

SAFETY BEHAVIORS OF EMPLOYEES IN MANUFACTURING OPERATIONS

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ABSTRACT

This research the purpose of this study was to investigate the factors affecting employee safety behavior in the work environment and preventive and corrective measures. The questionnaire was divided into 3 parts: 1) working environment, 2) The questionnaire was used as a checklist, 3) The questionnaire was a rating scale.

The results of this research were 83 respondents in working environment. The results are as follows: (1) the lighting in the workplace is 83.10%; (2) the noise level in the workplace is 75.90%, (3) the optimum temperature in the workplace. 53.00%, (4) dust in the workplace is 94.00%, (5) chemical substance in the workplace is 72.30%.

Preventive and Problem Solving: The findings are as follows: (1) Training should be provided to new employees at 91.60%, (2) Safety equipment should be monitored before work. 89.20, (3) There should be a verbal warning to employees who do not wear protective equipment before work, of 91.60%, (4) A warning should be provided to employees who do not wear protective equipment. The purpose of safety first performance was 73.50 percent, (5) there should be a break for employees who do not wear protective equipment, safety first performance was 63.90 percent.

Preventing and resolving problems in employee behavior, the results are as follows.

The results showed that: The mean of total working behavior of the employees was moderate, $\bar{x} = 3.03$, the highest mean score was wearing protective equipment while performing the job $X = 4.84$, followed by the use of the correct tool for job type $\bar{x} = 4.82$, while discussing with colleagues $\bar{x} = 2.87$, while talking. Title before joining $\bar{x} = 2.37$, with a body that is ready to run $\bar{x} = 2.08$, and the mean score is minimal or drinking alcohol before going to work $\bar{x} = 1.17$.

Keywords: *Safety behavior, employee behavior, production operation level*

INTRODUCTION

Safety is unstoppable, but in practice, it is difficult to eliminate all kinds of disasters. The danger that may occur while operating. Accidents are unplanned events that result in injury, disability, or death and damage to property, resulting in the delay in work. Accident prevention is not 100% controllable but can reduce accidents. The cause of the accident may be due to the following: 1. An accident caused by the person operating the business, 2. Accidents caused by machinery and equipment used in the work, 3. Accidents caused by the working environment, the organization or factory where the person is working. Industrial enterprises in Thailand have developed continuous production technology. With this rapidly evolving production system, it is a direct consequence of workers' casualties and property damage due to inadvertent factory accidents. Accidents are part of the problem because of human defects. The perception of hazardous conditions in an employee's work is one way to lead-safe work behaviour to prevent loss. Directly and indirectly raise the factory or business establishment to manage the safety. Occupational health and the

environment in working well in accordance with international law and standards, which will lead to the correction and prevention of workplace hazards in a concrete way.

Since Thailand has evolved from an industrialized agricultural structure, it has resulted in greater economic growth in the industrial sector in order to be able to deliver the labor force's performance, knowledge, ability to work properly in accordance with the standards of work. A dangerous substance that is dangerous to health is one of the causes of illness, illness, loss of life, or death. Therefore, for the safety of the worker, any worker should change his or her work behavior to ensure the safety of the work (Thechatiwat, 2012). We must have a good food safety and safety management system with clear and concrete policies. Employees must pay attention to the safety and security of their employees in the workplace, their supervisors, and the management of the people in the developmental compound in order to gain a better understanding and a better sense of security. Professionalism plays a very important role in the security of the organization itself, taking care of the five security systems that remain. Therefore, if safety personnel behave (Thangsuwan, 2012), factory managers focus on the production process rather than the safety, occupational health and environmental management of the plant. No SHE development policy has been formulated, nor is there a need to cultivate attitudes and promote SHE management for employees. Employers and employees are still lacking in knowledge of the laws and regulations related to SHE. The factory provided the employer with the regulations but lacked real knowledge. People living nearby, factories lack knowledge and awareness about the pollution effects of the plant. Providing legal knowledge and safety measures to employers, employees and the public is important.

As the industry grows in various parts of the world including Thailand. Industrial accidents seem to grow as well. We have to lose money because of the accident several tens million baht. Many things are lost due to accidents, both measurable and measurable. It is imperative that all parties involved in the industry work together to eliminate and prevent accidents. The results obtained from safe work practices are based on the safety principle when there is no accident in work and also produces good results. Make the atmosphere feel safe. Employees feel good about their work, do not worry about accidents can work full-time, physically and mentally when employees feel safe working, they will have the morale of their workforce, reduce production costs when work is safe, the damage will be done with the production will be less. High performance Reduce the cost of medical treatment, reduce accidental damage, increase profitability and safety when reducing accidents. Making the plant more profitable, using human resources in a cost-effective manner. Each staff member has the expertise to take the time to practice when an accident occurs, typically, supervisors and administrators are often interested in the case of serious injury to the type requiring hospitalization and overlook the causes of small accidents, especially since the "negligence" because it is not important. And it is a personal matter that workers need to fix themselves. But rightly so, the supervisor should pay attention to every accident no matter how little or no injury, we should investigate immediately after the accident or as soon as possible delays often result in forgetting important details every concerned person should be interviewed or clarified. We should not blame it during the interview. It will make the workers scared or weary to give details.

For that reason, therefore, when the employee accident occurs, the human resources will be wasted and the result of the accident will be ineffective when an accident occurs damage received direct damage includes loss of property, such as medical expenses, compensation for damage caused by property damage to property broken machine. In addition, the loss of life of employees indirect losses such as loss of time, work stoppage, reduced productivity, lack of confidence in the workforce, or a lack of work done to spoil the reputation of the factory.

OBJECTIVES

To study safety behavior in workplace production staff and preventive measures.

METHODOLOGY

This research The research instrument was a questionnaire, divided into the following topics:

3.1.1 The population of this study was 95 employees.

3.1.2. Bring the population of The sample was compared with the tables of Craig and Morgan (Krejcie & Morgan, cited in Suwimol, 2003: 46-48). The sample consisted of 83 employees. The sampling group consisted of 83 employees sampled by 83 employees.

Research Scope

Space boundary Employee Information Officer in Pluak Daeng District, Rayong

The content of the study was introduced by Inkaew (Inkaew, 2005) as a guideline.

1) Safety behavior in working environment: working environment

2) Accidents at work are: (1) preventive measures (2) preventive measures and solve behavioral problems in work.

The time duration of the studying and collecting data was 9 months.

Research Tools

The questionnaire was used for questionnaire survey and questionnaire. The questionnaire was divided into 3 parts.

The tool used to collect the data was a questionnaire. The concept of N Champrakaoan (Champrakaoan , 2008: 59-66) has three parts.

Part 1: Working environment: The respondents answered the questions in the questionnaire. The questionnaire was a checklist of five items: light, sound, temperature, dust and chemicals.

Part 2: Prevention and Problem Solving: The respondents answered the questions in the questionnaire. The questionnaire consisted of 5 check lists, training of new employees, inspection of safety equipment before work, warning of employees not wearing safety equipment, giving warning to employees who did not wear the equipment security and to order employees to stop wearing safety equipment.

Part 3: Prevention and Problem Solving Behavior in Work: A questionnaire on the frequency of work behavior. The questionnaire was a 5-level rating scale.

The instrument used to collect data in this research has done the following:

1) Study papers, articles and research reports are researches on theories, concepts, principles related to the characteristics of individuals.

2) Define the conceptual framework and scope for creating the tool in accordance with the objectives.

3) The information obtained from the study was created as a questionnaire.

4) The questionnaire was revised to improve.

5) Take the questionnaire to 5 experts and then analyze the validity coefficient (Validity) with IOC (Index of Objective Congruence) at 0.50.

6) Take the revised questionnaire. The sample was used for 30 non-experimental groups.

7) Take the questionnaire from the experimental group to calculate the reliability. The reliability of the questionnaire (Cronbach, 1970).

8) Complete the questionnaire. Then applied to the sample set.

Data Analysis and Statistics

The data were analyzed by using computer for data analysis.

1. Analyze the working environment The characteristics of the questionnaire are check list. The basic statistics used are frequency, percentage,

2. Analysis of preventive measures and solve behavioral problems in work. The questionnaire was a 5-scale rating scale, Arithmetic mean (\bar{x}) and standard deviation (S.D)

The criteria for scoring positive messages are as follows.

Regular = 5 points

Frequently = 4 points

Sometimes = 3 points

Once in a while = 2 points

Never = 1 points

Negative messages will vote in the opposite direction to the positive message:

Never = 5 points

Once in a while = 4 points

Sometimes = 3 points

Frequently = 2 points

Regular = 1 point

Criteria for translating scores of behavioral questionnaires.

1.00 - 1.49: Minimal

1.50 - 2.49: Less

2.50 - 3.49: Moderate

3.50 - 4.49: Good

4.50 - 5.00: Very good

CONCLUSION

Work environment, the results are as follows.

1) The lighting in the workplace is sufficient. 83.10% followed by 15.70% and the lowest was 1.20%.

2) Noise of the machine in the workplace. 75.90%, and the lowest is 24.10%.

3) The right temperature at work. 53.00% and lowest 47.00%.

4) dust in the work area 94.00% and lowest of 6.00%.

5) Workplace chemicals The percentage was 72.30% and the lowest was 27.70%.

Prevention and problem solving have concluded as follows.

1) Training of new employees should be done at 91.60% and lowest at 8.40%.

2) Patient safety should be monitored at 89.20% and lowest at 10.80%.

3) There should be verbal warnings to employees who do not wear protective equipment before work, 91.60 percent and the lowest rate is 8.40 percent.

4) It should be provided to employees who do not wear protective equipment before work. 73.50% and lowest were 26.50%.

5) There should be a strike order for employees who do not wear protective equipment before work. 63.90 and the smallest 36.10 percent.

Preventing and resolving problems in employee behavior, the results are as follows.

Corrective measures found that the overall average of employee behavior. The mean score was the highest (mean = 3.04, S.D. = 0.48). The highest mean score was wearing protective equipment during work (\bar{x} = 4.84, SD = 0.48). (\bar{x} = 4.82, SD = 0.61), while discussing with colleagues (\bar{x} = 2.87, S.D. = 0.81). (\bar{x} = 2.37, S.D. = 1.20). There was no body at all. Each works like a common cold, abdominal pain (= 2.08, S.D. = 0.648), and with the average minimum alcohol or alcohol before going to work (\bar{x} = 1.17, S.D. = 0.46).

DISCUSSION

The working environment factors that affect the safety behavior of the production staff illumination in the workplace was 83.10%. The working temperature is usually 53.00%. Dust accounted for 94.0% in the

workplace, 72.30% in the workplace, poor working environment, one cause of work accident, environmental defects in work. The study found that employees are safe in their work. The mean score was 3.06, and the standard deviation was 0.44. Safety in work has contributed to productivity and morale, and the company's reputation has averaged 3.90, with a standard deviation of 0.69, ranked first. The lighting system was adequate for operation, with an average of 3.68, standard deviation 0.69, and within the factory, there was no adequate ventilation. At the end of the work, the mean was 2.31, standard deviation 0.86 corresponds to Innkaew (Inkaew, 2005), which corresponds to Charmprakoan (Charmprakoan, 2008). The factors affecting the safety behavior of working-class employees of Bangkok Glass Company Limited The work environment factors affect workplace safety behaviors, preventive and corrective measures, personal problems by frequency and percentage analysis, and training of new employees. Surveillance of safety equipment before work is monitored safety equipment before operating. Tasks that most respondents answered. Verbal warnings to employees who do not wear safety precautions are given verbal warnings to employees who do not wear protective equipment before work. the best Providing warnings to employees who do not wear safety equipment prior to entering the workplace is a warning to employees who do not wear protective equipment before the work is answered by the respondents. 73.50%, and stopping work for employees who did not wear protective equipment before work. The respondents answered the most. Employees do not wear inappropriate safety equipment to cause an accident. (Srimarut, 2557) If employees do not wear proper safety gear and do not have a control system Suitable environment Employees are more likely to be harmed by the working environment, so occupational health is very important to the worker. (Teskateuk, 2006: 1-2), which is consistent with Charprakoan (Charmprakoan, 2008), which investigated the factors affecting occupational safety behaviors of Bangkok Glass Company Ltd production staff was found that the working environment factors influenced the safety behavior.

Work performance: 1) Employee perception of industrial safety management was high. The most perceived safety protection was followed by safety awareness, 2) safety management Safety factor and safety factor were the factors related to safety management perception of employees in plastic industry in Nakhon Ratchasima, 3) Safety management factors influenced perceived safety management of employees in the plastic industry in Nakhon Ratchasima at 0.05 and 1.94 percent, respectively, 4) The attitude of management in safety management had an influence on safety management of safety officers. Describe the overall safety management factor 36.90 Improve unsafe conditions by eliminating hazardous conditions or altering dangerous work procedures, such as installing a mechanical hazard protection card, repair of defective parts, fence blocking, prevention and resolution of behavior problems in the workplace of the employees of the production operation department have the overall working behavior at a moderate level = 3.03). The smallest working behavior was alcohol or alcohol prior to admission (1.49) of Pongjirathipa (Pongjirathipa, 2004). Factors affecting the safety behavior of the Rohm & Harbors Thailand Co., Ltd, behavior in work affects safety in work and consistent with the Suwan concept (Suwan, 2520: 10), which provides the definition of behavior, it refers to all kinds of activities that human beings do, whether they are observable or not, such as the work of the heart, the work of the muscles, walking, talking, thinking, feeling, interest, match Srimarut (Srimarut, 2012: 68).

Work environment that affects safety behavior in workplace lighting, noise, extreme heat, dust, most chemicals (Mekhum: 2557), 1) Required more safety training in the workplace, 2) to make the company more aware of the safety of its employees than it is to provide them with the equipment they need safety to suit the job, 3) To ensure that everyone complies with the safety regulations not only operational staff, 4) Required to add light to the workpiece checkpoints, 5) Required to add more fans because the temperature in the workplace is very hot, which corresponds to the 3E principle. In order to enhance the safety of industrial plants efficiently, the use of 3 E requires both engineering training to workers and to rule regulations in the production and management of plants are the most effective measures to prevent accident and strengthen the plant safety within a short time, and avoid wrong action or is the main danger, 3E must be carried out

simultaneously. The use of 3E by both engineering and engineering (a basic source for prevention of work-related accidents) , Department of Security Engineering, Kasetsart University http://wp4.moneyboxz.com/?page_id=473), and the most desirable (2558: Abstracts). Organizations should undertake risk assessments for planning: 2557, 2560. Environment work and facilities, soil and foundations, and systems and decorations have the same standard work environment 62.50 percent, teaches workers on a regular basis and as needed. Encourage and enhance the safety of the work in various ways, such as posters or slogans safety contest. The key to the work is to help protect the workplace by preventing (Passive or Prevention) not to occur, training to provide accurate knowledge before entering the work, monitoring performance evaluation of employees and the workplace environment, and by means of protection (Active or Protection), including the removal of external devices to protect the organs covering products and covering protects the machines that are needed to perform the task to reduce the burden to ensure the safety of the work effectively.

SUGGESTIONS

5.3.1 Researcher's recommendation

5.3.1.1 The company should provide training to employees. Encourages continuous training. From training to new employees, old employees, but there are new jobs. New machines are introduced into the production line annual training to review In each training session, in addition to the staff know the correct way and rules of the factory must be presented to employees to know the damage caused by the accident and pointed out that the accident is not a matter of fate preventable it emphasizes that all employees can prevent their accidents and others.

5.3.1.2 Employees should be aware of the hazards of chemical hazards, recognize the benefits of their practice, prevent hazards, recognize their own work practices, protect themselves from hazardous chemicals and work-related accidents from the risk of work.

5.3.1.3 Create awareness for employees. Participatory management can be done in many different ways and in a number of ways, some of which can be easily done, but it takes time depending on the needs of the participant. Employees must develop knowledge and understanding to provide accurate information to the employee's skill concurrent development.

5.3.1.4 There are significant barriers to the safety management strategy in the plant, ie lack of communication, communication and training.

5.3.1.5 Caused by the negligence of the workers. Especially experienced workers or skilled workers. I have confidence in their workmanship and excellence. They often refuse to work with machines that have the dangerous protective gear or wear protective gear. Avoid and choose the risk of using the machine. Remove the protective gear.

5.3.2 Recommendations of the next researcher.

5.3.2.1 The research should design a system of procedures and procedures for factory safety training so that staff can perform the procedures correctly, complicated procedures for quick ordering, and Value for money.

5.3.2.2. To study factors for correcting defects and to set appropriate guidelines. To prevent accidents and increase efficiency in production, it is the duty and responsibility of the supervisor.

5.3.2.3 Other factors should be investigated. This will cause accidents in the factory, such as emotional state. Working environment, income, status, factors causing frequent accidents.

5.3.2.4 Study of occupational health management methods safety and the environment in work. The effects on workplace risk behaviors such as motivation, job satisfaction, social environment factors such as beliefs, values.

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