

# A Study on Industrial Health and Safety Management at LG Electronics India Pvt. Ltd, Ranjangaon, Pune

Viswaranjan Somanath<sup>1</sup>, More Jyoti Jagannath<sup>2</sup>

Postgraduate Department of Environmental Management  
Chhatrapati Shahu Institute of Business Education and Research (CSIBER)  
(An Autonomous Institute recognized by Shivaji University, U.G.C. & A.I.C.T.E.), KOLHAPUR - 416 004, Maharashtra

**Abstract:** *The investigation carried out in the LG Electronics India Pvt. Ltd, Ranjangaon, Pune, India, revealed that the management conducts yearly health check-up programme for all employees, all the employees are aware about the safety programme conducted by organisation, all employees use suitable personal protective equipments provided by company, hand injuries are the common injury in the organization, Majority of injuries occurred in the fettling work place, compensation to the injured workers according to Workmen Compensation Act, use of Personal Protective Equipments must be made compulsory, First-aid facilities should be increased and there must be proper coordination and cooperation between workers and supervisor to prevent the accidents.*

**Keywords:** Industrial Health, Safety

## 1. Introduction

Health and safety management play vital role in all organizations. Automation and other technological changes in production and industry contribute worker's health and safety industry. Employee health and safety are the areas of major concern in modern industrial organization and for promotion health and safety environment and great concern are shown by employer, employees and their unions, government and public and international organizations. Complex technologies and government legislation have levied a special burden upon employer to maintain the physical and mental well-being, health and safety of their employee.

Employee health and safety are the areas of major concern in modern industrial organization and for promotion health and safety environment interest and concern are shown by employer, employee's and their unions, government and public and international organizations. Both complex technologies and government legislation have levied a special burden upon employer to maintain the physical and mental well-being, health and safety of their employee.

The function of health and safety management start from statutory provision under Factories Act, 1948 and all industries have to implement it.

## 2. Objectives of the Study

The present study was LG Electronics India Pvt. Ltd, Ranjangaon, Pune, India, with the following objectives:

- 1) To examine and evaluate safety and occupational health status in "LG Electronics India Pvt. Ltd"
- 2) To find out actual causes and types of accidents that took in the organization.
- 3) To collect the detailed information about safety measures, safety equipment provided by company.
- 4) To recommend and suggest remedial measure to improve safety performance.

Industrial safety has become the prime responsibility of the management in the modern industrial set-up. This safety management system includes the organization structure, planning, activity, responsibility, practice, procedures, process and resources for developing implementing achieving, reviewing and maintaining the organization safety policy.

It demands critical and systematic assessment of the existing standards of safety achieved in the organization with respect to the targeted goals to be achieved for the fulfillment of the system. This system intends to assist the industry to develop a systematic approach to the management of occupational health and safety in such a way as to protect their employees and others whose health and safety may be affected by the organization activities. Every organization must have one safety committee. Regular communication channels can be reinforced by the establishment of safety committee to provide a formal mechanism for consultation among employees in safety matters.

### Objectives of Industrial Safety

- 1) To maintain proper safety and keep a proper of the safety device in the organization.
- 2) Safety programs review the area where accident can and try to prevent from occurring accident.
- 3) The maintain objectives of the safety programming is to achieve "Zero-accidents".
- 4) To provide the safety book for each and every employee of all departments in regional language so that it is easy to understand.
- 5) Creating awareness about health and safety in workers.
- 6) Check the machinery of company after every 6 month.
- 7) Ensure the cleanliness and hygiene in canteen and check the regular schedule of canteen service provided to the workers.
- 8) To investigate safety and health status workers
- 9) To find out causes and types of accidents that took place
- 10) To collect the detailed information on safety measures and safety equipments provided by company.

Volume 6 Issue 9, September 2017

[www.ijsr.net](http://www.ijsr.net)

Licensed Under Creative Commons Attribution CC BY

- 11) To suggest remedial measure to improve safety performance

Industrial safety and health environment (SHE) system has become the prime responsibility of the management in the modern industrial set up. Industrial and labor legislation have made it obligatory on the part of management of industry to have necessary steps to insure industrial safety.

In organization point of view, physical and mental health and safety workers are the gold time of the organization. Protection the environment as well as the health of employees and the safety of their life and properties is one of the key work element of the company. A good SHE achievement is a necessary condition for our long term success. The ultimate objectives of the company to implement SHE of the company to implemented SHE management is to minimize accident, minimize harm to employees and associated with personal and minimize damage to the environment.

SHE system measure not only reduced the frequency of industrial accidents but also increases the productivity and also maintain good relationship in organization.

Health and safety is one of the most important aspects of any organization smooth and active function. This system intends to assists the industry to develop a systematic approach to the management of occupational health and safety. Health is positive concept emphasizing social and personal resources, as well as physical capabilities with an emphasis on continuous improvement.

This open access from is intended to create safe and healthy working environment and fosters positive safety cultures within the organization.

### **Legal provision on Health**

#### **1. Cleanliness:**

Every industry shall be kept clean and free from dust. Daily effective method of cleaning floors and benches of work rooms and disposed of in suitable manner.

#### **2. Ventilation and Temperature:**

Effective and suitable provision shall be made in every industry for securing and maintaining in every workman

#### **3. Dust and flumes:**

In every industry in which, by reasons of the production process carried on there is given f any dust or fumes or other impurity and of such a nature and to such to extend as id likely to be injurious or offensive to the worker employee therein or and dust in substantial quantities, effectives measures shall be taken up prevent its inhalation and accumulation in any workman.

The basic objectives of industrial health is the prevention diseases and injury rather than the cure of disease

1. The promotion and maintenance of the highest degree of the physical, mental and social well-being of workers.
2. The prevention of factors which makes ill health in their working condition.
3. The protection of the workers in their occupation form risk arising from factors which are adverse to the maintenance for the health.

### **3. Problem Definition**

Good Health and safety performance ensure an accidents free industrial environment. Every company or organization maintain good environment for high environment for employee's health or Safety one of the major challenges for industry is to aim for high environment and working environment standards and achieve profitability and effectiveness at the same time.

We participate in many tasks that are associated with the industrial environment that is project management, technical reports, contact to authorities, noise measurement and calculation and environment approvals. This helps lead to highly motivated employee with few absence ad high productivity. Good working environment contributes to increase job satisfaction which in turn improves the workers places ability to attract and keep the best qualified employee.

### **Methodology / Approach**

- 1) Good industrial environment maintain a better relationship with employees and workers.
- 2) Good Industrial environment motivated employees with few absence and high productivity.

### **Importance of Safety in Accidents**

Somehow we still continue to think of accidents as 'chance occurring' act of good and other such fatalistic language. Such thinking has serious consequences. Because behind the through we have an implicit assumption those accidents just happens and nothing can be done to prevent them with such a fatalistic outlook on accidents we do make efforts to understand the nature of the accidents and we not even prepared to thing the accidents.

It has been successfully demonstration that an attitude of the workers in the matter of prevents can be modified by following measures.

### **Training and awareness**

In metal casting industry the very hazardous works are there in that the workers are exposes to very dangerous hazards. For that the training and Awareness give to workers is very important. In earlier days the workers has lack of skills, lack of attentions on work and they are not aware about the industrial safety and hazards. So the safety officer is creating the awareness and gives the training from the various types namely.

1. Safety week
2. Training sessions
3. On job training
4. Tool talk
5. Mock drill

### **Safety week**

44<sup>th</sup> National Safety Week campaign was celebrated with great zeal and passion from 4<sup>th</sup> march too 11<sup>th</sup> march 2015 at plant LG Electronics Pvt. Ltd. Pune. The campaign was aimed at renewing the commitment of employees, contractors and general public to work safety throughout the year. The

Ultimate objective of the campaign was to ensure the integration of occupational safety and health in work culture and life style and also increase the safety awareness and reduction in accidents.

The approach towards the campaign was to achieve the whole hearted participation of employees, tap local in factory, to observed safety, stress on occupational health, and height light safety, health and environment issues in regard to provide safe workplace to all employee. The campaign was celebrated throughout the week from 7<sup>th</sup> June to 11<sup>th</sup> June. Various competitions, training program, mock drill and fire demo and safety exhibition were organized this week.

### **Training Sessions**

In LG Electronics, Ranjangaon conducts work related safety programs. As per convenience the Safety Officer arranges the programmes and conduct successfully.

### **On Job Training**

In LG Electronics, Ranjangaon, Safety Officer conducts the training programme on the working site. Like proper wearing methods of PPE, safe operating procedures and safety of handling the materials. From that training the workers are aware about safety and follow the instruction.

The safety officer interacts with workers and collects the information related to safety. Then they decide which type of training needs the workers. Then they conduct on job training program.

When I was getting a once month training the one on job training program was conducted. This program was related to the PPE. The workers had problem with face mask. Then safety officer teach the proper way of face mask wearing.

### **Tool Talk**

When the safety officer is on round then safety officer interact with the workers and creating awareness in worker.

### **Mock Drill**

Mock drill is creating the real situation of emergency in industry and test the emergency plan is work properly or not and give the right instructions what have to do that time and how to handle the emergency situation.

### **Accidents**

Accident is an unexpected, unplanned, and uncontrolled event in which the action or reaction of object, substance, person or radiation result in personal injury or the probability thereof.

The accident unplanned and uncontrolled event in which the action and reaction of an object, substance, person or radiation results in personal injury of the probability thereof

Types of accidents

1. Struck by
2. Struck against
3. Caught in, caught on
4. Caught between
5. Fall from height
6. Fall at same level

7. Strain or over exertion
8. Electrical contact
9. Others-exposure to extreme temperature
10. Exposure to extreme noise
11. Inhalation
12. Ingestion
13. Absorption of noxious substance

**Incident** is an undesired event that could or does downgrade the efficiency of the business operation.

Injury is any harmful condition sustained by the body as the result of an accident

**Hazards** is a condition in a work situation with a potential of causing an injury

**Unsafe condition** are those accidents factors which are present due to defects in condition, errors in design, faulty planning, or omission of essential safety requirements.

1. Inadequate mechanical guarding
2. Defective condition
3. Unsafe design or construction
4. Hazardous process, operation, arrangement
5. Inadequate or incorrect illumination
6. Inadequate or incorrect ventilation
7. Unsafe dress or apparel
8. Radiation
9. excessive noise

**Unsafe act are those behaviors which may lead to accidents**

1. Working unsafely
2. Removing safety devices, altering their operation
3. Operating at unsafe speed
4. Use of unsafe or improper equipment
5. Using equipment unsafely
6. Horseplay, teasing, abusing
7. Failure to use personal protective equipment

Danger express is relative exposure to the hazards.

Risk is an expressing of possible loss or a chance of a loss. It is expressed as a probability of accidents happening.

### **Accidents investigation**

Accidents are unexpected unplanned events, which may or may not cause injuries. These occur as the result of unsafe acts condition or due a combination of both. From the prevention aspect, they are investigation and recorded lessons they teach. May more possible combinations of unsafe acts and condition lie the future than are shown by injuries accidents provide a random a sample or a more sophisticated damage control technique to point out more of the action and condition which if unchecked may lead accident injuries.

The investigation should be for findings out the cause and not for putting blame. The main objectives should be to find out the cause of the accidents, to take remedial action. Even if the cause proves to be an unsafe act the reason for its not necessary negligence. It may be wrong instruction, lack of



training or skill. (Industrial Safety Management, D.M. Dhar 2014 PP.11).

In industry the accident investigation is done by the safety officer and department of EESH. When the accident is occur in industry then the safety officer collect all the information from accidents eye witness about the injured person like his name, his post in industry, type of accidents, how the accidents is happened, the worker is working carelessly or not, there is unsafe condition etc. then after the safety officer is study the incident and find out, what are insufficient safety devices ad what are the insufficient PPE are there.

Then after the safety officer take a name and signature of witness of witnesses and giving the safety instruction to workers for stopping repeat same accident. Then this report is submitted department.

**Work-Permit**

Where any person has to work on machinery or plant, within a confined space or in location where the accidental or unauthorized starting of plant of machinery or the existence of known hazards such as flammable or toxic fumes, lack of oxygen risk or electric shock or the presence of corrosive might cause injury to that person, a permit to work system should be employed to ensure that safe of work is adopted by all concern.

A work permit (here in after referred to has a permit) is specially designed from issued only by a responsible person indicating that certain tests have been made, that special precautions have been taken, that it is safe for work to proceed for a specified period in the plant or area indicated, and possibly specifying any additional precaution which must be observed by person carrying out the work. A safe work permit is a written record that authorizes specific work, at a specific work location, for a specific time period. Permits are used for controlling and co-coordinating work to establish and maintain safe working conditions. They ensure that all foreseeable hazards have been considered and that the appropriate precautions are defined and carried out in the correct sequence. The permit is an agreement between the issuer and the receiver that documents the conditions, preparations, precautions, and limitations that need to be clearly understood before work begins. The permit records the steps to be taken to prepare the equipment, building, or area for the work, and the safety precautions, safety equipment, or specific procedures that must be followed to enable the worker(s) to safety complete the work. The safe work permit helps to identify and control hazards, but does not, by itself, make the job safe.

**The five types of work permit is mentioned of work permit in LG Electronics is follows:**

1. Work at height
2. Roof work
3. Gas welding
4. Electrical work
5. Confined space

**Examples of work activities that are classified as working at height:**

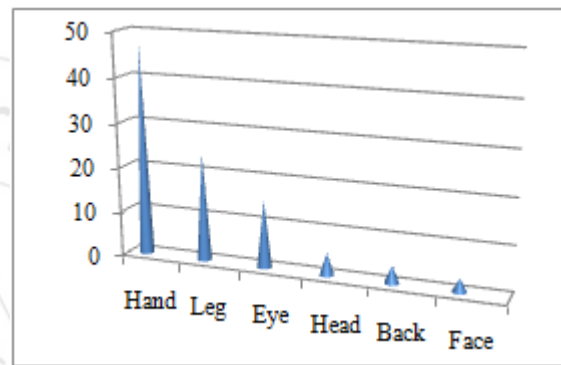
1. Working on trestles

2. Working on a flat roof
3. Erecting false work or formwork
4. Working on a ladder
5. Working at ground level adjacent to an excavation
6. Working on formwork within an excavation
7. Working near or adjacent to fragile materials

**4. Results & Discussion**

**Minor accident - body part wise:**

Sr. No.	Body part	Percentage out injuries
1	Hand	47
2	Leg	24
3	Eye	15
4	Head	5
5	Back	4
6	face	3

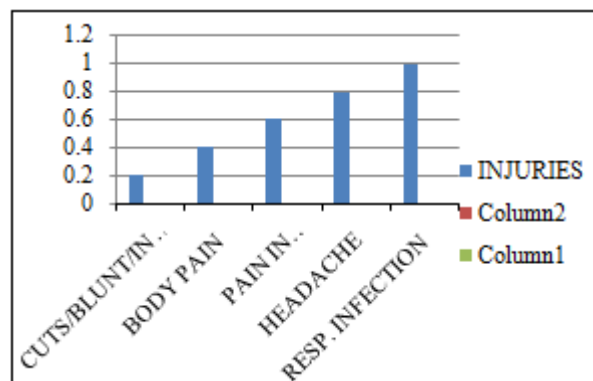


**Graphical representation**

**Interpretation:** The above table gives information about the percentage of the minor injuries body part wise. It gives which body is expose to the injuries and these is help to the take more Precaution of that part. The employee’s hand is engaged in the work this body part is mostly used. So the hand injuries rate than other body part par injury.

**Health Analysis in April 2016**

Sr. No.		Value
1	Cut/ blunt injuries/ burns	0.2
2	Body pain	0.4
3	Pain in abdomen	0.6
4	Headache	0.8
5	Resp. Infection	1



## Graphical representation

**Interpretation:** Above Table gives information about the various injuries: cuts, blunt injuries, burn, pain in abdomen, headache, respiratory infection, etc. The employee respiratory problem is engaged in this health analysis of April 2016.

## 5. Summary and Conclusion

- 1) Management Conduct health checkup program for all employees yearly.
- 2) All employees are aware about the safety program conducted by company.
- 3) All employees are used various personal protective equipments provided by company.
- 4) In industry most of the hand injuries was happened.
- 5) In industry the fettling the most of injuries was happened this is the hazardous work place in the industry.
- 6) Company gives compensation to the injured workers according to workmen compensation act.
- 7) The use of safety equipment must be made compulsory and must be strictly monitored.
- 8) First aid facilities should be increased.
- 9) There must be proper coordination and corporation between and supervisor to prevent the accidents.
- 10) Industrial environment is most important health employees are fully not satisfied with dust and fumes so increase in clean and healthy environment.

## References

- [1] Industrial Safety Management. Tata McGraw-Hill Publication
- [2] The Factories Act, 1948
- [3] The Employee State Insurance Act, 1948
- [4] The workmen's Compensation Act, 1923

## Website

- [5] [www.lg.com](http://www.lg.com)
- [6] [www.google.co.in](http://www.google.co.in)

## Author Profile



**Dr. Viswaranjan Somanath** is Associate Professor, P.G. Dept. of Env. Mgt., CSIBER, Kolhapur - 416 004, Maharashtra, India. He is Teaching M.E.M. (Master of Environmental Management), M.B.A. (Envt. Mgt.) & M.Sc. (Environment and Safety)

Course students and have 26 years teaching experience



**More Jyoti Jagannath**, M.B.A. (Environment Management) Trainee Talent Acquisition (HR) VR 360 Degree Solutions (I). Pvt. Ltd., Pune, Maharashtra INIDA