As a member of the ILO, Indonesia has clarified and followed various standards and requirements for occupational safety and health including the K3 management system (Ramli, 2016).

Research carried out by the ILO's world body resulted in a conclusion that every day an average of 6000 people die, equivalent to one person every 15 seconds or 2.2 million people per year due to illness or accidents related to their work. The number of men who die is twice as many as women, because they are more likely to do dangerous work. Overall accidents at work have killed 350,000 people. The rest died due to illness suffered at work such as unloading toxic chemicals (ILO, 2016 in Suardi, 2017).

The issue of occupational safety and health is not solely the responsibility of the government but is the responsibility of all parties, especially employers, workers and the community. Based on PEMNAKER 05 / MEN / 1996, companies that employ a workforce of 100 or more people and have the potential hazards caused by the characteristics of the material production process that can result in work accidents such as blasting, fire, pollution and occupational diseases, are required to apply Safety and Health Work (K3) (Ilham, 2012).

Statistics on occupational accidents from the BPJS Employment show that up to the end of 2015 there have been 103,074 cases of work accidents, including 91.21% of victims including recovered accidents, 3.8% experiencing disability, 2.61% partially disabled, and the rest died world (2,419 cases) and experience permanent total disability (37 cases), with an average of 282 work accident cases every day. While in 2016 the cases reached 103,285 which means an increase of 1.76%, then until 2017 the number of work accidents reached 123,264 cases from January to December 2017 (BPJS, 2018).

BPJS Employment of Sumbagut (2018) states the number of occupational accidents BPJS Employment in 2017 reached an average of 226 cases per day. Of the number of cases, including 20 people every day have disabilities, 7 people died and 1 person with total disabilities. While BPJS Employment data up to 30 October 2017, there were 88,000 cases of work accidents or an average of 303 cases per month.

The number of labor accidents in Nagan Raya Regency in the past 4 (four) years has increased. In 2015 there were 12 cases of accidents involving workers, in 2016 there were 13 cases of accidents, in 2017 there were 18 cases of accidents and in 2018 there were an increase of 23 cases of accidents against workers (Mejaboh BPJS Employment, 2018).

Field employees are the employees who have the most risk of work accidents because of the type of work directly related to dangerous equipment (Milyandra, 2016).

Work accidents are caused by two factors, namely humans and the environment. Human factors are unsafe actions from humans such as deliberately violating the required safety regulations and lack of skilled workers themselves. While environmental factors, namely the insecurity of the work environment involving, among other things, equipment or machinery, but the frequency of work accidents is mostly due to human factors, because humans play the most role in using equipment in the company.

Research purposes

To find out what factors are related to the implementation of occupational safety and health management programs.

Results and Discussion

Results

Univariate Analysis

Table 1. Disciplinary Frequency Distribution, Training, Supervision, Evaluation and Management of Occupational Safety and Health

Discipline	Frequency	Percentage (%)
Discipline	26	46,4
Undisciplined	30	53,6
Work training		

There is	25	44,6
no	31	55,4
Work Supervision		
There is	37	66,1
no	19	33,9
Work Evaluation		
good	25	44,6
low	31	55,4
K3 Management		
good	35	62,5
Not good	21	37,5
Total	56	100

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Table 2. Relationship of Work Discipline with Management of Occupational Safety and Health

Work Discipline	Implementation of the K3 Management Program				Total		Nilai P Value	Odds Ratio (CI 95%)
	good		Not good		n	%		
	n	%	n	%				
Discipline	22	84,6	4	15,4	26	100		7,192
Undisciplined	13	43,3	17	56,7	30	100	0,004	(1,986 – 26,051)

Table 3. Relationship of Training with Occupational Safety and Health Management

Training	Implementation of the K3 Management Program				Total		Nilai P Value	Odds Ratio (CI 95%)
	god		Not good		n	%		
	N	%	n	%				
There is	23	92,0	2	8,0	25	100		18,208
no	12	38,7	19	61,3	31	100	0,000	(3,619 – 91,601)

Table 4. Relationship between Supervision and Management of Occupational Safety and Health

Supervision	Implementation of the K3 Management Program				Total		Nilai P Value	Odds Ratio (CI 95%)
	Good		Not good		n	%		
	N	%	n	%				
There is	21	56,8	16	43,2	37	100		0,469
No	14	73,7	5	26,3	19	100	0,343	(0,140 – 1,573)

Table 5. Relationship of K3 Evaluation with Management of Occupational Safety and Health

Evaluation	Implementation of the K3 Management Program				Total		Nilai P Value	Odds Ratio (CI 95%)
	Good		Not good		n	%		
	N	%	n	%				
Good	22	88,0	3	12,0	25	100		10,15
low	13	41,9	18	58,1	31	100	0,001	(2,50 – 41,235)

Discussion

Relationship of Work Discipline with Management of Occupational Safety and Health Based on the results of statistical tests using Chi-square analysis it is known that the value of P-value = 0.004 and this is smaller than $\alpha = 0.05$ (P-value = 0.004 < $\alpha = 0.05$), this means that there is a significant relationship significant between work discipline with the implementation of occupational safety and health management program in PT. PLN (Persero) ULP Jeuram Nagan Raya Regency.

The results of this study are in line with the research of Trisna Lestari (2014), which suggests that there is a positive relationship between employee K3 discipline and the application of occupational safety and health, with a P value obtained is 0,000 (P < 0.05).

The results of data analysis in this study indicate that the Work Discipline variable has a significantly positive relationship to the application of occupational safety and health. Work discipline is a form of individual responsibility for the tasks it receives and must be carried out properly in order to preserve the occupational safety and health of employees. The management of PT. PLN (Persero) ULP Jeuram Nagan Raya Regency has sanctioned employees who have violated company regulations with fines in the form of reprimands and warnings so that employees continue to maintain discipline in work. By enforcing reprimands and warnings for violators, employees will be more disciplined in working. This is to keep employees orderly and not violate the rules that apply for the smooth running of work and the creation of employee safety and health properly.

Discipline is very necessary in the world of work because it is seen as a binding and integration factor and is a force that can force individuals to comply with rules and work procedures that have been determined. Discipline affects work safety and health so that employees can carry out work safely and healthily. For this reason, knowledge and understanding of occupational safety and health (K3) must be applied and given to every employee at PT. PLN (Persero) ULP Jeuram Nagan Raya Regency.

Discipline can occur when members are happy to implement the rules, norms, instructions of their superiors and obey the rules that are stated to apply to him. Following the Standard Operating Procedures from PLN are all efforts or measures to safeguard electricity installations and to secure the use of electricity to create reliable conditions for installations and conditions safe from danger to humans, as well as environmentally friendly conditions (environmentally friendly) in the sense of not damaging the environment around the electric power installation is an effort made by the employees of PT. PLN (Persero) ULP Jeuram Nagan Raya Regency to create a safe, comfortable working atmosphere for employees, so that employees can comply with applicable SOPs, maintain a safe distance when working and be able to work with colleagues.

SOPs that apply to PLN are divided into several sections, namely SOP for the implementation of disturbance detection, SOP for PHB-TR replacement and SOP for substation transformer replacement which must all be done by paying attention to work tools, K3 equipment, work steps, and materials needed in the work.

According to Yulianti (2012), the role of the discipline of the application of Occupational Safety and Health (K3) is very necessary because by looking at events that have occurred in large companies there are many events or events which directly involve work safety. Occupational Safety and Health (K3) in the company is one of the important problems in the company, especially in the operational process. The application of Occupational Safety and Health (K3) in the work environment has the intention of maintaining the workforce from the threat of workplace accidents and occupational diseases, including the incidence of work stress.

Relationship Training with Occupational Safety and Health Management

Based on the results of statistical tests using Chi-square analysis it is known that the value of P-value = 0,000 and this is smaller than $\alpha = 0.05$ (P-value = 0,000 $< \alpha = 0.05$), this means that there is a relationship significant between training and the application of occupational safety and health management programs at PT. PLN (Persero) ULP Jeuram Nagan Raya Regency.

Safety training has a positive and very real relationship with the implementation of an occupational safety and health management program at PT. PLN (Persero) ULP Jeuram Nagan Raya Regency. The training held by PT. PLN (Persero) ULP Jeuram Nagan Raya Regency aims to train employees in avoiding work accidents and protecting themselves in the event of work accidents. The existence of safety training makes employees become more trained and skilled and more careful in doing their jobs.

K3 training is a process of helping workers to gain effectiveness in their current or future work through developing habits about appropriate thoughts, actions, skills, knowledge and attitudes. Occupational safety and health training is training organized and directed to equip, improve and develop the capabilities, productivity and welfare of the workforce (Hastono, 2011).

The results of this study are in line with the results of research conducted by Prasestia Ningsih et al (2015) that there is a relationship of OHS training to the application of OHS management with a p-value of 0,000 (P < 0.05). Furthermore, based on the results of Soeripto's research (2014) also said that there was a significant relationship between training factors and the application of OHS to work employees.

The needs for occupational safety and health training between one company and another differ according to the nature of the hazard, the scale of the activity and the conditions of the workers. Occupational safety and health training is very important considering that most accidents occur in workers who are not accustomed to working safely. The cause is ignorance about the danger or how to prevent it even though it knows about the existence of a risk.

There are still workers who reveal that they have never attended OSH training. It is possible that during the implementation of the training, these workers did not attend it for certain reasons, such as leave or sickness. Judging from the effects caused by attending K3 training, respondents who were previously still lacking in working experience stated that after attending training many things were already known and very influential on the performance of work performed and would behave safely while working, on the other hand those who did not attend the training answered will feel afraid at work because of lack of experience and knowledge of the work.

On the other hand, respondents who did not attend K3 training for workers also felt that there was insufficient influence on work performance. In this study there were respondents who had attended OSH training, but were classified as unsafe behavior at work, because there were other factors that influence besides the knowledge they got from OSH training, namely skills, motivation, intelligence abilities, and personality, knowledge, skills, motivation, intelligence abilities, and employee personality must be good (Silaban, 2013).

The provision of occupational health and safety training which is focused on efforts aimed at minimizing occupational accidents is very necessary. In addition to being able to motivate workers there needs to be an increase in incentives and other schemes such as medical care, compensation or health insurance for workers as one of the policies to protect workers. Occupational health and safety training is one of the important tools in ensuring work competition needed to achieve occupational safety and health goals (Suma'mur, 2014).

The results of this study are in accordance with the theory which states that an increase in knowledge and skills of a person after getting training. Effective occupational safety and health training can improve the ability of trainees, because in the training there is a learning

process to better recognize the potential hazards that can result in work accidents (Nasution, 2016).

Workers at PT. PLN (Persero) ULP Jeuram, Nagan Raya Regency, was dominantly having the last high school education, so it had to be included in K3 training. This allows the occurrence of work accidents on workers caused by lack of knowledge or K3 experts in increasing workers' understanding of the risks of work accidents in PT. PLN (Persero) ULP Jeuram Nagan Raya Regency.

With the lack of OSH experts in the company, the company needs to add workers who are experts in OSH, because it can provide knowledge to other workers and will certainly help develop OSH knowledge at PT. PLN (Persero) ULP Jeuram Nagan Raya Regency. One effort to prevent accidents due to work at PT. PLN (Persero) ULP Jeuram Nagan Raya Regency is to provide guidance to workers. Guidance for workers, especially foremen (supervisors) in the field which includes training and education. The objective of conducting OHS training in principle is to improve workers' knowledge and skills in doing their jobs.

Relationship of Supervision with Occupational Safety and Health Management

Based on the results of statistical tests using Chi-square analysis it is known that the P-value = 0.343 and this is smaller than $\alpha = 0.05$ (P-value = 0.343 $<$ $\alpha = 0.05$), this means that there is no relationship which is significant between supervision and the implementation of an occupational safety and health management program at PT. PLN (Persero) ULP Jeuram Nagan Raya Regency.

The results of this study are in line with research conducted by Hadi (2017) which states that there is no relationship between supervision and the application of OHS management to employees. This result is also in line with what is done by Noviandri (2015) which shows the results there is no relationship between supervision and the use of PPE (personal protective equipment) for workers in implementing OSH management.

Efforts to improve the implementation of K3 in PT. PLN (Persero) ULP Jeuram Nagan Raya Regency is not enough to increase employee knowledge and discipline in using personal protection equipment, but intensive supervision is also needed so that the work can run smoothly, safely and in accordance with established procedures. Supervision implemented so far is included in the good category, meaning that supervision has been carried out continuously and has been well implemented.

There is no relationship between the application of the supervision program to the compliance of the use of PPE on workers because some supervisors do not neglect their workers and adhere to use PPE (personal protective equipment), the foreman / supervisor in supervising the use of PPE on workers has also been detailed, such as reprimanding workers who not suitable for wearing PPE safety shoes, helmet safety and worker gloves. However, foremen who have many workers cannot supervise their workers in detail so that compliance with the use of PPE is not given much attention. Therefore, workers are not motivated to obey using PPE in the presence of this monitoring program.

Supervision of good work for an employee, will have an impact on their performance and of course with good employee performance will achieve the objectives of the organization. Supervision conducted by the PT. PLN (Persero) ULP Jeuram Nagan Raya Regency is still not going well. The supervisors pay less attention to the completeness of the use of PPE on workers, this happens because the K3 officers in the area of PT. PLN (Persero) ULP Jeuram is less disciplined and strict in supervision conducted at PT. PLN (Persero) ULP Jeuram when workers are working. In this case the management must conduct an evaluation and hold talks and also training K3 officers to work more disciplined and firm in supervising workers in work.

Occupational accidents caused by lack of supervision of machinery, and human factors (for example: the use of Personal Protective Equipment (PPE), attitudes or ways of working at work that can enable workplace accidents. Therefore, to reduce the risk of work accidents, companies need supervise and pay attention to workers who work using PPE, whether PPE is used in accordance with the needs of the workforce, nothing is negligent in using PPE Monitoring of the use of PPE is routinely carried out, so that in its use is more optimal and work environment is safe and comfortable.

Improved occupational safety and health will be effective if all parties in the company are encouraged to participate in the implementation and development of the OHS Management System, and have a corporate culture that supports and contributes to the OHS Management System. Therefore, supervision is one form of function that can create a culture of occupational health and safety because with the supervision, the government can keep every company running a health and safety management system so that the level of work accidents that occur can be reduced so that health and safety can really entrenched in all walks of life.

The Relationship between Work Safety and Health Evaluation with Work Safety and Health Management

Based on the results of statistical tests using Chi-square analysis it is known that the value of P-value = 0.001 and this is smaller than $\alpha = 0.05$ (P-value = 0.001 $< \alpha = 0.05$), this means that there is a relationship significant between K3 evaluation and the implementation of occupational safety and health management programs in PT. PLN (Persero) ULP Jeuram Nagan Raya Regency.

The results of this study are in line with that conducted by Towidjoyo (2012), that there is a relationship between K3 evaluation in the implementation of a health and safety management system at the Makassar Pertiwi maternity hospital, p value of 0.01 (P <0.05). This study is also in line with the results of Margaretha's study (2015) which shows the P value obtained is 0,000 (P <0.05), which means that there is an effect of evaluation on the application of OSH in building projects in Cirebon Regency.

Evaluation of occupational health and safety for companies is very beneficial to the implementation of the occupational health and safety system (K3) so that it can reduce the level of accidents that occur and minimize losses (both financial and non-financial both caused by work accidents. Review and increase by the management on an ongoing basis to ensure the suitability and effectiveness in achieving OHS policies and objectives. This stage is carried out as a concrete step towards the results of monitoring and evaluation that have been carried out.

Some things that were not implemented or achieved in the implementation of K3 in PT. PLN (Persero) ULP Jeuram Nagan Raya Regency which caused the achievement did not reach the good category, including (1) periodic review of OHS policies and other special policies; (b) not yet including OSH performance in the annual report at PT. PLN (Persero) ULP Jeuram; (c) the management has not reviewed the implementation of the K3 management system periodically, and records and documentation of this review has not been carried out; (d) the dissemination of information about K3 has not been fully carried out to employees at PT. PLN (Persero) ULP Jeuram; (e) there is no standard monitoring for hazard inspection at PT. PLN (Persero) ULP Jeuram; (f) PT. PLN (Persero) ULP Jeuram has not conducted an internal audit of the K3 management system and (g) has not fully conducted training to develop the skills and abilities of its employees.

Occupational Safety and Health Management System (SMK3) is part of the overall management system which includes the organizational structure, planning, responsibilities, implementation, procedures, processes and resources needed for the development of

implementation, achievement, assessment and maintenance of occupational safety and health policies in order to create a safe, safe, efficient and productive workplace.

Conclusion

Based on the results of research on the factors related to the implementation of occupational safety and health management programs it can be concluded There is a relationship between disciplinary, training and evaluation factors with the application of occupational safety and health management programs and there is no relationship between supervision with the implementation of occupational safety and health management programs.

Suggestion

Management of PT. PLN (Persero) Jeuram ULP is a determinant of company policy to make continuous improvements to the existing K3 management system so that it can ultimately improve the performance of workers which will certainly provide positive benefits for PT. PLN both financially and non-financially.

For Employees To be more concerned with occupational safety and health, by adhering to the occupational safety and health management system that has been in force in the company.

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