

1- Occupational safety and health

1-1- Introduction

When the Industrial Revolution began in Europe, peasants moved in large numbers to the cities, where there was industry, to escape the enslavement they were in. They are faced with feudal lords. Many incidents have begun to appear, leading to injury to these immigrants who have no knowledge of the industry

And the dangers thereof. The factories were full of various types of dangers, and the prevailing opinion was that if an accident occurred and the injured person was the cause of it, then

The employer is not bound by any responsibility at all. When the incidents increased alarmingly and everyone started talking about them, an enactment was passed. Laws and legislation obligate factory owners to compensate those injured in accidents, even if they caused them to occur. And then he took

Factory owners improved working conditions in order to reduce the compensation they paid to the injured, which reduced the number of injuries. However, the percentage of accidents have risen again due to the abundance of organic and chemical substances introduced into industrial processes and the expansion of...

Reliance on machines in the production process is another main reason for not treating industrial security (administratively) equally with...

The most important goal of the establishment is profit.

2-1- The concept of occupational safety and health:

Safety in general is the science that seeks to protect humans, protect them from risks in any field, and prevent losses

In lives and property whenever possible.

Occupational safety is the science that is concerned with preserving the safety and health of humans from the risks they may be exposed to

Because of the performance of the work, by providing a safe work environment free of causes of accidents or occupational diseases. or

It is a set of rules and regulations within a legislative framework aimed at preserving people and property from...

Risk of injury and damage.

3-1- General objectives:

a. Protecting people from injuries resulting from work environment hazards by preventing their exposure to accidents and injuries.

B. Preserving the components of the physical element represented by the facilities and the devices and equipment they contain from damage and destruction.

T. Providing and implementing all occupational safety and health requirements that ensure a safe environment that prevents dangers for the employee

Human and material.

Th. Establishing safety in the hearts of workers while they do their work.

4-1- Safety areas

Safety is involved in all areas of life, but industry is the most important area in which the need to provide safety means appears to prevent or

Reducing work accidents and preventing or reducing the possibility of contracting

occupational diseases, given the dangers surrounding them at higher rates than others. Surrounded by others, this does not mean at all that there is no need to provide safety reasons in other areas. The clearest example of this is
In the field of traffic, it is noted that the percentage of deaths due to traffic accidents may exceed the percentage of deaths due to industrial causes, and then it appears
The importance of following safety procedures in this and other fields.

5-1- Main production elements:

Occupational safety and attention to it in any institution are considered a manifestation of administrative development and successful economic planning
It is considered a reflection of public and institutional awareness of the importance of safety and its role as an important production sector. Safety in its modern and comprehensive sense

It means maintaining the main production elements, which are:

- a. People inside and outside the organization.
- B. Raw materials and produced materials.
- T. Production equipment and tools.
- Th. The surrounding environment is water, air and soil.

In order for occupational safety to reach an advanced, growthable level, we must maintain the aforementioned four elements

This is done by taking care of the following basic components:

- a. Purposeful and programmed scientific planning.
- B. Advanced, specialized legislation that keeps pace with development.
- T. Implementation and compliance with legislation through specialized technical regulatory and informational bodies.

6-1- Foundations of occupational safety programs:

Achieving an occupational safety program must be based on certain foundations, regardless of the number of individuals working or the nature of the work

In the workplace, these principles are:

- 1-Training
- 2-And supervision
- 3-Administration
- 4-Safety programs
- Professional
- Sound environment
- for work
- Involve individuals
- staff

1-6-1- Administration website:

Scientific studies in various parts of the world have proven that the success of implementing occupational safety programs depends primarily on the amount of attention

Senior management in the matter, as it was found that the more responsibility for program implementation was assigned to a higher official in the administrative position, the more it was achieved

Better program implementation. This is because, through his administrative position in senior management, he can impose occupational safety plans.

After making the decision, he is able to follow up on its implementation accurately and address any obstacles that may arise. He is also able, through his position, to Assigning specialists at various levels to implement the program plan to ensure its success.

2-6-1- Sound environment for work:

- a. The design of the facility must have taken into account the nature of the work and occupational safety procedures.
- B. Identifying work risks by management and explaining this to individuals working with the preventive measures taken, which include not being exposed to Employees injured or ill.
- T. Ensuring that individuals are not employed unless they are certain of their ability to perform the work correctly and properly.
- Th. Providing fire and explosion prevention means at work sites and training workers on how to use them.
- C. There must be maintenance, maintenance, and maintenance of equipment and devices, which ensures their proper operation at all times.
- H. Ensuring general cleanliness, which means cleanliness of places, devices, and tools, as well as their good arrangement and maintenance.
- Kh. Proper means must be provided when starting work as well as when handling hazardous materials.

3-6-1- Training and supervision:

Most studies in the world indicate that one of the main reasons for accidents is the failure to take safety measures by the individual

During work, this is due either to his lack of knowledge about it, his lack of training in it before starting work, or the lack of continuous direct supervision

By the supervisor to implement preventive measures by the individual himself during work and therefore stresses that the foundations of training and supervision must

It should include the following:

- a. Appointing the new individual in the appropriate position for him.
- B. Training the new individual on the correct work method.
- T. The supervisor continues to monitor the individual worker for good work performance and in the proper manner.

4-6-1- Involving individuals working in establishing and achieving occupational safety:

Although the responsibility for achieving occupational safety in the workplace falls on management, the individual workers are the group that benefits

From the health program

Safety is paramount as it protects the individual from work risks, so the individuals working with must be involved

Management bears responsibility for implementing these programs.

7-1- Occupational Safety Officer:

Definition:

He is the person entrusted with supervising everything related to providing occupational safety requirements.

Two basic factors must be taken into account when choosing the person responsible for occupational safety:

- a. Qualifications and training required
- B. Personality and ability to plan and implement occupational safety programs.

1-7-1- Duties and tasks of the occupational safety official:

- a. Regular inspection of workplaces and detection of danger points.
- B. Investigation of work accidents.
- T. Supervising the selection of appropriate personal protective equipment.
- Th. Working to spread preventive culture.
- C. Preparing accurate statistics on work accidents.
- H. Participation in the Occupational Safety Committee.
- Kh. Supervising the implementation of occupational safety programs approved by the Safety Committee.

2-7-1- Objectives and functions of the Occupational Safety Committee:

The committee's most important goals are to make working conditions safe for all workers and to put in place precautions to prevent workers from being exposed to dangers

Health and work risks through the following means:

- A. Analyze the ongoing operations in the facility and develop sound and safe operating instructions for each operation.
 - B. Training workers on sound technical work methods with supervision.
 - T. Continuous periodic inspection of various work methods.
 - Th. Establishing the necessary precautions to create a healthy and safe work environment.
 - C. Studying the causes of accidents and developing radical solutions to ensure they do not reoccur.
 - H. Choose the appropriate protective clothing for each operation.
- Participate in preparing the necessary budget for occupational safety.

3-7-1- The worker's responsibility to achieve occupational safety

- a. The worker's commitment to following the instructions and instructions given to him and not violating them or being negligent in implementing them.
- B: Take caution when carrying out assigned tasks to avoid injury or occupational illness.
- T. Commitment to wear personal protective equipment when doing any work that requires it, while ensuring that the worker is entitled to the claim By insuring it for him if the employer neglects to insure it.
- D. Inform the employer or supervisor of danger points to avoid their occurrence.

3-8-1- The system for forming occupational safety and health committees and supervisors in accordance with requirements

Jordanian Labor Law

This system requires employers to appoint qualified, full-time occupational safety and health staff according to the number of employees in the organization, as it is Shown in Table No. (1), to follow up on matters and topics of occupational safety and health in the workplace, and to form a safety committee

And occupational health, headed by the Director-General, and the Occupational Safety and Health Supervisor as vice-chairman and rapporteur of the committee, with chairpersons as members

Departments and representatives of workers, provided that the committee meets periodically to discuss occupational safety and health issues within the institution.

Table No. (1) Occupational safety and health staff in institutions in accordance with the

institution. Table No. (1) Occupational safety and health staff in institutions in accordance with the requirements of the Jordanian Labor Law

Numbers of workers

50-20

200-51

500-201

1000-501

For every thousand in excess of the above

Technical specialist supervisor

1

2

1

Free

1

1

2

3

2

Occupational safety and health committee

1

1

1

1

The Jordanian Labor Law specifies the Institute of Occupational Safety and Health as the only accredited body to qualify and graduate safety specialists and technicians. And occupational health. The institute graduates about 60 specialists and technicians every year, but the actual number is required to implement the law It is considered much larger than this number.
Unavailable

9-1- The system of preventive and curative medical care for workers in institutions in accordance with To the requirements of the Jordanian Labor Law

This system obligates employers to establish a medical unit and appoint a medical staff, including doctors and nurses, according to the number of workers in the company The institution, as shown in Table No. (2), with the aim of monitoring the health situation in the institution to prevent negative effects To work on the health of workers in addition to their role in treating workers and making them aware of the various risks of the work environment. This is also necessary The system requires employers to conduct initial and periodic examinations of workers to

ensure their health fitness before and during work.

Table No. (2) Medical staff in institutions in accordance with the requirements of the Jordanian Labor Law

| Medical unit | Full-time nurse | doctor | | Number of Workers |
|--------------|-----------------|--------|-------------|-------------------|
| | | Free. | Unavailable | |
| — | — | — | 1 | 100-50 |
| 1 | 2 | 1 | — | 500-101 |
| 1 | 3 | 2 | — | 1000-501 |
| 1 | 4 | *3 | — | 1001 and above |

10-1- Measuring the effectiveness of the safety program

There are many ways to measure the effectiveness of a safety program, including the average number of deaths, the rate of injury recurrence, and the rate of injury severity:

1. Average number of deaths: This means the number of deaths that occur during work during 100 million working hours in the facility.

It is measured by the following equation:

Average number of deaths = number of deaths that occur during work x 100,000,000/total number of hours worked by facility workers

2. Injury recurrence rate: This means the number of times and type of injuries, and is defined as the number of incapacitating injuries during

One million working hours in the facility, measured by the following equation:

Injury recurrence rate = number of disabling injuries x 1,000,000 / total number of working hours of facility workers

3. Injury severity rate: It aims to know the severity of the injury, and is defined as the total number of days that represent

The time lost during one million working hours in the facility is measured by the following equation:

Injury severity rate = number of days lost due to injury x 1,000,000 / total number of working hours of facility workers

The following two tables show some statistics for BP and Shell:

Table 3 BP statistics

| 2001 | 2002 | 2003 | 2004 | 2005 | |
|---------|---------|---------|---------|--------|-------------------------|
| 16 | 13 | 20 | 11 | 27 | The number of deaths |
| 327 | 272 | 239 | 230 | 305 | Total working days lost |
| 0.13 | 0.10 | 0.09 | 0.08 | 0.11 | Injury severity rate |
| 0.95 | 0.77 | 0.61 | 0.53 | 0.53 | Injury recurrence rate |
| 110,100 | 115,200 | 103,700 | 102,900 | 96,200 | Number of Workers |

4 Shell company statistics 2

| 2001 | 2002 | 2003 | 2004 | 2005 | |
|--------|---------|---------|---------|---------|--------------------------|
| 40 | 53 | 47 | 37 | 36 | The number of deaths |
| 5.2 | 6.3 | 5.6 | 4.4 | 4.4 | Average number of deaths |
| 2.9 | 2.6 | 2.6 | 2.6 | 2.5 | Injury severity rate |
| 1.2 | 1.1 | 1.0 | 1.0 | 0.9 | Injury recurrence rate |
| 90,000 | 111,000 | 119,000 | 113,000 | 109,000 | Number of Workers |