

A SAFETY BEHAVIOR OF MANUFACTURING OFFICER IN THE WORKPLACE

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ABSTRACT

The purpose of this research was to study the factors that affect employee safety behaviors in the workplace environment and guidelines for preventing and solving accidents from work of production workers. The sample group that used 83 people using the tool is a questionnaire divided into 3 parts, namely (1) working environment, (2) prevention guidelines and correct the accident from the questionnaire as a checklist, (3) the questionnaire is a rating scale.

Results from this research of 83 respondents in the work environment, the results are summarized as follows: (1) Lighting in the workplace is sufficient representing 83.10 percent, (2) the sound of machines that do not affect the workplace accounted for 75.90 percent, (3) the optimum temperature at work 53 %, (4) dust in the work area 94 %, (5) chemical area at work accounted for 72.30 percent.

Guidelines for preventing and solving problems, the results were as follows: (1) training should be conducted for new employees before working as 91.60 %, (2) there should be surveillance of safety equipment before working, 89.20 %, (3) should have a verbal warning to employees who do not wear safety equipment before working accounted for 91.60 %, (4) should provide a warning to employees who do not wear safety protection equipment before performing work, accounting for 73.50 %, (5) should have a work suspension for employees who do not wear equipment Protect safety before working, accounted for 63.90 %. Guidelines for preventing and solving employee behavior problems, the results are summarized as follows.

Solutions found that the total average of work behavior of employees: the overall behavior was at a moderate level of $\bar{X} = 3.03$. The highest average score was wearing safety protective equipment at all times of $\bar{X} = 4.84$ followed by using the correct working equipment according to the job type of $\bar{X} = 4.82$ while working. There were conversations with colleagues of $\bar{X} = 2.87$ while working there was a conversation with colleagues of $\bar{X} = 2.37$. There was a body that was not ready to work of $\bar{X} = 2.08$ and the points with point average minimum drink alcohol or alcohol before entering work of $\bar{X} = 1.17$.

Keyword: Safety, Manufacturing Officer, Production operation level

INTRODUCTION

Safety is a disaster, but in practice, it is difficult to eliminate all kinds of disasters completely. Without the danger that may occur during the operation of the accident is an incident that has not been planned in advance, which causes injury, disability or death and damage to property, affecting the work process causing the work to be delayed, wasting time, important causes of birth accident prevention cannot be controlled by a hundred per cent but can reduce accidents. The cause that may cause an accident is due to the following issues: (1) Accidents that are caused by persons who work in various duties And the main cause of the accident, (2) Accidents caused by mechanical conditions and equipment used in the work, (3) Accidents that are caused by the work environment, organization or factory that the person is working. In Thailand, technology has been continuously developed to produce products with this rapidly developed production system is a direct result of workers' casualties and property damage due to the inevitable accident in the factory. The occurrence of an accident is partly a problem due to human shortcomings. Recognizing the hazardous conditions in the work of employees is one way to lead to safe working behavior to prevent the loss that will occur. Both direct and indirect, raise the level of the factory or business establishment for the management of safety, occupational health and environment in the workplace great attention in line with international law and standards, which will lead to correct and prevent injuries from working concrete.

Since Thailand has developed from an industrial agricultural structure, it causes more economic expansion in the industrial sector in order to be able to deliver the results of labor in the work, knowledge and ability to perform work according to the standard of work with Safe, which is harmful to health threats, is one of the causes that cause pain, illness, loss of life workers, including the impact on the environment (Chaisilp, 2010). Therefore, for the safety of workers, workers - whatever should be changed to work behavior to ensure work safety (Techatiwat, 2012). Safe in the workplace to be successful, we must have good food and safety management system with a clear and concrete policy, which the safety officer at work, the supervisor level and the management of people in the human development compound in the organization to have a better understanding and awareness of safety, can be seen that the safety officer at the professional level has a huge role in the security system in his own organization to maintain the five security systems that remain and continue continuously Therefore, if the personnel in safety, safety and behavior (Thangsuwan, 2012), where the factory executive pay more attention to the production process than the safety, occupational health and environmental management of the factory. No SHE development policy has been established, including no cultivating attitudes and promoting SHE management for employees. Both employers and employees still lack knowledge about SHE laws and measures related to employees. Employees are using personal protective equipment on the way. The factory provides according to the regulations set by the employer but still lacks true understanding. People living in the vicinity of the factory lack knowledge and awareness about the effects of factory pollution. It is important to provide knowledge about laws and safety measures for employers, employees and people.

While the industry has developed growth in different parts of the world, including Thailand Industry accidents seem to grow as well. We have lost money due to an accident tens of millions of baht per year must lose many things due to accidents, both measurable and measurable, which is a great need for all parties involved in the industry to help eliminate and prevent accidents cooperate together making the industrial work safer. The results obtained from safe operation in the operation by adhering to the principles of safety when there are no accidents in the workplace and still produce good results. Making the working atmosphere feel safe Employees have a good feeling of work, not having to worry about accidents making it possible to work full of strength and encouragement and the quality of the product and the productivity increase with the motivation to work. When employees feel safe in the workplace, the employees will have morale in the work, reduce the production cost when the work is safe, the damage will be with little productivity high working efficiency reduce medical expenses, reduce damage from accidents, increase profits and work safely when accidents can be reduced making the factory more profitable, using human resources more efficiently. Each employee with expertise will need time to practice. When an accident occurs usually supervisors and administrators are often interested in cases that cause serious injury to people who have to go to the hospital and overlook the causes of small accidents especially caused by "negligence" because that is not important and is considered a personal matter that the worker must correct. But at the right time, the supervisor should give priority to accidents every time. Regardless of minor injuries or damage or not, we should immediately investigate the accident after it happens or as soon as possible delays often cause people in the event to forget the details.

OBJECTIVES

To study the safety behaviors of employees at the operational level, the production department and accident prevention guidelines.

METHODOLOGY

Scope of Research

Area boundary data collection for production staff in Pluak Daeng District, Rayong Province, the scope of content studied by the concept of Suwaree Inkaew: 2005 was conducted as a guideline including (1) Work safety behaviors include working environment, (2) Accidents from work include (i) prevention guidelines and solving personal problems (ii) prevention guidelines And solving work behavior problems, time boundaries, time spent studying and collecting data for 9 months.

This research the researcher chose to use the tool to perform the operation by using the tool as a questionnaire, divided into the following topics:

1. The population studied at this time was 95 employees in the production department.

2. Sample group Take the population of Came to find a sample by comparing from Craigie and Morgan's table (Krejcie & Morgan referred to in Suwimon, 2003: 46-48, social science research regulations Practices) in which 95 production workers were selected by random sampling of 83 employees by random sampling of 83 employees.

Research tools

The questionnaire used in the survey of opinions and trends by dividing the tools used as a questionnaire is divided into 3 parts as follows.

The tool used to collect data is a questionnaire, by introducing the concept of Nawarat Chokprakhon, 2008: 59-66. There are 3 parts.

Part 1: Working environment by allowing the respondents to answer questions in the questionnaire. The nature of the questionnaire is a check list of 5 items including lighting, sound, temperature, dust and chemicals.

Part 2: Guidelines for preventing and solving human problems by allowing the respondents to answer questions in the questionnaire. The nature of the questionnaire is a check list of 5 items, which are (1) new employee trainee, (2) safety equipment inspections before working, (3) reminding employees who do not wear safety equipment, (4) giving a warning to employees who do not wear safety equipment and stop work, (5) employees who do not wear safety equipment.

Part 3: Guidelines for preventing and correcting work behavior problems is a question about the frequency of work behavior, the nature of the questionnaire is a rating scale of 5 levels, 6 items.

Creating research tools

The creation of tools for collecting data in this research have proceeded as follows

(1) Study documents, articles and research reports as research on theories, concepts, principle related to individual characteristics

(2) Set the conceptual framework and scope for creating tools in accordance with the objectives.

(3) Use the information obtained from the research to create a questionnaire.

(4) Take a questionnaire to review to improve

(5) Bring the questionnaire to 5 experts to investigate and then analyze the coefficient of Validity by calculating the IOC (Index of Objective Congruence) at 0.50 or higher.

(6) The questionnaire that has been reviewed, modified and improved Used for 30 non-sample trial groups

(7) Take the questionnaire from the experimental group to calculate the validity and reliability of the questionnaire using the method of (Cronbach, 1970) gained confidence at the level.

(8) Publish a complete questionnaire and actually applied to the sample set.

Analysis of data and statistics used

The researcher analyzed the data by using a computer to analyze the data as follows.

1. Analyze the working environment, the nature of the questionnaire as a check list, basic statistics used, namely frequency, percentage

2. Analyze preventive guidelines and solving work behavior problems, the nature of the questionnaire is a rating scale of 5 levels. The basic statistics used are: Arithmetic mean (\bar{X}) and standard deviation (S.D)

By setting the criteria for scoring in a positive message as follows

Regular = 5 points

Often = 4 points

Sometimes = 3 points

Long time = 2 points

Never = 1 vote

For negative messages, points are given in the opposite direction of the positive message.

Never = 5 points

Long time = 4 points

Sometimes = 3 points

Often = 2 points

Regular = 1 vote

Criteria for translating scores of work behavior questionnaires

1.00 - 1.49	means the least
1.50 - 2.49	means less
2.50 - 3.49	means moderate
3.50 - 4.49	means good
4.50 - 5.00	means very good

RESULTS

Working environment, the results are summarized as follows.

(1) Lighting in the workplace is sufficient accounting for 83.10 percent, followed by 15.70 percent and 1.20 percent of the lowest.

(2) The sound of machines that do not affect the workplace accounted for 75.90% and the lowest is 24.10%.

(3) Suitable temperature at work accounted for 53.00 percent and minimal 47.00%.

(4) Dust in the work area accounted for 94.00 percent and minimal 6.00 percent.

(5) Chemical area at work area accounted for 72.30 percent and the lowest, representing 27.70 percent

Guidelines for preventing and solving problems, the results are summarized as follows.

(1) Training for new employees before work accounted for 91.60 percent and the least accounted for 8.40 percent.

(2) There should be surveillance for safety protection equipment before working accounted for 89.20 percent and the least 10.80 percent.

(3) There should be a verbal warning to employees who do not wear safety equipment before working accounted for 91.60 percent and the least accounted for 8.40 percent.

(4) There should be a warning to employees who do not wear safety equipment before working. Accounted for 73.50 percent and the least accounted for 26.50 percent.

(5) There should be a suspension order for employees who do not wear safety equipment before working of 63.90 percent and minimal accounted for 36.10 percent.

Guidelines for preventing and solving employee behavior problems, the results are summarized as follows. Solutions found that the total average of work behavior of employees, the overall behavior was at a moderate level ($\bar{X} = 3.03$, $SD = 0.70$). The highest average score was wearing safety protective equipment at all times ($\bar{X}=4.84$, $SD = 0.48$), followed by tools. The equipment is working correctly according to the type of work ($\bar{X} = 4.82$, $SD = 0.61$). While working there is a discussion with colleagues ($\bar{X}=2.87$, $SD = 0.81$). While working there is a discussion with colleagues ($\bar{X} = 2.37$, $SD = 1.20$) There are bodies that are not ready. Each works like a fever, abdominal pain ($\bar{X} = 2.08$, $S.D. = 0.648$) and the mean score is minimal. Drink alcohol or alcohol before entering work ($\bar{X} = 1.17$, $S.D. = 0.46$)

DISCUSSION

Working environment factors that affect the safety behavior of the employees at the production level showed that the lighting in the workplace was fit. Accounting for 83.10 percent, sounds at normal work 75.90 percent of the temperature in the normal workplace accounted for 53.00 percent of dust in the workplace, with 94.0 percent dust in the workplace with chemicals accounted for 72.30 percent. An inappropriate working environment is one of the causes of work accidents. Environmental defects in operation according to studies, it has been found that employees are safe to work. In the medium level, with an average of 3.06, standard deviation of 0.44 and when considering each item, it was found that work safety has contributed to increasing productivity and morale including the company's reputation, with an average of 3.90. The standard deviation of 0.69 came to # 1, followed by the company having checks. Lighting system is sufficient for the operation, with an average of 3.68, standard deviation of 0.69 and within the factory there is not enough ventilation system, feeling uncomfortable when working is the last, with an average of 2.31, standard deviation of 0.86, consistent with Inkaew (2005), which corresponds to Charmprakhon (2008), which studied factors affecting work safety

behaviors of operational staff, production department of Bangkok Glass Company Limited effect on work safety behavior, guidelines for preventing and solving human problems by frequency analysis and the percentage of training for new employees with new staff training that respondents respond most 91.60 percent of the inspection of the safety protection equipment before the operation had to check the safety protection device before performing the work that the respondents answered the most. 89.20% of the respondents spoke verbally to employees who did not wear safety equipment before entering the workplace. There was a verbal warning to employees who did not wear safety protection equipment before working at the respondents. 91.60 percent, giving warning to employees who do not wear safety protection equipment before entering the workplace, giving a warning to employees who do not wear safety protection equipment before performing work that respondents respond most accounted for 73.50 percent and the suspension of work for employees who do not wear safety protection equipment before entering the workplace. 63.90% of the employees do not wear protective equipment for working safety that is not suitable as one of the causes of work accidents (Srimarut, 2014). If the employee does not wear the correct protective equipment, and there is no suitable environment control system. Employees are more likely to be harmed by the work environment. Therefore, occupational health is very important to employees. In order to protect the health of employees to be safe and secure Production of Bangkok Glass Co., Ltd. found that the work environment factors affect work safety behaviors (1) Employee perception of management Industrial safety is high with the most awareness of safety protection, followed by awareness of safety surveys (2) safety management factors. The survey factor on safety and safety protection factors is related to the perception of the safety management of the employees of the plastic factory in Nakhon Ratchasima province, (3) Safety management factors have an influence on Recognize the safety management of the plastic factory employees in Nakhon Ratchasima province with statistical significance at the level 0.05 and able to explain the perception of safety management of employees in the plastic industry in the overall picture by 1.94 percent, (4) The attitudes of the executives on safety management have an influence on the safety management of safety officers by explaining Overall safety management factor 36.90 Modify unsafe conditions by eliminating dangerous situations or changing work procedures that are at risk such as installing a card to prevent danger from moving parts of the machine close, cover the point of shock or precarious repair defective parts do not block the fence, prevent and solve problems in the work behavior of employees at the operational level, the production department has overall working behavior at a moderate level ($\bar{X}=3.03$), the lowest average working behavior is drinking alcohol or alcohol before entering work has a value ($\bar{X}=1.49$) corresponding to the research of Phongchirathipa (2004) that studies the factors that affect the safety of the company Rohm and Harsh Chemical Thailand Co., Ltd. found that working behavior affects work safety, and in accordance with Pensuwan's concept (2520: 10) that has given the meaning of behavior that means all activities that humans do, whether or not they can be observed, such as the work of the heart, muscle function walking, speaking, thinking, feeling, liking, interest, direct to Srimarut (2012: 68), where the working environment affecting work safety behavior lighting and sound at work were too bright and loud, the temperature is very hot, the dust has the most chemicals (Wittaya Mekham: 2014). Other suggestions: (1) require to have more safety training in the workplace and create awareness for employees to be safe in the workplace, (2) require the company to see the safety of the employees more than they are by arranging safety equipment to be suitable for the work performed, (3) require that everyone comply strictly with the rules of wearing safety equipment in the work not only the operational level only, (4) require to increase the lighting at the inspection point in front of the machine, (5) require to add more fans because the temperature in the workplace is very hot, which corresponds to the 3E principle for accident prevention in order to enhance the safety of industrial plants effectively, the use of 3 E principles must be both academic engineering. Providing training to workers and issuing rules and regulations to be implemented appropriately in the production and factory management processes. Therefore, it will be the most effective measure to prevent incidence and enhancing safety in the factory within a short time and avoid wrong actions or is dangerous, the 3E principle must be carried out simultaneously. Therefore, to prevent accidents and enhance safety in the factory with the highest efficiency. Therefore, the use of 3E principles by applying both academic engineering (basic data sources as a guide to prevent accidents caused by work Department of Safety Engineering (Special Department), Kasetsart University http://wp4.moneyboxz.com/?page_id=473), which is the best and most desirable of Jarukmul (2015: Abstract), Plan preparation: 2057, 2560 work environment and facilities soil work and foundation work and system work and decoration. There is a working environment through equal standards 62.50 percent prevention and staff health continue to organize training Teach jobs to workers on a regular basis and as necessary as well as motivating and

enhancing safety in working with various methods such as sticking posters or slogans organize a safety contest. The key to working is to help create safety in the workplace by means of passive or prevention that does not occur, such as training to provide proper knowledge and understanding before going to work, monitoring and evaluating work behavior of employees and the workplace environment and by means of protection (Active or Protection), including the use of external devices to protect organs conceal products and cover the machinery needed for operation In order to make it lighter to create safety in working effectively.

SUGGESTION

Recommendations of the researcher

1. The company should provide training for employees by encouraging continuous training from training to new employees, old employees but with new jobs, new machinery is introduced into the production line annual training to review in each training session, in addition to allowing employees to know the correct working methods and regulations of the factory, where there must be a presentation to inform the employee of the damage caused by the accident and point out that the accident is not a matter of fate can be prevented by emphasizing that all employees can prevent their accidents and others.

2. Employees should be aware of the seriousness of chemical hazards, recognize the benefits of conducting themselves in the prevention of hazards, awareness of operations to protect themselves from hazardous chemicals and work accidents that will causing a risk of work.

3. Create guidelines for creating awareness for employees, participatory management can be done at various levels and in many ways, some of which can be done easily, easily. Employees must therefore develop knowledge and understanding in providing accurate information to employees to listen to opinions, open opportunities for employees to participate in Develop concurrently with

4. There is a major obstacle that makes the security management strategy in the factory requested: lack of communication, various broadcasts and each training session. Employees still lack motivation, interested in training.

5. Caused by the negligence of workers especially those who have experience or expertise will have a lot of confidence in his skill and skill and often refuse to work with machinery with dangerous protective equipment or to wear protective clothing. They will avoid and choose the risk of using the device by removing the protective device

Recommendations of the next researcher

1. From the research work, the system should be clearly designed, proceed and processed for safety training in the factory so that employees can perform the steps correctly. Complex procedures are complicated for quick ordering and worthwhile.

2. To study the factors for correcting, improving the defects and determining the correct and appropriate practices in order to prevent accidents and increase productivity in the body, it is the duty and responsibility of the supervisor.

3. Should study other factors which will result in accidents within the factory such as emotional conditions working environment, income, status, factors that cause frequent accidents.

4. Study of occupational health management methods safety and working environment
To study other variables that affect risk behavior in the work of workers such as motivation job satisfaction, social environmental factors such as beliefs, values.

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