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Workplace Safety and Health – An Overview

Safety is that profession which is concerned with the scientific analysis of the causes of accidental deaths and injuries in a given environment and their elimination or reduction. In the industrialised areas of the world, accidents now cause more deaths than all infectious diseases and more than any single illness, except those related to cancer and heart disease.

The most path-breaking advances in safety during the last 40 or 50 years have been made in industry. The initial stimulus for the industrial safety movement came from the largest industries, in which severe injuries and loss of life were common occurrences. In the 19th century, the safety of an employee was generally considered to be his own responsibility. The liability of the employer for accidental injuries depended on certain common-law doctrines that operated against the employee. However, an important segment of progressive industrial management saw the fallacies in these concepts and felt that management should do more for the safety of the workers.

The social progress of the times was reflected in the development of safety movement which was given impetus by workmen's compensation laws enacted in most of the industrialised countries in the late 19th and early 20th centuries. A new concept was inherent in these laws, namely that the employer should accept primary responsibility for injuries at work, even though they could not be attributed to any one person or cause. Industry became legally liable to pay compensation for personal injuries to its workers, and survivors benefits to dependants.

The three specialised skills–safety engineering, industrial hygiene, and industrial medicine–were developed as methods of preventing injury to the worker and for reducing costs. The initial emphasis in safety engineering

was on the installation of guards and protective devices, which led to a sudden, sharp decline in machine accidents. Industrial medicine has concentrated on controlling environmental hazards i.e., the inhalation of toxic gases, fumes, and such other harmful effluents. Industrial hygiene has focused on minimising the consequences of injury and disease and with restoring disabled workers to gainful employment.

From an emphasis on mechanical guarding and education of workers in safety, experience tended to shift the focus to an application of basic safety engineering principles in the design of machinery, plant layout, and working methods. More emphasis was placed on the role of supervisory personnel, and safety was recognised as an integral part of normal operating procedure. The role of personal errors and accident proneness had been dealt with by functional job analysis. Variables relating to the health of the worker had been stressed, and working methods were modified to ensure a safe and optimum working environment as far as employee health was concerned.

These developments were a part of the movement for setting up of various organisations in different countries to perform specialised safety functions. Safety principles have been incorporated into engineering courses, and departments of safety engineering have been established in engineering schools and colleges. The most important directing force for accident prevention, however, has remained within industry itself. Although many outside agencies have contributed to safety performance, the direct and immediate responsibility for the application of safety management principles, employee education, and on-the-job safety enforcement rested upon the individual employer. In most instances, laws represented only minimal requirements and are way behind the goal of ultimate objectives.

Safety Management as a Profession

The field of safety management has not developed fully as a unified, specific discipline, and its practitioners have operated under a wide variety of position titles, job descriptions, responsibilities, and reporting levels in industry and the loss-prevention activities of insurance companies. There has also been little uniformity in the development of educational programmes in technical institutes and universities for the specialised training needed for this field.

The most recent trends in occupational safety and health include increased emphasis on prevention by the anticipation of hazard potentials; changing legal concepts concerning product liability and negligent design or manufacture; developing emphasis on consumer protection; and the development of national and international legislation and controls.

Four general areas that have been identified as the major functions carried out by the safety engineer/safety professional are:

1. identification and appraisal of accident-producing conditions and practices;
2. development of accident and loss-control methods, procedures and programmes;
3. communication of accident and loss-control information to those directly involved; and
4. measurement and evaluation of the accident and loss-control systems, and the modifications needed to obtain optimum results.

The safety professional contributes to the prevention of accidents by using his specialised knowledge of accident causation and control by (a) seeking to eliminate hazards and causation factors; (b) designing machines and procedures to reduce the hazards; and (c) minimising their effects by prescribing specialised equipment to prevent injury or reduce the severity.

One of the most important functions of the safety professional is to identify hazards in the working area and to evaluate the loss-producing aspects of a given method or operational system. In the past, a great deal of attention has been devoted to analysing the existing hazards and products, while the newer methods involve not only learning from accidents that have occurred but also emphasising on the need for advance analysis of accident potential and the prevention of accidents prior to their occurrence.

Traditional Safety Management

The form of safety management followed by most of the industries, called as 'traditional safety management', has the following characteristics:

1. Top down communication
2. Minimal employee participation
3. Dependence on discipline to influence safety behaviour
4. Centred on technical requirements aiming at short-term results
5. Use of safety techniques after accident and injury
6. Lack of integration of safety activities with other functions in the organisation.
7. Responsibility of safety officials for safety, but does not have the authority to make changes.

Five Steps to Managing Safety

1. Know and understand your safety policy and procedures.
2. Plan ways to reduce risk and remove hazards.
3. Organise people and resources to create a safe working environment and safe systems of work.

4. Measure your safety record by statistics and discussion with your staff.
5. Investigate accidents fully.

Accident Frequency and Severity Rates

Most statistical analysis of accidents are based on either frequency or severity. The frequency rate indicates how many injuries are occurring in relation to the number of man-hours worked, and the severity rate indicates how serious those injuries are in terms of days lost in relation to hours of exposure. The former has been most widely used and can be most quickly and easily computed. It does not, however, indicate the seriousness of an accident, since it merely gives the rate at which accidents are occurring. The severity rate was developed to meet this need and to give an expression of the total time lost per million man-hours of exposure. Other composite indexes usually involve weighted averages of some type, obtained by multiplying the severity rate by ten and adding the frequency rate.

The safety professional is concerned with reducing both the frequency with which accidents occur and the frequency with which they threaten. The frequency and severity rates vary widely from one industry to another. Certain industries, such as communications, have low-frequency and low-severity rates; mining and lumbering are at the opposite extreme. These differences reflect not only the inherent dangers in an industry but also efficiency of the safety programme.

Safety Analysis

One widely used analysis of the circumstances of accidents include the following:
1. identification and location of the materials, machines, and tools most frequently involved in accidents and the jobs most likely to produce injuries;
2. location of the departments and occupations involved;
3. disclosure of the unsafe practices, which may necessitate retraining or shifting of employees; and
4. study of the role of supervisors, and provision of information about the principal hazards.

Other significant factors include the type of physical injury incurred; the source of the injury in relation to the object, The substance or motion that inflicted it; the specific part of the material or agency that was hazardous and finally, the unsafe act that took place, presumably in violation of commonly accepted safety practice. Other aspects include age, sex, occupation, and type of work being performed.

All possible faults in equipment and in the work areas in industry, as well as the capacities of the operator, should be subjected to an advance analysis designed to prevent accidents. If defects are present, it is only a matter of time before some operator "fails" and has an accident. Advance analysis assumes the following:

1. An operational job analysis that should include a survey of the nature of the task, the work surroundings, the location of controls and instruments, and the way the operator performs his duties.
2. A "functional concept of accidents" i.e. anticipation of the errors that may occur while the operator is working at the machine.
3. An assumption of human limitations.

One method of identifying unsafe conditions involves selecting a random sample of workers from various portions of the plant or population, exposed to various hazards. An interviewer questions the workers, asking them to describe near-miss safety errors they have made in the past, or unsafe conditions they have observed. The data are classified into hazard categories to ascertain factors which have contributed to an actual or potential loss-producing event.

Safety Culture

An organisational culture develops over many years and is normally well ingrained amongst the top managers in the organization, it is, therefore, extremely difficult to change. The organisational culture in general, and the existence or non-existence of a safety culture within the organisation in particular has, not surprisingly, a profound effect on the behaviour of people within the organisation. The statement "this is the way we do things around here should reflect an uncompromising commitment from the organisation to work safely.

Establishing and developing safety culture within an organisation and managing safety from a behavioural perspective, is the most powerful approach to the management of safety.

In almost all organisations with a very good safety record, two important principles involved in the establishment of a safety culture have been identified. Firstly, the organisation should clearly define the role, responsibility, and accountability of directors, senior managers, middle managers, and employees generally, for safety; and secondly, there should be a conviction that high standards are achievable through proper management.

In creating and maintaining the safety culture in an organisation, the following are important:

- A genuine and visible commitment from the top.

- An acceptance that improving safety performance is a long-term goal which requires a sustained effort and interest.
- A policy statement of high expectation which conveys a sense of optimism.
- Employee ownership, involvement, training and communication.
- Good codes of practice and safety standards.
- The provision of adequate resources for safety.
- Safety is seen as a line management responsibility.
- Setting challenging targets and performance measurement against those targets.
- Thorough investigation, documentation and dissemination of information relating to all incidents and deviations, irrespective of whether injury or damage occurred.
- Compliance with standards should be ensured through auditing.
- Good safety behaviour should be accepted as a condition of employment.
- All deficiencies in safety should be remedied promptly.
- Managers at all levels should regularly assess safety performance.
- Factors that influence the behaviour of managers, supervisors and employees should be properly managed.

Safety Policy Statements

Policy statements will reflect the culture of the company. They should be relatively short, concise documents strategically developed by the highest corporate or company authority. Statements should be clearly written to ensure full understanding by all concerned, and supported by clearly defined organisational arrangements by which the policy is implemented. They should be reviewed regularly to ensure they are up-to-date concerning organisational change and legal requirements.

Every policy statement together with supporting documents should cover all or most of the following elements or principles:

- Management's commitment to provide a safe and healthy work environment that encompasses techniques, methods, organisation, and facilities improvement. Management is responsible for ensuring that employees are provided with a working environment that is free of recognised hazards.
- Continuous improvement by working together with long-term views of safety and health, environment, economy, and social integration.

- Management systems should incorporate innovative and progressive systems that lead to minimal safety and health impacts.
- Education, training and communication help develop and promote mutual understanding of safety and health issues for all stakeholders.
- Research and workplace technologies, innovation, technical co-operation, and sound engineering are fundamental to facilitate improvements.

Government regulations must be recognised where applicable. Cooperation with the Government in a responsible manner fosters safety benefits and cost effective legislation.

Systems Safety Engineering

In recent years, a great deal of attention has been devoted to "systems safety engineering". In brief, the primary objective of systems safety engineering is the reduction or elimination of all hazardous consequences of equipment operation in an industrial plant or similar large man-machine complex. It characteristically involves a systematic application of special analytical techniques, derived criteria, evaluation methodology, and management skills. Since it emphasizes prevention rather than correction of problems, particular attention is to be placed upon early engineering design and procedural analysis. It has to take into consideration all aspects i.e. planning, design, development, fabrication, test, installation, maintenance, operation, and overall evaluation of man-machine systems.

Accidents result from deficiencies in human operation, defects in tools and mechanical equipment, and a variety of environmental influences. An accident may include mechanical or electrical failure, defective materials, and such environmental conditions as extreme heat or noise levels inhibiting inter-communication. Human failure may derive from such factors as distraction, fatigue, worry, improper attitude, lack of skill, and carelessness.

Design failures and human limitations: In many instances failures in the designing of equipment are so subtle that those responsible for analysing and reporting accidents are not aware of them. It is so because the designers of equipment are unaware of human limitations.

In order to improve the ease, efficiency, and safety of operating all types of equipment in shops and hangars, consideration has to be given to layout of working areas. Additional factors influencing the efficiency and safety of workers relate to the physical variables in the environment. Some of these include temperature, humidity, ventilation, noise, and vibration. Extremes of any of the factors result in discomfort, lowered efficiency, and increased accident risk.

Safeguarding machinery in working areas: The basic principles of safeguarding continue to be of great importance, however, in many industrial operations. The primary purpose of machine guarding is to prevent injury from direct contact with moving parts, and from mechanical or electrical failures in the equipment, and from predictable human errors or failures. The principles of guarding are also important in relation to plant layout and the movement of men and materials.

Safety principles in materials handling: Prevention of unsafe work practices, such as improper lifting, carrying too heavy a load, incorrect gripping is still an important safety function. Many injuries can be avoided by proper design of the work station or of the physical activities involved. One of the most commonly reported injuries is to the back and spinal column. Manual handling of materials is the cause of a large percentage of all fatal injuries and of permanent and temporary disabilities.

Occupational Hazards

Electrical hazards: Many accidents are caused by use of switches and items improperly selected for the specific purpose. In most countries, independent testing laboratories test and approve electrical equipment for use in industry and in the home. Such laboratories test for shock and fire hazards and may also evaluate radiation and heat hazards.

Chemical hazards: Modern chemical plants are designed and constructed to provide protection against chemicals. Many common industrial chemicals involve toxic and fire hazards. Some of the chemical substances used may be poisonous or harmful, corrosive, or combustible and explosive. The safety engineer is concerned with the identification of exposures to chemical agents and how this exposure can be prevented. In industry, toxic materials are most commonly absorbed either through the respiratory system, or through the skin, or through the gastro-intestinal track. Recommended practices have been developed for the storage, transport, and handling of hazardous and flammable materials.

Radiation hazards: Radiation is emitted from either the atom's unstable nucleus or its unstable orbital area. The problem of greatest concern to the safety specialist is the alteration of cells in the body induced by radioactive exposure. Radioactive sources increasingly are being used in production processes. The safety specialist in cooperation with the company medical department has to supervise the handling and storage of radioactive materials, the disposal of residue and wastes, and the proper shielding of new installations. Comprehensive regulations covering such activities have been developed in each country.

Miscellaneous hazards: Specific processes and activities in industries gives rise to various accidents and hazards, for instance:

- Many factors need to be considered in hazard prevention to ensure safe working in engineering, vehicle maintenance and other types of work activities.

- In order to eliminate or reduce shop floor accidents, floors should be sound and kept clean with adequate drainage where wet processes are undertaken.

- Various hazards associated with machinery and equipment should be operated only by workers who should be adequately trained and supervised in their use.

- Many accidents are caused by the misuse of hand tools or the use of defective hand tools. Hand tools should be examined on a regular basis and defective tools are to be rejected.

- The principal hazard in laboratories is fire. So, ideally all laboratories should be of single-storey construction and separate from other buildings. Good housekeeping is a key factor in safe laboratory practice. Employees should be trained in the elements of sound personal hygiene.

- Fire is the major hazard in offices. Also, equipment and materials used in offices present a wide range of hazards.

- A number of injuries take place in catering operations. Good standards of safety in catering originate from the design of the kitchen area. Kitchens also represent a considerable fire hazard, particularly where housekeeping standards are poor.

- There are certain hazards common to gas welding and electric arc welding, such as fire and explosion burns, toxic fumes and gases. Any leakage of fuel gas is potentially hazardous, as ignition may lead to rapid or explosive combustion, particularly in confined spaces or unventilated areas.

- Many hazards arise from poor standards of maintenance and/or repair of equipment, improper use, and use of unsuitable materials.

The main hazards associated with maintenance operations can be physical, mechanical, electrical, chemical, and structural. Hence, there should be safe access to the processing plants and buildings.

Systems Approach to Safety and Health

Effective safety management considers the type of safety problems, accidents, employees and technology in the organisational setting. Further, the systems approach to safety recognises the importance of the human element in safety.

Any comprehensive and systematic approach to safety begins with the organisational commitment. This effort should be co-ordinated from the top to involve all members of the organisation and be reflected in their actions and work. Once a commitment is made to organisational safety, planning efforts must be co-ordinated, with duties assigned to supervisors, managers, safety specialists, and personnel specialists. The focus of any systematic approach to safety is the continued diligence of workers, managers, and other personnel.

Basic principles of accident prevention:
1. An unsafe act, an unsafe condition, an accident – all these are symptoms of something wrong in the management system.
2. Certain circumstances of severe injuries can be identified and controlled.
3. Safety should be managed like any other company function.
4. Management should direct safety action by setting achievable goals by planning, organising and controlling.
5. The key to effective line safety performance is management procedures that fix accountability.
6. The function of safety is to locate and define the actual errors that allow accidents to occur.

Involvement of employees in safety is done through the use of safety committees. These committees are often composed of workers of different levels and from a variety of departments. At least one member of the committee is usually from the personnel unit.

A safety committee generally has a regular scheduled meeting, has specific responsibilities for conducting safety reviews, and makes recommendations for changes necessary to avoid future accidents. A safety programme includes a set of safety rules. Specific rules are made in order to protect employees from possible hazardous working conditions.

Six basic requirements while developing safety rules:
1. They should be in the written form.
2. They should be practical.
3. They should highlight an unsafe act or conditions.
4. They should be limited to safety matters only.
5. They should assist in implementing safety rules.
6. They should be adopted and strictly enforced.

Every accident at the workplace needs investigation. An accident investigation is a methodical effort to collect and interpret facts. It is a systematic look at the nature and extent of the accident and loss involved. It is an enquiry as to how and why the accident occurred; a consideration of what could be done to prevent similar accidents.

Six questions that can be applied to accident investigation are:
*   * Who was injured?
*   * Where did the accident happen?
*   * When did the accident occur?
*   * What were the contributing and immediate causes of the accident?
*   * How can a similar type of accident be prevented?

Safety education and training

Safety education for all levels of management and for employees is a vital ingredient for any successful safety programme. Top and middle management require education in the fundamentals of safety and the need for an effective accident prevention programme. The supervisors must understand their key role in the safety effort, namely, that they are primarily responsible for preventing accidents. They must conduct safety training programmes for their employees who are directly under their supervision. In addition to safety training, periodical safety meetings are to be organised. Among the topics that may be covered are how to prevent accidents, importance of good housekeeping, handling materials safely, first aid, machine hazards, fire prevention, and protecting oneself.

One way to encourage workplace safety is to involve all employees at various times in safety training sessions and at committee meetings. In addition to safety training, continuous communication programmes to develop safety consciousness are necessary. Posting safety policies and rules is part of this effort. Contests, incentives, posters, bulletin boards are all means through which employers can heighten safety awareness.

A short outline of information to be included in designing the training format:
* Purpose of the specific training and safety programme
* Company policy
* Responsibilities for the administration of the programme
* Hazards and their effects
* Safe behaviour
* Specific hazard controls – engineering, administrative, training and supervision controls
* Procedures for reporting uncontrolled hazards
* Emergency procedures and preparedness

Process Safety Management (PSM)

PSM is a management process that allows leaders involved in commercial manufacturing and chemical businesses to proactively recognise, understand, and control process hazards, such that process related injuries and incidents may be prevented and organisations can continue to progress towards its value

maximisation goals. PSM when simplified is the application of a management system and supporting tool to eliminate, prevent, and minimise the impact of process-related incidents and events.

A PSM programme must be systematic and holistic in its approach to managing process hazards and must consider the following:

1. The process design
2. Process technology
3. Process changes
4. Operational and maintenance activities and processes
5. Non routine activities and procedures
6. Emergency preparedness plans and procedures
7. Training programmes
8. Other elements that affect the process

Several elements of PSM are focused on personnel management strategies for ensuring the health and safety of all workers. These include:

1. Employee training and competency
2. Contractor safety management
3. Incident investigation
4. Management of change (personnel)
5. Emergency preparedness, planning and management

Success in PSM requires the involvement of many supporting systems and processes. The safe and efficient operations of facilities and technology are also a core focus of PSM. These include process safety information, process hazard analysis, mechanical integrity of equipment, and operating procedures. The safe and efficient operations of facilities and technology are a core focus of PSM.

The key elements of PSM are:

1. Preserving the health and safety of all workers at all times on a process facility.
2. Ensuring that all processes and systems are conducted safely at all times.
3. Maintaining the integrity of the facilities and processes such that the health and safety of all workers are maintained.

PSM introduces a bold and complete new approach for managing the health and safety of workers and for reducing the impact of capital losses associated with catastrophic failures and disasters in the workplace.

Safety Whose Responsibility

Safety is primarily the responsibility of the management. This responsibility should rest on the shoulders of all cadres of management,

such as plant manager, production manager, chief engineer, human resource manager, maintenance engineer, individual foreman, safety officer or director.

Every organisation should formulate and implement a safety policy. The procedure to be adopted naturally depends upon the size of a company, the number of plants it operates, the nature of the industry in which it is engaged, the production technology it uses, and the attitude of the top management. After it has spelt out its safety policy, a company should establish a safety programme, the primary goals of which should be to reduce the number of hazardous factors which are likely to cause accidents, and to develop safe working habits among its employees.

While management has the responsibility to provide safe working conditions for employees, supervisors must insist on safe work practices in the workplace. Safety is every one's business. However, the supervisor is in a better position to spot safety hazards and to make sure that the work is done in a safe manner by each and every person on the job.

In a nutshell, the management's responsibility towards health and safety will be to:

- contribute in eliminating the hazard at source through improving the system of work.
- isolate hazardous processes and substances so that workers do not come into contact with them.
- ensure that suitable items of protective equipment and clothing are used and worn.
- train workers on how to avoid risks to health.
- maintain plant and equipment to eliminate the possibility of harmful emissions and injuries to people at work.
- keep premises and machinery clean and free from toxic substances.

Safety audit: The safe operation of industrial plants is the responsibility of the top executives. To effectively discharge this responsibility, there is a need for laying down a broad safety policy as well as a comprehensive programme to ensure its implementation. Thereafter, it is important for the senior management to review the performance of the safety activities and programmes of the company at periodical intervals. Safety audit is a useful technique to undertake a systematic critical appraisal of the effectiveness of a company's safety programme. Such a periodic review provides an independent assessment of the correctness of the basic direction as well as identifies the specific areas for action to improve the programme.

Safety audit is a tool for ensuring that the plant operation and maintenance procedures match the design intent and standards. It keeps operating personnel alert to the process hazards; reviews operating procedures for necessary revisions; seeks to identify equipment or process changes that could have introduced new hazards; initiates application of new technology to existing hazards; and reviews the adequacy of maintenance and safety inspections.

Periodic safety audits should be conducted to determine what types and categories of accidents occur in the organisation. The following questions should be asked in a safety audit:

1. Was the incident fully investigated?

2. Was the data used to provide additional safety training to the injured employee, or to all employees where appropriate?

3. Did the investigation help eliminate hazards, provide personal protective equipment?

4. Is a safety awareness campaign planned for the coming year? What is the nature of the campaign?

Safety Rating System

A sector specific comprehensive rating system has to be developed to carry out qualitative, quantitative and objective assessment of an organisation's occupational safety and health (OSH) system as per the industry specific standards and adhering to both national and international best practices.

The safety rating system should cover certain major elements like

(a) OSH management

(b) Physical hazards

(c) Chemical hazards

(d) Fire and explosion hazards

(e) Industrial hygiene, and occupational health

(f) Accident/incident reporting, investigation and analysis

(g) Emergency preparedness

(h) Safety inspection.

Accident reports and records: Reports and records of accidents should be maintained by an organisation in detail and should contain the following items.

- The total number of employees in the unit who are exposed to different types of accidents.

- The severity of the accident – whether it resulted in a broken bone, a deep cut – and the time that was lost as a result of it.

- The kind of work or occupation in which the employee was engaged.
- The date, time and day, and the shift during which the accident occurred.
- The total number of years during which the employee was engaged on that particular job when the accident occurred.
- Personal data, including the age and health of the injured employee.
- The immediate cause of the accident – whether it was the result of a malfunctioning of a machine, or whether the employee failed to use the safety devices provided for the purpose of preventing accidents, and so on.

Emergency Preparedness

The management has to prepare and implement an emergency plan to control major accidents and hazards. The basic and essential features of emergency preparedness should be to:

- Access the size and nature of the events foreseen and the probability of their occurrence.
- Work out up-to-date details of on-site and off-site emergency plans to be separately prepared and be consistent with each other.
- Liaison with the local authority including the emergency services.
- Lay down procedures for: (a) raising the alarm, (b) communication both within and outside the works, and (c) rescue/evacuation of personnel and containment of emergency.
- Appoint key personnel and specify their duties and responsibilities.
- Establish an emergency control centre equipped with adequate means of communication.
- Work-out appropriate details of actions and the decision to be taken on-site and off-site.
- Arrange for publicizing authoritative information to all concerned.
- Conduct training and rehearsal programmes.
- Review and update the effectiveness of emergency preparedness.
- Declare cessation of emergency in time and give a clear signal.

Health Promotion

Health has been defined by WHO as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Health promotion emphasises the positive dimensions of health. Health promotion is a mediating strategy between people and their environments, combining personal choice with social responsibility for health to create a healthier future.

The scope of health promotion in the workplace is potentially very large and intervention programmes can be designed to cover many subjects related to lifestyle such as exercises, healthy eating, and the management of stress. Health promotion among employees at the workplace should be an integral element of a company's business strategy. The reason is that a healthy worker is a productive worker. Moreover, improvements in employee health result in better work attitudes, higher morale and job satisfaction, lower employee turnover and reduced absenteeism.

Health promotion focuses on prevention rather than treatment or cure. Hence, the health programme in an organisation is normally planned around improvement and prevention of controllable risk factors such as smoking, obesity, high level of cholesterol, stress, hypertension, and low level of physical fitness which are responsible for many major diseases. The industrial health programme of many progressive organisations takes positive steps to maintain good employee health off the job as well as on the job. Some organisations have also established programmes in the field of mental health.

Examples of Occupational Health and Safety Policy Statements

Example **1**

Company X is committed to achieving the highest performance in occupational health and safety with the aim of creating and maintaining a safe and healthy working environment throughout its businesses. Consistent with this, the company will:

- Seek continuous improvement in its occupational health and safety performance taking into account the evolving community expectations, management practices, scientific knowledge and technology.

- Comply with all applicable laws, regulations and standards and where adequate laws do not exist, adopt and apply standards that reflect the company's commitment to health and safety.

- Involve employees and contractors in the improvement of occupational health and safety performance.

- Train and hold individual employees accountable for their area of responsibility.

- Manage risk by implementing management systems to identify, assess, monitor and control hazards and by reviewing performance.

- Ensure that employees, contractors and visitors are informed of and understand their obligations in respect of this policy.

- Communicate openly with employees, government and the community on occupational health and safety issues; and contribute to the development of relevant occupational health and safety policies, legislation and regulations.
- Support relevant occupational health and safety research.

Example 2

At Company Y there is nothing more important than the health and safety of employees. The company is committed to:

- Integrating health and safety practices into all aspects of work and continuing to incorporate these practices into product and process design, manufacturing and business planning.
- Providing innovative and preventive health and safety programmes. The company will continually optimise the effectiveness and integrity of programmes through open communication, comprehensive training and education, audits and workplace assessments.
- Developing and understanding among those in leadership of their responsibilities and their accountability to provide a safe and healthy workplace.
- Developing and understanding among all employees of their responsibility to work safely, their accountability for individual performance, and the assignment of appropriate authority to implement these responsibilities.
- Meeting or exceeding the requirements of applicable legislation and regulations by superior performance in health and safety matters and thereby demonstrate leadership within the industry.

Safety philosophy of company A

- Safety is not a style statement; but an evolving science, to be meticulously practiced by every team member.
- Benchmark company's operations for meeting exacting global standards; this should be reflected in all its units.
- Create proactive safety philosophy with multiple safety levels at all operational units.
- Provide extensive training programmes ensuring information dissemination and 24×7 preventive safety measures.
- Prepare an action plan in consultation with E.I. DuPont India Private Limited to meet global safety standards and create a world-class safety culture in the company.
- Change the culture by providing safety training to employees and instil in them the importance of safety.

Reorganise the organisational structure by installing safety committees and sub-committees and involving the senior management in the structure to infuse the importance of health and safety.

2. Safety and Health Policy of Company B

The occupational safety and health policy of the company is based on and supported by the following eight principles:

- All injuries and occupational illnesses are preventable.
- All operationable exposures can be safeguarded.
- Safety evaluation of all business processes is vital.
- Working safely is a condition of employment.
- Training employees to work safely is essential.
- Management audits on safety are a must.
- Employee involvement is essential in all safety efforts.
- All deficiencies must be reported and corrected promptly.

CASE

The Hindustan Glass Works, a manufacturer of glassware with 900 employees, has had the following injury record for the past three years. The earliest year is shown first: injuries involving days away from work is 44, 53, 47. In the previous year, one worker suffered permanent disablement to burns; and another lost four fingers on his right hand.

The company employs a full-time safety manager and has a safety committee. There is a relatively strong union affiliated to a national organisation.

The union and management are in the midst of somewhat bitter collective bargaining. The union representatives in the third day of negotiation have introduced a demand that the union be given equal authority with management in all aspects of safety. They maintain that working conditions are not safe enough and so the union should be given authority to set minimum safety standards, to stop production when these are not complied with, and to co-opt as an equal partner with the present safety committee in inspecting and determining safety violation and proposing remedial action.

The hazards must be identified and systems established to reduce, or preferably eliminate the risks.

Question

1. What do you think the management representatives should do? Should this union demand be granted?

SUMMARY

- Accidents are the result of unsafe personal acts, unsafe conditions, or a combination of both, and it is generally agreed that unsafe personal acts cause the bulk of organisational accidents.

- Organisational health hazards include all toxic substances found in the work environments that may be hazardous to employee health.

- In controlling major accident hazards, it is the industries who have to take lead as they are the ones who create the hazards and it is they who have the means to prevent or control any major incidents leading to uncontrolled developments at its source and at the inception stage.

- Accident frequency and accident severity are the two most widely-accepted methods for measuring an organisation's safety record.

- Organisational interest in health and safety is influenced by social values and economic considerations and legal compulsions.

- Organisational efforts to improve safety and health usually begins with a company safety policy.

- Three general areas of activities in safety and health are investigating, reducing risks at the workplace, and monitoring the safety efforts through reporting and follow-up.

- Related safety techniques include careful selection of employees, safety research, accident investigation and analysis, safety committees, protective equipment, and safety training and communication.

- Managing health and safety through legislation, administrative reorganisation, and most importantly the education and reorientation of the attitudes of industrial community and general public, is a great challenge to be faced by all concerned.

DISCUSSION QUESTIONS

1. Why is safety management regarded as a profession?
2. Accidents result from deficiencies in human operation, defects in tools and mechanical equipment, and a variety of environmental influences. Elucidate.