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# A Study and Survey of Health and Safety Measures with the Employees of JSW Steel Private Limited

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**ABSTRACT:** Construction industry has accomplished extensive growth worldwide particularly in past few decades. In this paper, direct interact with employees about the health and safety measures. Construction industry employee's skilled and unskilled laborers' subject to construction site accidents and health risks. Even though daily some of the minor accidents are occur due to the lack of attention of workers at working time. This paper mainly focused into the health and safety measures in JSW STEEL PRIVATE LIMITED. Also discusses in the total working hours, work shifts, number of accidents, type of injuries etc

**KEYWORDS:** Working hours, Work shifts, Total number of accidents, type of injuries.

## I. INTRODUCTION

Due to rapid industrialization, industrial workers are exposed to several types of hazards and accidents. Every year lakhs of workers are injured due to mechanical, chemical, electrical and radiation hazards and it leads to partial or total disablement. So in recent years, greater attention is given to health and safety due to pressure from government, trade unions, labour laws and awareness of employers.

The efficiency of workers depends to a great extends on the environment in which the work. Work environment consists of all the factors, which act and react on the body and mind of an employee. The primary aim is to create an environment, which ensures the greatest ease of work and removes all causes of worries.

Occupational health and safety is a discipline with a broad scope involving many specialized fields. In its broadest sense.

It should aim at:

The promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations.

The prevention among workers of adverse effects on health caused by their working conditions.

The protection of workers in their employment from risks resulting from factors adverse to health.

The placing and maintenance of workers in an occupational environment adapted to physical and mental needs. The adaptation of work to humans.

Successful occupational health and safety practice requires the collaboration and participation of both employers and workers in health and safety programmes, and involves the

Consideration of issues relating to occupational medicine, industrial hygiene, toxicology, education, engineering safety, ergonomics, psychology, etc. Occupational health issues are often given less attention than occupational safety issues because the former are generally more difficult to confront. However, when health is addressed, so is safety, because a healthy workplace is by definition also a safe workplace. The converse, though, may not be true - a so-called safe workplace is not necessarily also a healthy workplace. The important point is that issues of both health and safety must be addressed in every workplace.

Work plays a central role in people's lives, since most workers spend at least eight hours a day in the workplace, whether it is on a plantation, in an office, factory, etc.

Therefore, work environments should be safe and healthy. Unfortunately some employers assume little responsibility for the protection of workers' health and safety. In fact, some employers do not even know that they have the moral and often legal responsibility to protect workers.



Figure 1.1 Health Safety and Environment

### 1.2 IMPORTANCE OF MANAGEMENT COMMITMENT ON HEALTH & SAFETY:

In order to develop a successful health and safety programme, it is essential that there be strong management commitment and strong worker participation in the effort to create and maintain a safe and healthy workplace. An effective management addresses all work-related hazards, not only those covered by government standards.

All levels of management must make health and safety a priority. They must communicate this by going out into the worksite to talk with workers about their concerns and to observe work procedures and equipment. In each workplace, the lines of responsibility from top to bottom need to be clear, and workers should know who is responsible for different health and safety issues.

### 1.3 HEALTH AND SAFETY PROGRAMME:

Effective workplace health and safety programs can help to save the lives of workers by reducing hazards and their consequences. Health and safety programs also have positive effects on both worker morale and productivity, which are important benefits. At the same time, effective programs can save employers a great deal of money. For all of the reasons given below, it is crucial that employers, workers and unions are committed to health and safety.

- Workplace hazards are controlled - at the source whenever possible.
- Records of any exposure are maintained for many years.
- Both workers and employers are informed about health and safety risks in the workplace.
- There is an active and effective health and safety committee that includes both workers and management
- Worker health and safety efforts are ongoing.

Construction industry, often termed as 'high-risk', has a significant impact on the health and safety of the workers. Though it is common to see a construction worker work at heights with equipment and building materials, these scenarios are plagued by potentially dangerous situations and poor working conditions.

The main provisions of these Regulations require employers to provide: adequate lighting, heating, ventilation and workspace (and keep them in a clean condition); staff facilities, including toilets, washing facilities and refreshment; and. safe passageways, i.e. to prevent slipping and tripping hazards.

## II. RELATED WORKS

### 2.1 Surprising Incentive An Instrument for Promoting Safety Performance of Construction Employees

A large number of activities carried out by management and safety practitioners at workplaces (e.g., safety training, safety communication, safety rules and procedures, incentive) are intended to improve the safety performance of employees. According to Griffin and Neal, safety performance refers to the personal behavior of employees by which their own safety and their co-workers safety would be promoted. Safety performance has two aspects, namely, safety compliance [e.g., using personal protective equipment (PPE), following safety procedures and rules] and safety participation (e.g., voluntarily participating in safety-related activities such as safety meetings). A high volume of studies had proven the positive impact of motivation and employees knowledge on safety performance. In the same study indicated that knowledge, skill, and motivation are parameters that can directly influence safety performance. In another study, Neal et al found that safety knowledge and safety motivation partly mediated the effects of safety climate on safety performance. I also demonstrated that safety knowledge and safety motivation are two main factors mediating the effects of management practices on safety.

Performance According to aforementioned studies, one of the most important pre-conditions for enhancing employee's safety performance is motivating them with a granted and proper incentive.

## 2.2 Critical Success Factors for Safety Program Implementation among Construction Companies in all Jindal Groups

In All Jindal groups, construction activities have increased rapidly during the past two decades, attracting construction companies from all over the world to participate in many development projects, with the employment rate in the Saudi construction sector accounting for 15% of the country's total workforce. Despite this, construction safety in Saudi Arabia has not been regulated by any government agency. A recent study on safety among many construction projects across Saudi Arabia shows that: 25% of contractors did not give new workers a safety orientation; 25% did not provide personal protective equipment; 25% did not provide first-aid on site and 38% had no trained safety personnel, which led to the conclusion that the concept of safety does not quite exist among construction contractors in Saudi Arabia. In fact, many construction companies in Saudi Arabia have tried to control the rising costs of accidents and reduce projects delays due to the accidents; however, they do not know why the safety programs do not work efficiently or where to start. The above situation suggested the need for the present study, which was aimed to identify the most critical factors affecting the implementation of safety programs among the construction companies in Saudi Arabia. Outcomes from this study provided a set of critical factors that can be used to guide a successful construction safety program implementation as well as safety policy development in the construction industry in Saudi Arabia.

## 2.3 Application of the Concept "People-oriented" to improve the working team safety construction

Accident-causing theory is used to research the causes, process and consequences of accidents. The 4M theory is the theory summed up accident chain reaction theories, and is widely applied, which attributes accident to the Man factor", Machine factor", Media factor" and Management factor". For working team, foreman and worker is the main subject of the Man factor", and the Machine factors" include equipment, control system, structure, method of operation, „Media factors" are the team's production process in working environment, technology environment, and Management factors" are mainly embodied in the safety culture, safety management assessment and so on. Handling relation between safety and production correctly is the prerequisite for team safety construction, furthermore, it should be also critical by giving a reasonably production indicator, and formulating a scientific safety objective. Meanwhile, safety construction system has been one key factor for development of enterprise. This paper discusses that working team safety construction should highlight „people-oriented" concept and master Man factors, and, this paper also points out team works should play full role of responsibility system, and establish incentive mechanism, meanwhile, strengthening safety skills, training and education, constructing a reasonable incentive mechanism, combining Man factor" and Media", Machine", Management" factors, would be good measures to promote the enterprise safety construction effectively.

## 2.4 Evaluation of the Quality of Occupational Health and Safety Management Systems Based on Key Performance Indicators in Certified Organizations

Despite major advances in occupational health and safety (OHS), which have led to measures that aim to prevent injuries and illness in the working environment, challenges persist in many organization. Risks endanger the workforce, equipment, the working environment, and impact the competitiveness and economic performance of both industries and communities. Occupational accidents and diseases have profound adverse consequences; workers are injured, equipment is destroyed, the quantity and quality of production falls, there are economic losses due to early retirement and staff absence, all of which adversely affect the organizations reputation and competitiveness. According to statistics, such incidents result in nearly 2.3 million deaths every year and incur costs over 2.8 trillion dollars globally. These findings clearly show that occupational accidents and diseases are a major concern and must be properly managed. his study assessed the effectiveness of OHSMSs in improving OHS conditions. The results revealed that the safety performance of OHSAS 18001-certified companies is better than that of non- certified companies. Therefore, it can be concluded that OHSMSs improve OHS conditions and support healthy and safe workplaces. However, establishing and implementing an OHSMS is only the first step in the structured management of health and safety systems in the working environment. To consolidate their role, and increase their acceptance by employees and other beneficiaries, their performance must be assessed using appropriate indicators.

## III. PROPOSED SYSTEM

In the proposed system, this study was given an overview of the health and safety measures existing at Teemage Builders Private Limited. Since health and safety are two important elements essential for improving the productivity of an organization, a study on the existing health and safety measures would help the organization to



perform better. This study was highlight on the perception of the workers regarding health and safety. Teemage Builders Private Limited can identify the areas where it can be improved, so as to improve the performance of the workers. This study would also help to analyze the satisfaction level of the workers towards health and safety measures and suggest provisions to improve health and safety.

#### IV. METHODOLOGY

##### 4.1 Identifying Hazards in the Workplace

Working at height without safety harness. Operating a crane or hydra by unauthorized person. Lifting and pushing. Eg. Handling heavy or awkward shaped objects. Noise from machinery such as drillers, mixers etc...Slips, trips, falls. Standing under the suspended load. Lifting the precast material with knotted chains. Some of the employees are not wearing any PPE"s at all time. Machines are running without guarding.

##### 4.2 ANALYSIS

First of all analyze the protocols of the company and go through the old records. Studied the document which is followed by the safety department. In this analysis, Most of the accidents are occurred by the human error and lack of attention. The companies provide all type of safety requirements, but workers are not willing to use these facilities. Sometimes, those who are not obey the safety rules while working they are punished under the safety violation (penalty to the workers). More than 50 first aid cases are recorded in a month. Occurrences of major accidents are very rare but sometimes the minor accidents are chance to happen.

##### 4.3 DATA COLLECTION

Data's are collected at each and every department. It takes several days to complete the process. In a factory, all employees are kindly cooperating with my questionnaires'. Using of several questionnaires it is very helpful to collect the data's for my project.

##### 4.4 RATIONALE OF THIS STUDY

When it comes to performance, employee's performance is one the main in organizational success. Therefore, it is a need of the hour where organizational has to make very specific efforts for Health & Safety Measures to improving employee's performance to optimally utilize knowledge and skills of their employees. The proposed research study also would report on employees feedback as well as expectations & experiences with regard to Health & Safety, It also list out suggestions for an overall improvement in Health & Safety. The research study would make an attempt to find the impact of Health & Safety on effective employee's performance.

#### V. EXPERIMENTAL RESULTS

Only 20% of the respondents respond that they are not aware of the health and safety measures and 80% of the respondents are aware of the health and safety measures. Only 40% of the respondents say that they have no effective arrangements communicating health and safety matters; 60% agreed that they have effect arrangements for communicating health and safety matters. Majority of the respondents are told that company is providing medical facility to workers. 70% of the respondents respond that they attended the health and safety train programme but 30% of the respondents says that they are not attended any health safety training programme conducted in the company.

Most of the respondents respond that always they have proper drinking water. Some of the respondents says sometimes they have proper drinking water and very few the respondents say that rarely they have proper drinking water. 77% of the respondents strongly agree that they are aware about the first aid activity and contents of the first aid kit and 23% of the respondents simply agree that they aware about the first aid activities and contents of the first aid kit. Majority of the respondents strongly agree that the company implements effective disciplinary procedures and few of the respondents simply agree that the comp implements effective disciplinary procedures. 55% of the respondents strongly agree that their environment is safe to work 23%% of the respondents simply agree that their environment is safe to work and 22% of the respondents say that they have no idea about the safe working environment. Majority of the respondents says always they are maintaining the machines properly. Some of the respondents respond that sometimes they are maintaining the machines properly and only very few of the respondents says rarely they are maintaining machines properly.

48% of the respondents say often the accidents are happened and 17% of respondents say rarely the accidents are happened and 28% of the respondents respond that sometimes the accidents are happened and only 7% of the respondents say that always accidents are happened. 87% of the respondents say that they are simply satisfied with the health and safety measures and 13% of the respondents say that they have no idea about the satisfaction level from health and safety measures. 55% of the respondents say that the role of management is better and 18% of the respondents say that the role of management is best and 27% of the respondents respond that the role of management in implementing health and safety is good.

### 5.1 Recommendations / Suggestions:

The company has to create the awareness for the workers regarding health and safety. They have to provide effective arrangements to the workers for communicating their health and safety matters. It is better to provide frequent health and safety training, at least once in a year. The company has to provide enough drinking water facility available at all the time. The management has to take necessary steps to reduce the stress level of the workers. Orientation programs can be conducted to make the workers to feel that their work environment is safe to work. The maintenance department has to maintain the machines properly to reduce lead-time. Proper training has to be given to the workers to avoid frequent accidents. Meditation practices can be given to avoid electric shocks, finger injuries etc. due to lack of concentration. Safety committee has to be formed to monitor the health and safety issues. The company has to conduct the regular inspections to ensure higher level of safety in the workplace. Cordial relationship has to be maintained between the management and the workers to implement the health and safety policies and measures in a smooth manner.

## VI. CONCLUSION

It is revealed from the study that, the health and safety measures adopted in JSW Steel Pvt. Ltd. are provided to the workers according to the provisions of the factories Act. It reveals that the awareness of the workers about health and safety in the workplace is inadequate. Also repeated accidents like electric shocks, finger injuries are occurred in the workplace. Suitable ideas were suggested to avoid those accidents and to improve the health and safety measures. The role of management in implementing health and safety in the organization is very effective. Most of the workers were satisfied with the health and safety measures adopted in the company. If the company implements effective disciplinary procedures, it will help the company to go with their policies and also to maintain health and safety in the organization.

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