

Practice Occupational Health and Safety Procedure

INFORMATIONS SHEET No. 4.1-1 Hazards and Risks Identification and Control

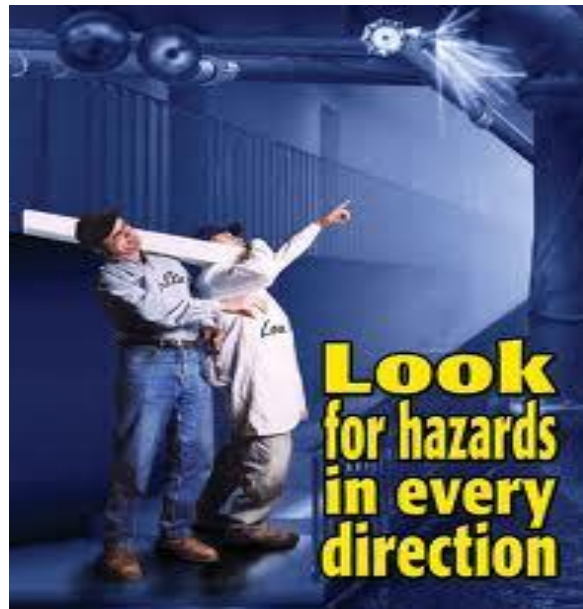
Learning Objective:

After reading the information sheet, you should be able to:

1. Identify safety regulations in the workplace.
2. Define hazard.
3. Differentiate the different types and methods of hazards.

Hazard Identification

The first step in reducing the likelihood of an accident is hazard identification. Hazard identification is identifying all situations or events that could cause injury or illness. Eliminating or minimizing workplace hazards needs a systematic approach. It is essential to try and anticipate all possible hazards at the workplace - known as the *'what if?'* approach.



Hazards Defined

A hazard is a source or potential source of human injury, ill health or disease. Anything which might cause injury or ill health to anyone at or near a workplace is a hazard. While some hazards are fairly obvious and easy to identify, others are not - for example exposure to noise, chemicals or radiation.

Types of Hazards

Hazards are classified into five different types:

- **physical** - includes floors, stairs, work platforms, steps, ladders, fire, falling objects, slippery surfaces, manual handling (lifting, pushing, pulling), excessively loud and prolonged noise, vibration, heat and cold, radiation, poor lighting, ventilation, air quality
- **mechanical and/or electrical** - includes electricity, machinery, equipment, pressure vessels, dangerous goods, fork lifts, cranes, hoists
- **chemical** - includes chemical substances such as acids or poisons and those that could lead to fire or explosion, cleaning agents, dusts and fumes from various processes such as welding
- **biological** - includes bacteria, viruses, mould, mildew, insects, vermin, animals
- **psychosocial environment** - includes workplace stressors arising from a variety of sources.

Note that some physical and chemical hazards can lead to fire, explosion and other safety hazards.

Methods for Identifying Hazards

- injury and illness records - review your workers' compensation data and check the incidence, mechanism and agency of injury, and the cost to the organization. These statistics can be analyzed to alert the organization to the presence of hazards
- staying informed on trends and developments in workplace health and safety, for example via the internet or OHS publications
- reviewing the potential impact of new work practices or equipment introduced into the workplace in line with legislative requirements
- doing walk-through surveys, inspections or safety audits in the workplace to evaluate the organization's health and safety system
- considering OHS implications when analyzing work processes
- investigating workplace incidents and 'near hits' reports - in some cases there may be more than one hazard contributing to an incident

- getting feedback from employees can often provide valuable information about hazards, because they have hands-on experience in their work area
- consulting with employees, health and safety representatives and OHS Committee members
- benchmarking against or liaising with similar workplaces.

SELF – CHECK # 4.1-1

Direction: Choose the correct answer from the choices given.

- _____ 1. Anything which may cause injury or ill.
- a. hazard b. risk c. chemical d. illness
- _____ 2. This hazard includes floors, stairs, work platforms, steps, ladders, fire, falling objects, slippery surfaces, manual handling (lifting, pushing, pulling), excessively loud and prolonged noise, vibration, heat and cold, radiation, poor lighting, ventilation, air quality
- . a.. Physical b. Mechanical/Electrical
- c. Chemical d. Biological
- _____ 3. This hazard includes electricity, machinery, equipment, pressure vessels, dangerous goods, fork lifts, cranes, hoists
- a. Physical b. Mechanical/Electrical
- c. Chemical d. Biological
- _____ 4. This hazard includes chemical substances such as acids or poisons and those that could lead to fire or explosion, cleaning agents, dusts, fibers, mists, gases, vapors and fumes from various processes such as welding
- a.. Physical .b. Mechanical/Electrical
- .c. Chemical d. Biological
- _____ 5. This hazard includes bacteria, viruses, mold, mildew, insects, vermin, animals, plants, parasites, mites and fungi.
- a. Physical b. Mechanical/Electrical
- c. Chemical . d. Biological

ANSWER KEY # 4.1-1

1. A
2. A
3. B
4. C
5. D

INFORMATION SHEET 4.1-2

Organizational Safety and Health Protocol

Learning Objectives: After reading this information sheet, the student/trainee should be able to;

1. Discuss safety protocols.
2. Demonstrate their commitment to ensure health and safety measures
In their workplace.

Organizational safety and Health Protocols

Internal Factors Impacting Workplace Health & Safety

Companies must ensure that employees are protected from safety and health hazards.



The administration of an organization can pose health and safety risks if the internal environment is not maintained and monitored appropriately by a company. Business executives must adopt safety behaviors into their leadership practices, since companies are charged with the task of ensuring the health and safety of their staff. As such, organizations should examine what steps they can take in order to protect employees from risks and dangers.

1. Internal Factors

- The attitude a business has towards maintaining the health and safety of its employees is an internal factor that employees rely on to be protected from dangers and threats in the workplace. According to the U.S. Department of Labor Occupational Safety and Health Administration (OSHA), employees have the right to feel safe while on the job, and employers have the obligation to ensure their safety. There are many ways that businesses can effectively manage the health and safety of their employees.

Safety Councils

- Businesses can demonstrate their commitment to ensuring health and safety measures by creating safety management councils. These committees may be in charge of evaluating workplace conditions and employee health risks, and then taking the proper measures to make sure the office is well-equipped to deal with any threats. Safety councils are often responsible for creating safety protocols and performing safety drills.

Safety Protocols

- . Developing safety protocols allows companies to keep written policies and procedures about how to prevent hazards from occurring in the workplace, as well as provide instructions on how to respond if employees' health or safety are threatened. Safety protocols should be easily accessible for anyone in the company to review.

Education

- Education is an effective way for businesses to maintain their commitment to safety. By providing training modules to employees, employers can educate staff on things like how to stay healthy during flu season, how to prevent physical injuries on the job, how to keep work areas sanitized and how to use protective equipment in the case of emergencies.

Conducting Safety Drills

- Disaster drills are valuable because they teach people how to respond in a time of urgency. Such exercises prepare people to coordinate efforts and put their safety skills to work. Many businesses conduct safety drills, such as fire or disaster drills, to keep employees on their toes about how to respond in the case that their safety is in danger.

These sorts of exercises are important, so employers may gather statistics, such as how long evacuations take, which can then be used to determine more effective and efficient ways to keep employees safe.

SELF-CHECK 4.1-2

Learn your mastery in Information Sheet 2 by answering the questions below.

Test 1. Write TRUE if the statement is correct and write FALSE if the statement is incorrect.

_____ 1. Establishing safety protocols for the workplace is another way that companies can positively impact employee health and safety

_____ 2. safety protocols allows companies to keep written policies and procedures about how to prevent hazards from occurring in the workplace, as well as provide instructions on how to respond if employees' health or safety are threatened.

_____ 3. The administration of an organization cannot pose health and safety risks if the internal environment is not maintained and monitored appropriately by a company.

_____ 4 Companies must ensure that employees are protected from safety and health hazards.

..

_____ 5. Education is an effective way for businesses to maintain their commitment to safety

The trainee's underpinning knowledge was

Satisfactory Not Satisfactory

ANSWER KEY 4.1-2

1. True
2. True
3. False
4. True
5. True

INFORMATION SHEET 4.1-3

Threshold Limit Value

Learning Objectives: After reading this information sheet, the student/trainee should be able to;

1. Prevent exposure to substances which could be hazardous to their health.
2. Distinguish appropriate types of measurement that can affect the health.

The key to preventing exposure to substances, which could be hazardous to health, depends on the first two steps mentioned – recognition of the hazard or potential hazard, and, evaluation of the extent of the hazard. People in the workplace may encounter hazards from several sources. An important means of evaluation is measurement to determine the extent of the threat.

MEASUREMENT – WHICH TECHNIQUE

The health effects of exposure to toxic substances can be acute or chronic. It will therefore be necessary to distinguish appropriate types of measurement:

1. Long term measurements which assess the average exposures of a person over an extended time period.
2. Continuous measurements capable of detecting short-term exposures to high concentrations of short-term exposure to high concentrations of contaminants, which cause an acute exposure.



3. Spot readings can be used to measure acute hazards if the exact point of time of exposure is known and the measurement is taken at that time, chronic hazards may be assessed if a significant number of measurements are made.

SUMMARY OF MANAGEMENT TECHNIQUES

For chronic hazards - continuous personal dose measurements, continuous measurement of average background levels, spot readings of contaminant levels at selected positions and times.

For acute hazards; – continuous personal monitoring with rapid response, continuous background monitoring with response, spot readings of background contaminant levels as selected positions and times.

For analysis of whether area is safe to enter: direct reading instruments. Particle qualitative and quantitative analysis can be carried out by direct reading measurements

SELF-CHECK 4.1-3

Learn your mastery in Information Sheet 3 by answering the questions below:

Test 1. Write TRUE if the statement is correct and write FALSE if the statement is incorrect.

1. The health effects of exposure to toxic substances can always be acute.
2. People in the workplace may encounter hazards from several sources.
3. Spot readings can be used to measure acute hazards if the exact point of time of exposure is known and the measurement is taken at that time,
4. Particle qualitative and quantitative analysis can be carried out by direct reading measurements.
5. The key to prevent exposure to substances can always be hazardous to our health.

The trainee's underpinning knowledge was
 Satisfactory Not Satisfactory

ANSWER KEY 4.1-3

1. False
2. True
3. True
4. True
5. False

INFORMATION SHEET 4.1-4

Occupational Health and Safety Indicators

Learning objectives:

Learning Objectives: After reading this information sheet, the student/trainee should be able to;

1. Know what is an occupational health and its indicators
2. Identify trends and patterns of work-related injury, illness, and death

Health and Safety Indicators



What is an occupational health and safety indicator?

An occupational health and safety indicator is a specific measure of a work-related disease or injury, or a factor associated with occupational health, such as workplace exposures, hazards, or interventions, in a specified population. Indicators can be generated by states to track trends in the occupational health status of the working population. Examples of occupational health indicators include counting the number of work-related deaths and work-related pesticide poisonings.

Why use occupational health and safety indicators?

- Measure baseline health of worker populations
- Identify trends and patterns of work-related injury, illness, and death
- Anticipate early problem areas that deserve attention
- Reduce preventable workplace injuries
- Increase consistency and availability of occupational disease and injury surveillance data

What occupational health indicators are generated?

Most state public health or labor departments calculate the 19 occupational health indicators listed below. Depending on the type of industries and jobs in a state and the availability of data, some states have developed additional indicators to better measure worker health in their state. At the current time,



Table 1. The 19 occupational health and safety indicators

Occupational Illnesses and Injuries Combined

Indicator 1: Non-fatal injuries and illnesses reported by employers

Indicator 2: Work-related hospitalizations

Acute and Cumulative Occupational Injuries

Indicator 3: Fatal work-related injuries

Indicator 4: Amputations reported by employers

Indicator 5: Amputations identified in state workers' compensation systems

Indicator 6: Hospitalizations for work-related burns

Indicator 7: Musculoskeletal disorders reported by employers

Indicator 8: Carpal tunnel syndrome cases identified in state workers' compensation systems

Occupational Illnesses

Indicator 9: Pneumoconiosis hospitalizations

Indicator 10: Pneumoconiosis mortality

Indicator 11: Acute work-related pesticide poisonings reported to poison control centers

Indicator 12: Incidence of malignant mesothelioma

Occupational Exposures

Indicator 13: Elevated blood lead levels among adults

Occupational Hazards

Indicator 14: Workers employed in industries with high risk for occupational morbidity

Indicator 15: Workers employed in occupations with high risk for occupational morbidity

Indicator 16: Workers employed in industries and occupations with high risk for occupational mortality

Intervention Resources for Occupational Health

Indicator 17: Occupational safety and health professionals

Indicator 18: Occupational safety and health administration (OSHA) enforcement activities

Socioeconomic Impact of Occupational Illnesses and Injuries

Indicator 19: Workers' compensation awards

Common health and safety indicators can be divided into two – frequency rates and incidence rates. So what's the difference?

A **frequency rate** is an expression of how many events happened over a given period of time by a standardized number of hours worked. An

incidence rate is the number of events that happened over a given period time by a standardized number of employees (usually lower than the standardized number of hours).

SELF-CHECK 4.1-4

IDENTIFICATION : Identify the following:

1. A specific measure of a work-related disease or injury, or a factor associated with occupational health, such as workplace exposures, hazards, or interventions, in a specified population.
2. An expression of how many events happened over a given period of time by a standardized number of hours worked.
3. The number of events that happened over a given period time by a standardized number of employees (usually lower than the standardized number of hours).

ANSWER KEY 4.1-4

1. Occupational health and safety indicator
2. Frequency rate
3. Incidence rate

LEARNING OUTCOME # 2	Evaluate Hazards and Risks
<p>CONTENT:</p> <ul style="list-style-type: none"> • Phil OHS Standards • Effects of hazards in the workplace • Ergonomics • Employees Compensation Commission (ECC) Regulation 	
<p>ASSESSMENT CRITERIA:</p> <ol style="list-style-type: none"> 1. Terms of maximum tolerable limits are identified based on threshold limits values (TLV) 2. Effects of hazards are determined. 3. OHS issues and concerns are identified in accordance with workplace requirements and relevant workplace OHS legislation. 	
<p>CONDITONS:</p> <p>The students/ trainee must be provided with the following</p> <ul style="list-style-type: none"> • Handout on <ul style="list-style-type: none"> - Phil. OHS Standards - Effects of hazards in the workplace - Ergonomics - ECC regulations • TLV Table • CD'S VHS tapes, Transparencies 	
<p>METHODOLOGIES</p> <ul style="list-style-type: none"> • Inter-active lecture, Simulation, Demonstration, self-paced instruction 	
<p>ASSESSMENT METHODS:</p> <ul style="list-style-type: none"> • Written, Role playing, Interview 	

LEARNING EXPERIENCES

LEARNING OUTCOME 2 – EVALUATE HAZARDS AND RISKS

Learning Activities	Special Instruction
Learning Activities	Special Instructions
<p>1. Read, analyze and understand Information Sheet No. 4.2-1 on Occupational Health Safety Standards</p>	<p>If you have some problem on the content of the information sheet don't hesitate to approach your facilitator. If you feel that you are now knowledgeable on the content of the information sheet, you can now answer self-check provided in the module.</p>
<p>2. Answer self-check 4.2-1</p>	<p>Refer your answer to answer key 4.2-1</p>
<p>3. Read Information sheet 4.2-2 On Effects of hazards in the workplace</p>	<p>If you have some problem on the content of the information sheet don't hesitate to approach your facilitator. If you feel that you are now knowledgeable on the content of the information sheet, you can now answer self-check provided in the module.</p>
<p>4. Answer self-check 4.2-2</p>	<p>Refer your answer to answer key 4.2-2</p>
<p>5. Read Information sheet 4.2-3 on Ergonomics</p>	<p>If you have some problem on the content of the information sheet don't hesitate to approach your facilitator. If you feel that you are now knowledgeable on the content of the information sheet, you can now answer self-check provided in the module.</p>
<p>6. Answer self-check 4.2-3</p>	<p>Refer your answer to answer key 4.2-3</p>
<p>7. Read information sheet 4.2-4 on Employees Compensation Commission</p>	<p>If you have some problem on the content of the information sheet don't hesitate to approach your facilitator. If you feel that you are now knowledgeable on the content of the information sheet, you can now answer</p>

	self-check provided in the module.
8. Answer self-check 4.2-3	Refer your answer to answer key 4.2-3

INFORMATION SHEET 4.2-1 OCCUPATIONAL HEALTH AND SAFETY STANDARDS

Learning objective: After reading this information sheet, you must be able to: know the main laws regarding health and safety in the workplace.

Main laws and regulations regarding health and safety in the workplace, every employee and employer should be aware of are:

Manual handling operations in 1992
Substances Control Health Regulations 2002 (COSHH) (and Miscellaneous Amendments)
4.2

The Health and Safety at Work Act 1974: This law requires that: Employers must ensure the health and safety for employees, providing them with safe investments, handling, storage and transportation of goods, providing information, training and support, giving them secure jobs and secure environment and facilities.

Organizations must have five or more employees of a policy statement on health and safety Implementation of the policy update and the same when necessary and avoid the risk of their other activities.

Operation Manual Handling Regulation 1992:
Manual handling means bringing a load of hand and physical strength, such as lifting, putting down, pushing, etc. The employer must:
Hotel management should redesign the movement of the load by automatic procedures

Employees should be provided with the proper disposal Information about the weight of each load and its downside.

Mechanical aids such as trolleys, left should, lifting equipment are available.

Employees from hazardous substance risk assessment must

When working in a confined space, employees must have safe systems of work.

Before any work begins, should be adequate emergency measures are made.

Control of Substances Hazardous to Health Regulations 2002.

This law requires employers to assess risks to the health of employees work and sit on hazardous substances. They should be provided with health surveillance and medical records available to be stored for 40 years.

Work areas must be free from interference

Floor holes, cracks are loose mats are checked regularly.

Slippery-debris should be cleaned with cleaning equipment and procedures.

People need to warn of wet floors and alternative routes will be made available. Processing machines must be organized and to avoid Losses.

Electric cables must be properly positioned to avoid the final cable.

Covers should be used to secure the cables on the bottom.

If soils are wet and dusty, safety shoes for employees should be made available

Changes in ground level and tends to characterize.

Mats should be placed between wet and dry environments.

Create a great sense of safety signs, posters Bathroom and shower valves to maintain pressure and temperature, providing a pre-mix of hot and cold water and automatic adaptation to changes in the system should be chosen.

The hotel management has focused on other security measures to ensure are:

Room doors should close and lock automatically.

Emergency lighting should be tested monthly

Output port must be clearly visible

A key provision of the work If the keys are not present, it should be replaced Landscape design should be clean, but not to provide hiding places for criminals.

Adequate lighting in parking lots, walkways and exposed areas.

Art. 165. Administration of safety and health laws.

- a. The Department of Labor and Employment shall be solely responsible for the administration and enforcement of occupational safety and health laws, regulations and standards in all establishments and workplaces wherever they may be located; however, chartered cities may be allowed to conduct industrial safety inspections of establishments within their respective jurisdictions where they have adequate facilities and competent personnel for the purpose as determined by the Department of Labor and Employment and subject to national standards established by the latter.
- b. The Secretary of Labor and Employment may, through appropriate regulations, collect reasonable fees for the inspection of steam boilers, pressure vessels and pipings and electrical installations, the test and approval for safe use of materials, equipment and other safety devices and the approval of plans for such materials, equipment and devices. The fee so collected shall be deposited in the national treasury to the credit of the occupational safety and health fund and shall be expended exclusively for the administration and enforcement of safety and other labor laws administered by the Department of Labor and Employment

SELF-CHECK 4.2-1

TRUE OR FALSE. Write true if the statement is correct and write false if the statement is incorrect.

1. Employees should not be provided with the proper disposal Information about the weight of each load and its downside.
2. Room doors should not be close and lock automatically
3. Organizations must have five or more employees of a policy statement on health and safety Implementation of the policy update and the same when necessary and avoid the risk of their other activities.
4. When working in a confined space, employees must have safe systems of work
5. Manual handling means bringing a load of hand and physical strength, such as lifting, putting down, pushing, etc

ANSWER KEY

1. False

2. False

3. True

4. True

5. True

INFORMATION SHEET 4.2-2

Effects of Hazards in the Workplace

Learning objective: After reading this information sheet, you must be able to: know the effects of hazards in the workplace.

Occupational hazard or occupational evil or gift/reward of an occupation etc. you may call it by any name; the fact is that every occupation will have a positive as well as negative effect in people. The impact of such an effect & the extent of scarring it makes in a person have to be ascertained as a part of solution and should not tend to follow the philosophy of avoiding such occupational hazards as best options. If such were the choice, then one has to meditate till death by sitting under a tree without taking up any job.

We may loudly think that only employees in the factory are susceptible to such problems. But truth is that every employee is susceptible to such occupation related problems. The problems are more pronounced in people who spent long years in an organization.

Generally perceived understanding about occupation related problems are limited to physical deformities. For example the people who are working in tanneries prone to develop skin related problems while people in the quarries will tend to develop more of upper respiratory problems. Many such examples we can cite to show what occupational hazards are.

To minimize the risk due to an occupation, various regular medical check ups have been done and made them mandatory for industry. The

unexplained or unexplored area in occupational hazard is the non-physical deformities or damages such as behavioural, attitudinal and psychodynamic aspects as a result of occupation.

Are we sensitive about such occupational problems? Are these problems not posing a serious concern in the society? Do we have any methodologies to check the level of damage different employees carries with them and how to treat those problems? Are we mapping people as 'risk groups' and 'critical' based on the mental hazard limit?

Different survival needs in people in corporate make them to be 'the worst' or 'the best'.

Does the organization have the responsibility to make 'the worst' to 'better' if not 'the best'?

Similar to occupational hazards in human world, plants do show certain pattern in the accumulation of secondary metabolites that are highly locality or geography specific. The same species of plant show different chemical constituents and profile living in different regions of the globe. Similarly, the same species of animals living in different parts of the world do behave differently. The strange scavenging behaviour is seen in lions in some regions while they maintain their 'pride' as top predator in some other regions.

For example, a mechanic speak a lot about machine while a driver love to engage in talking more about vehicle and painter definitely about paints. The people progressively get addicted to a pattern of thinking and behaving is the finest sign or symptom for the early diagnosis of occupational hazard.

A cosmetic formulator always looks at the fineness of anything and everything by default.

It is not the physical disability due to occupational hazard cause major problem but the mental or behavioural disability is the major area of concern. Diagnose the problem early and treat it immediately. If the employees keep changing the organization frequently, they can limit the hazard to a great extent as the employees will constantly learn and apply different techniques to survive than using a same stale method.

If people visit different places frequently are generally expected to get exposed to different microbes/pathogens and may develop disease. But it is true only to microbial diseases and if one wants to minimize the occupational hazard, multiple exposures and frequent change of organization is must.

Do you want to be a diseased person by continuing in the same organization or be healthy by changing the job and the organization frequently as far as the occupational hazard is concerned, choice is yours.

SELF-CHECK 4.2-2

TRUE OR FALSE. Write true if the statement is correct and write false if the statement is incorrect.

1. Every occupation will have a positive as well as negative effect in people.
2. Different survival needs in people in corporate make them to be 'the worst' or 'the best'.
3. Every employee is susceptible to such occupation related problems.
4. The problems are more pronounced in people who spent long years in an organization.
5. Only employees in the factory are susceptible to hazards in the workplace.

ANSWER SHEET 4.2-2

- 1. True**
- 2. True**
- 3. True**
- 4. True**
- 5. False**

INFORMATION SHEET 4.2-3

ERGONOMICS

Learning objectives : After reading this information sheet, you must be able to:

1. Identify ergonomics
2. Know the components of ergonomics

What is Ergonomics?

Most people have heard of ergonomics and think it is something to do with seating or with the design of car controls and instruments. It is...but it is much more! Ergonomics is the application of scientific information concerning humans to the design of objects, systems and environment for human use. Ergonomics comes into everything which involves people. Work systems, sports and leisure, health and safety should all embody ergonomics principles if well designed.

Why was the video recorder one of the most frustrating domestic items to operate? Why do some car seats leave you aching after a long journey? Why do some computer workstations confer eyestrain and muscle fatigue? Such human irritations and inconveniences are not inevitable - ergonomics is an approach which puts human needs and capabilities at the focus of designing technological systems. The aim is to ensure that humans and technology work in complete harmony, with the equipment and tasks aligned to human characteristics.

Ergonomics has a wide application to everyday domestic situations, but there are even more significant implications for efficiency, productivity, safety and health in work settings. For example:

- * Designing equipment and systems including computers, so that they are easier to use and less likely to lead to errors in operation - particularly important in high stress and safety-critical operations such as control rooms. Designing tasks and jobs so that they are effective and take account of human needs such as rest breaks and sensible shift patterns, as well as other factors such as intrinsic rewards of work itself.
- * Designing equipment and work arrangements to improve working posture and ease the load on the body, thus reducing instances of Repetitive Strain Injury/Work Related Upper Limb Disorder.
- * Information design, to make the interpretation and use of handbooks, signs, and displays easier and less error-prone.
- * Design of training arrangements to cover all significant aspects of the job concerned and to take account of human learning requirements.
- * In developing countries, the acceptability and effectiveness of even fairly basic technology can be significantly enhanced.

The multi-disciplinary nature of ergonomics (sometimes called 'Human Factors') is immediately obvious. The ergonomist works in teams which may involve a variety of other professions: design engineers, production engineers, industrial designers, computer specialists, industrial physicians, health and safety practitioners, and specialists in human resources. The overall aim is to ensure that our knowledge of human characteristics is brought to bear on practical problems of people at work and in leisure. We know that, in many cases, humans can adapt to unsuitable conditions, but such adaptation leads often to inefficiency, errors, unacceptable stress, and physical or mental cost.

The components of ergonomics

Ergonomics deals with the interaction of technological and work situations with the human being. The basic human sciences involved are anatomy, physiology and psychology, these sciences are applied by the ergonomist towards two main objectives: the most productive use of human capabilities, and the maintenance of human health and well-being. In a phrase, the job must 'fit the person' in all respects, and the work situation should not compromise human capabilities and limitations.

The contribution of basic anatomy lies in improving physical 'fit' between people and the things they use, ranging from hand tools to aircraft cockpit design. Achieving good physical fit is no mean feat when one considers the range in human body sizes across the population. The science of anthropometrics provides data on dimensions of the human body, in various postures. Biomechanics considers the operation of the muscles and limbs, and ensures that working postures are beneficial, and that excessive forces are avoided.

Our knowledge of human physiology supports two main technical areas. Work physiology addresses the energy requirements of the body and sets standards for acceptable physical work rate and workload, and for nutrition requirements. Environmental physiology analyses the impact of physical working conditions - thermal, noise and vibration, and lighting - and sets the optimum requirements for these.

Psychology is concerned with human information processing and decision-making capabilities. In simple terms, this can be seen as aiding the cognitive 'fit' between people and the things they use. Relevant topics are sensory

processes, perception, long- and short-term memory, decision making and action. There is also a strong thread of organizational psychology.

The importance of psychological dimensions of ergonomics should not be underestimated in today's 'high-tech' world - remember the video recorder example at the beginning. The ergonomist advises on the design of interfaces between people and computers (Human Computer Interaction or HCI), information displays for industrial processes, the planning of training materials, and the design of human tasks and jobs. The concept of 'information overload' is familiar in many current jobs. Paradoxically, increasing automation, while dispensing with human involvement in routine operations, frequently increases the mental demands in terms of monitoring, supervision and maintenance.

The ergonomics approach - understanding tasks ... and the users

Underlying all ergonomics work is careful analysis of human activity. The ergonomist must understand all of the demands being made on the person, and the likely effects of any changes to these - the techniques which enable him to do this come under the portmanteau label of 'job and task analysis'.

The second key ingredient is to understand the users. For example, 'consumer ergonomics' covers applications to the wider contexts of the home and leisure. In these non-work situations the need to allow for human variability is at its greatest - the people involved have a very wide range of capabilities and limitations (including the disabled and elderly), and seldom have any selection or training for the tasks which face them.

This commitment to 'human-centred design' is an essential 'humanizing' influence on contemporary rapid developments in technology, in contexts ranging from the domestic to all types of industry.

SELF-CHECK 4.2-3

1. The ergonomist works in teams which may involve a variety of other professions: design engineers, production engineers, industrial designers, computer specialists, industrial physicians, health and safety practitioners, and specialists in human resources.
2. 'human-centred design' is an essential 'humanizing' influence on contemporary rapid developments in technology, in contexts ranging from the domestic to all types of industry.
3. The ergonomist advises on the design of interfaces between people and computers (Human Computer Interaction or HCI), information displays for industrial processes, the planning of training materials, and the design of human tasks and jobs.
4. Ergonomics deals with the interaction of technological and work situations with the human being.
5. Ergonomics comes into everything which involves people. Work systems, sports and leisure, health and safety should all embody ergonomics principles if well designed.

ANSWER KEY

1. True
2. True
3. True
4. True
5. True

INFORMATION SHEET 4.2-4

Employees Compensation Commission Regulations

Learning objectives: After reading this information sheet, you must be able to know the importance of ECC regulations.



The Employees Compensation Commission is part of the Philippines Department and Employment Agency in the Philippines. The goal of the program is to ensure fair job practices between employers and employees

Employees' Compensation Commission

The **Employees' Compensation Commission** is a government corporation created on November 1, 1974 by virtue of Presidential Decree 442 or the Labor Code of the Philippines. Attached to the Department of Labor and Employment, ECC provides services and benefits to both public and private sector employees.

According to Presidential Decree 626, ECC has the following functions and powers:

1. To assess and fix a rate of contributions from all employers;
2. To determine the rate of contribution payable by an employer whose records show a high frequency of work accidents or occupational disease due to failure by the said employer to observe adequate measures;
3. To approve rules and regulations governing the processing of claims and the settlement of disputes prescribed by the System;#To initiate, rationalize and coordinate the policies of the Employees Compensation Program;
4. To initiate policies and programs toward adequate occupational health and safety and accident prevention in the working environment, rehabilitation and other related programs and activities, and to appropriate funds therefore;
5. To make necessary actuarial studies and calculations concerning the grant of constant help and income benefits for permanent disability or death, and the rationalization of the benefits for permanent disability and death with benefits payable by the System for similar contingencies;
6. To upgrade benefits and add new ones subject to approval of the President of the Philippines;
7. To determine and approve additional occupational diseases and work-related illnesses with specific criteria based on peculiar hazards of employment; and

8. To review and decide appealed cases.

Programs, Projects and Activities

The Programs, Projects and Activities (PPAs) of the ECC are classified into five (4) Key Result Areas (KRAs). Below are the brief description of these KRAs and PPAs:

KRA 1: EC Appealed Claims Disposition

One of the reasons for implementing the Employees Compensation Program (ECP) is the EC appealed claims disposition. It focuses on the need to ensure the prompt and expeditious settlement of all EC claims whether filed at the Systems or on appeal at the Commission. The program under this Key Result Area is:

1.1 Speedy Disposition of EC Appealed Claims - This involves the evaluation and adjudication of all EC claims elevated to the Commission after denial by the System. A system of monitoring/tracking every action taken on the case has been installed to ensure prompt disposition of appealed EC claims. Among noteworthy projects to promptly and judiciously evaluate EC appealed claims and to ensure that EC claimants are served promptly, efficiently and effectively in this regard are the following:

- Evaluation of EC Appealed Claims
- Policy Development
- Legal Action on Delinquent Hospital Loans
- Legal Advisory

KRA 2: Work Contingency Prevention Services

Work Contingency Prevention is necessary if we have to spare the workers and their families from the problems and pain that come along with any work-connected sickness, injury or death. At the ECC, it is our wish that the workers would rather not avail of the employees' compensation benefits, meaning they do not get sick or injured while at work because to do so would mean financial, emotional and psychological costs to the workers and their families.

Besides, the EC benefits are not that substantial. The program under this Key Result Area is:

2.1 Work Contingency Prevention Services - The WCP program is designed to help ease the problem of increasing number of workers who either become disabled or died due to occupational injuries or diseases. The aim is to promote health and protection of workers in the workplaces by raising the employers and workers awareness on the value of adopting and observing appropriate preventive measures. The program also assists companies in developing sectoral action plans for implementation within a year to reduce the number of workers affected by identified occupational diseases and injuries that are frequently claimed by occupationally disabled workers. This is done by facilitation of linkages with other agencies, GOs, NGOs and other specialty group involved in the prevention and control of occupational diseases and injuries. Hence, our focus on work contingency prevention which involves, among others, the following:

- ECP Advocacy Activities
- OSH Awareness Generation
- TB Prevention in the Workplace
- OSH Related Article for ECC Reporter

KRA 3: Rehabilitation Services

The rehabilitation of the occupationally disabled workers (ODWs) gives new hope and brings life to our ODWs. Its primary objective is to bring back the ODWs into the economic mainstream as productive members of society through rehabilitative services. The program that is being pursued in this regards is:

3.1 Rehabilitation of ODWs Program - The main objective is to facilitate the integration of ODWs into the economic mainstream as productive and self-reliant members of society. The following are the projects under this program:

- ECC-Quick Response to ODWs - This project aims to provide immediate assistance to workers or their families within a week in the event of major work accidents or outbreak of

occupational diseases at the workplace. The ECC intervention includes psycho-social counselling services, medical help and assistance in the filing of the necessary claims with the System.

- KAGABAY Program - "Katulong at Gabay sa Manggagawang May Kapansanan" or KaGaBay is a special assistance project to occupationally-disabled workers (ODWs) aimed at facilitating their re-integration into the economic mainstream either through vocational skills training and placement assistance or through entrepreneurial training and assistance in the setting-up a micro-enterprise or home-based business.
- Physical Restoration of ODWs - This is another special assistance project to facilitate ECC-funded rehabilitation services for ODWs lie physical therapy by partner hospitals and provision of free rehabilitation appliances.

KRA 4: Support Services

The programs, projects and activities implemented to support the operations are essential to achieve the ECC target performance for any given year. These are the following:

4.1 ECP Information Dissemination - This program is designed to increase public awareness on the Employees Compensation Program (ECP) and Work Contingency Prevention (WCP) and to ensure at all times that workers are informed of their rights, benefits and privileges under the ECP. This includes publication of press releases in broadsheets, tabloids and regional papers, linkages with radio and TV networks for possible participation in public affairs programs/interviews, distribution of IEC materials to ECC clients as well as conduct of lectures on ECP and WCP. The projects under this program are:

- Development/Production of IEC Materials - This project aims to ensure that reader-friendly WCP/ECP materials are continually developed. This involves three important

activities, namely: (1) Development and printing of information materials such as flyers, posters, ads, audio visual presentation materials and other related information; (2) Bi-monthly publication of ECC Reporter designed to inform ECC's specific publics of the latest on employees' compensation policies, case decisions, OSH research findings on work contingency prevention and others; and (3) Re-printing and distribution of existing IEC materials.

- Intensification of ECP Information Campaign - This involves the conduct of seminars/lectures on the ECP and WCP right at the workplaces in coordination with the employers and the employees' unions. Target participants of WCP/ECP seminars/lectures are rank and file workers, labor union representatives and human resource officers. This also includes publication of press releases in broadsheets, tabloids and regional papers, airing of infomercials on radio, television and the cinema as well as linkages with radio and TV networks for possible participation in public affairs programs/interviews and distribution of IEC materials to ECC clients notably flyers explaining the ECP, how to file EC claims at the SSS and GSIS, on various projects of the ECC such as the Kagabay Program, the PWCA bill, and the bi-monthly newsletter, The ECC Reporter. Another important project is the Public Assistance Center (PAC) which is designed to provide personalized assistance/information to walk-in clients on how and where to file EC claim or the follow-up of the status of their claims pending at the SSS or GSIS or at the ECC and other related matters. PAC is located at the ECC ground floor for this purpose and was operationalized in 2003.

4.2 Technical Support for Policy/Program Development - The continuing review and updating of policies, programs and projects under implementation is what makes ECC services more meaningful to its clients. This program is designed to provide the agency with timely, accurate and relevant services relative to the conduct of researches/studies on ECP, statistical support, planning and monitoring of agency's programs, projects and activities (PPAs) and management of information system (MIS) in aid of policy formulation,

program development and decision making. The projects under this regards are the following:

- Maintenance of EC Claims Database - The objective is to maintain an updated database on EC claims. This will provide all the necessary data/information needed in support of policy formulation, program development, effective planning, PPA review and improvement, and the day-to-day decision making.
- Conduct of Research Studies as Inputs to Policy Formulation - This involves the conduct of necessary researches or the compilation of results of studies (local and international) presently available for use in support of policy formulation or program development/improvement.
- Passage of PWCA bill in Congress - This involves a continuing review and analysis of the implementation of the ECP given the changing conditions over time to see whether the ECP as defined in PD 626 is still effective and relevant or whether there are new concerns that need to be addressed but only through legislation.
- Conduct of Agency-Wide Planning Activities - This involves the planning and programming of all programs and activities to be undertaken by the agency for the year through a conduct of a corporate planning session which includes the review and assessment of programs and project achievements serve as input to the formulation of Agency Action Plan for the following year. The agency performance is measure through a set of target indicators that are regularly monitored through the monthly and quarterly reports prepared by each Division. The conduct of a Mid-Year Performance Assessment (MYPA) the agency enables to the agency assess its first semester performance and reformulate actions and targets for the rest of the year.
- Provision of IT support - The Information Systems Strategic Plan (ISSP) serves as the framework for the computerization projects of the ECC. For effective information management, the Plan documents the procedures and the required budget for the maintenance of the Local Area Network (LAN) and the upgrading of existing IT resources and IT trainings.

- Implementation of Gender and Development Plan - This is in support of the government's advocacy in mainstreaming of gender and development in all government programs and projects.

4.3 Finance and Administrative Support Services - This program covers the efficient and effective delivery of administrative support to operations as in the case management of records, development of effective system of maintaining the personal files/records, issuances of office orders, memorandum and other official reports and communications, the procurement of equipment and office supplies requirements, and other related matters. The following are the projects under this program:

- Finance Services - Financial management's objectives are: (1) to improve the financial records and journals reporting system; (2) comply with the requirements of the Commission on Audit and other government agencies like GSIS, PAGIBIG, BIR, Bureau of Treasury, DBM and DOLE; and (3) the processing of valid claims/billings/vouchers within the day from receipt of document. The budget management's objectives are: (1) the preparation of annual ECC Corporate Operating Budget; (2) monitoring of loading fund requests; and (3) the submission of ECC fund status report to the DOLE.
- Administrative Services - This program covers the efficient and effective delivery of administrative support to operations as in the case management records, development of effective system of maintaining the personal files/records, issuances of office orders, memorandum and other official reports and communications, the procurement of equipment and office supplies requirements, and other related matters.

4.4 Secretarial Support for Executive Director/Deputy Executive Director Concerns - This program covers the efficient and effective provision of secretarial and clerical assistance to the Executive Director and Deputy Executive Director on the performance of the function of the office.

4.5 Technical Support for Board Concerns - This program covers the efficient and effective provision of secretarial and clerical assistance to the Board on the performance of the function of the office.

4.6 Continuous Service Improvement - The aim of this program is the continuous review and improvement of existing work processes/systems and work procedures for the different programs and projects of the Commission for a more effective and efficient public service delivery. The following are the projects under this program:

- Provision of internal audit services - the aim of this project is to ascertain the accuracy, integrity and authenticity of accounting data, to test the compliance with accounting procedures, prescribed applicable laws, rules and regulations, to determine that accumulation and reporting of accounting data is in compliance with generally accepted accounting principles, and to test the safeguarding of assets.

SELF-CHECK 4.2-4

1. The goal of the ECC regulations program is to ensure fair job practices between employers and employees.
2. One of the reasons for implementing the Employees Compensation Program (ECP) is the EC appealed claims disposition
3. Work Contingency Prevention is not necessary if we have to spare the workers and their families from the problems and pain that come along with any work-connected sickness, injury or death
4. The WCP program is designed to help ease the problem of increasing number of workers who either become disabled or died due to occupational injuries or diseases.
5. The rehabilitation of the occupationally disabled workers (ODWs) gives new hope and brings life to our ODWs. Its primary objective is to bring back the ODWs into the economic mainstream as productive members of society through rehabilitative services.

ANSWER KEY

- 1. True**
- 2. True**
- 3. False**
- 4. True**
- 5. True**

Learning Outcome 3: Control Hazards and Risks

CONTENTS:

- Safety Regulation
- Contingency Measures and Procedures

Assessment Criteria:

1. OHS procedures for controlling hazards and risks are strictly followed.
2. Procedure in dealing with workplace accidents, fire and emergencies are followed in accordance with the organization.
3. Personal protective equipment is correct used in accordance with organization's OHS procedure and practices.
4. Procedures in providing appropriate assistant in the event of workplace emergencies are identified in line with the established organizational protocol.

CONDITIONS:

- Handouts
 - Safety Regulations
 - Clean Air Act
 - Electrical and fire Safety Code
 - Waste management
 - Disaster Preparedness and management
 - Contingency Measures and Procedures
 - OHS Personal Records
- PPE
- CD'S, VHS tapes, transparencies

ASSESSMENT METHODS:

- Written
- Interview
- Simulation

LEARNING EXPERIENCES

LO3. Control Hazards and Risks

Learning Activities	Special Instruction
Learning Activities	Special Instructions
<p>1.Read, analyze and understand Information Sheet No.4.3-1</p> <p style="text-align: center;">Safety Regulations</p>	<p>If you have some problem on the content of the information sheet don't hesitate to approach your facilitator.</p> <p>If you feel that you are now knowledgeable on the content of the information sheet, you can now answer self-check provided in the module.</p>
<p>2.Answer self-check 4.3-1</p>	<p>Refer your answer to answer key 4.3-1</p>
<p>3.Read Information sheet 4.3-2 On Contingency measures and procedures</p>	<p>If you have some problem on the content of the information sheet don't hesitate to approach your facilitator.</p> <p>If you feel that you are now knowledgeable on the content of the information sheet, you can now answer self-check provided in the module.</p>
<p>4.Answer self-check 4.3-2</p>	<p>Refer your answer to answer key 4.3-2</p>

INFORMATION SHEET 4.3-1

Safety Regulations

Learning objectives: Learning objectives: After reading this information sheet, the learner should identify and differentiate the different safety regulations.

1.Clean Air Act

The law has been in place for twelve years now, and much as we have been able to achieve a lot, especially in terms of the reduction of total suspended particulates (TSP) level, or the introduction of alternative fuels in the country, we still have a lot to do. Mobile source, in fact, remains the top most source of air pollution in the country,.



As one of the DENR's active partners in implementing the Clean Air Act, the Partnership for Clean Air (PCA) stressed the need to strengthen partnerships and coordinated action toward cleaner air.

“Despite significant advances since the implementation of RA 8749, the challenges we face remain formidable and will test our resolve. We need to

forge more alliances not just between classes and among sectors but reaching across generations, because the struggle for clean air should represent in the end the confluence of diverse efforts that many Filipinos today are involved in.

Principle of Clean Air Act:.

The State shall protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature.

The State shall promote and protect the global environment to attain sustainable development while recognizing the primary responsibility of local government units to deal with environmental problems.

The State recognizes that the responsibility of cleaning the habitat and environment is primarily area-based.

The State also recognizes the principle that "polluters must pay".

Finally, the State recognizes that a clean and healthy environment is for the good of all and should therefore be the concern of all.

2. Fire code

"Revised Fire Code of the Philippines of 2008".

It is the policy of the State to ensure public safety and promote economic development through the prevention and suppression of all kinds of destructive fires and promote the professionalization of the fire service as a profession. Towards this end, the State shall enforce all laws, rules and regulations to ensure adherence to standard fire prevention and safety measures, and promote accountability for fire safety in the fire protection service and prevention service.

Fire Safety

at pppst.com



Fire safety

Fire safety refers to precautions that are taken to prevent or reduce the likelihood of a fire that may result in death, injury, or property damage, alert those in a structure to the presence of a fire in the event one occurs, better enable those threatened by a fire to survive, or to reduce the damage caused by a fire. Fire safety measures include those that are planned during the construction of a building or implemented in structures that are already standing, and those that are taught to occupants of the building.

Threats to fire safety are referred to as *fire hazards*. A fire hazard may include a situation that increases the likelihood a fire may start or may impede escape in the event a fire occurs.

Fire safety is often a component of building safety. Those who inspect buildings for violations of the Fire Code and go into schools to educate children on Fire Safety topics are fire department members known as *fire prevention officers*. The Chief Fire Prevention Officer or Chief of Fire Prevention will normally train newcomers to the Fire Prevention Division and may also conduct inspections or make presentations.

A fire safety station at a high school. Fire hoses built into a structure can sometimes be used by occupants to mitigate fires while the fire department is responding.

Key elements of a fire safety policy

- Building a facility in accordance with the version of the local building code
- Maintaining a facility and conducting yourself in accordance with the provisions of the fire code. This is based on the occupants and operators of the building being aware of the applicable regulations and advice.

Examples of these include:

- Not exceeding the maximum occupancy within any part of the building.
- Maintaining proper fire exits and proper exit signage (e.g., exit signs pointing to them that can function in a power failure)
- Placing and maintaining fire extinguishers in easily accessible places.
- Properly storing/using, hazardous materials that may be needed inside the building for storage or operational requirements (such as solvents in spray booths).
- Prohibiting flammable materials in certain areas of the facility.
- Periodically inspecting buildings for violations, issuing Orders To Comply and, potentially, prosecuting or closing buildings that are not in compliance, until the deficiencies are corrected or condemning it in extreme cases.
- Maintaining fire alarm systems for detection and warning of fire.
- Obtaining and maintaining a complete inventory of firestops.
- Ensuring that spray fireproofing remains undamaged.
- Maintaining a high level of training and awareness of occupants and users of the building to avoid obvious mistakes, such as the propping open of fire doors.
- Conduct fire drills at regular intervals throughout the year.

Common fire hazards



Improper use and maintenance of gas stoves often create fire hazards.

Some common fire hazards are:

- Electrical systems that are overloaded, resulting in hot wiring or connections, or failed components
- Combustible storage areas with insufficient protection
- Combustibles near equipment that generates heat, flame, or sparks
- Candles
- Smoking (Cigarettes, cigars, pipes, lighters, etc.)
- Equipment that generates heat and utilizes combustible materials
- Flammable liquids
- Fireplace chimneys not properly or regularly cleaned
- Cooking appliances - stoves, ovens
- Heating appliances - wood burning stoves, furnaces, boilers, portable heaters
- Electrical wiring in poor condition
- Batteries
- Personal ignition sources - matches, lighters
- Electronic and electrical equipment
- Exterior cooking equipment - BBQ
- Campfires

List of some typical fire and explosion issues in a fire code

- fireworks, explosives, mortars and cannons, model rockets (licenses for manufacture, storage, transportation, sale, use)
- certification for servicing, placement, and inspecting fire extinguishing equipment
- general storage and handling of flammable liquids, solids, gases (tanks, personnel training, markings, equipment)
- limitations on locations and quantities of flammables (e.g., 10 liters of gasoline inside a residential dwelling)
- specific uses and specific flammables (e.g., dry cleaning, gasoline distribution, explosive dusts, pesticides, space heaters, plastics manufacturing)
- permits and limitations in various building occupancies (assembly hall, hospital, school, theater, elderly care, child care, prs that require a smoke detector, sprinkler system, fire extinguisher, or other specific equipment or procedures)
- removal of interior and exterior obstructions to emergency exits or firefighters and removal of hazardous materials
- permits and limitations in special outdoor applications (tents, asphalt kettles, bonfires, etc.)
- other hazards (flammable decorations, welding, smoking, bulk matches, tire yards)
- Electrical safety code
- Fuel gas code

Enforcement of the Fire Code of the Philippines

- Processing and review of building plans
- Fire safety inspection of buildings, establishments and other structures or facilities covered by its implementing law



Protecting Your Life and property: Fire-proofing yourself

1. Eliminate fire hazards through good housekeeping. Regularly dispose of waste papers, rubbish, and other flammable materials.
2. Keep matches out of children's reach.
3. Oil, gas, lamps, and candles should be placed away from curtains. Put out the flame before going to bed.
4. Do not keep flammable materials like gasoline, alcohol, and paint inside the house.
5. Regularly check electrical installations, and have all frayed wirings and electrical fixtures changed or repaired by a licensed electrician.

6. Do not overload electrical circuits by plugging additional lights and electrical appliances.
7. Blown fuses should not be replaced with wires or any metal.
8. Never leave a lighted cigarette/ cigar/ pipe unattended that may fall on flammable materials and start a fire.
9. Always turn off and unplug all electrical appliances.
10. Never leave the gas stove while cooking.
11. Always have a handy first-aid kit in the house.

3. Waste Management

Health Care Facilities must be committed to waste management principles. Waste management is implemented by the establishment of a waste management committee and the development and implementation of a Waste Management Plan. The Generic Waste Management Plan provides supplementary detail and forms a practical tool to implement the Guidelines.



These Guidelines will assist managers and personnel of any facility to implement standards and comply with relevant legislation. Adoption and commitment by each facility through the establishment of a Waste Management Committee and adoption of a Waste Management Plan will assist the facility to manage their waste streams correctly, efficiently and effectively.

These Guidelines continue with the concepts of waste segregation into various waste streams, labeling and containment, handling, storage and transport, treatment / disposal, auditing, Occupational Health and Safety, training and legal requirements.

HEALTH-CARE WASTE:

Health-care waste includes all the waste generated by health-care establishments, research facilities and laboratories, including health-care waste produced at home (dialyses, insulin injections etc.)

CATAGORIES OF HEALTH-CARE WASTE:

Infectious waste (containing pathogens, excreta, etc.)

Pathological waste (body parts, blood, foetuses, etc.)

Sharps (needles, infusion sets, broken glass, etc.)

Pharmaceutical waste (old medicines, etc.)

Genotoxic waste (cytostatic drugs, etc.)

Chemical waste (laboratory material, film developer, etc.)

Heavy metal waste (batteries, thermometers, etc.)

Pressurised containers (gas cartridges, etc.)

Radioactive waste (waste from radiotherapy, etc.)

IMPROPER DISPOSAL:

Hospitals and public health care units are supposed to safeguard the health of the community. However, the waste produced by the medical care centers if disposed off improperly, can pose an even greater threat than the original disease themselves. In most of the cases there are no systematic approaches to medical waste disposal. Hospital wastes are simply mixed with the municipal waste in collecting bins at roadsides and disposed off similarly. Some waste is simply buried without any appropriate measure. While all the equipment necessary to ensure the proper management of hospital waste

probably exists, the main issue lies in the staff who fails to prepare and implement an effective disposable policy.

In general disposable syringes and needles are also not disposed off properly. Some patients, who routinely use syringes at home, do not know how to dispose them off properly. They just throw them in a dustbin or other similar places, because they think that these practices are inexpensive, safe, and easy solution to dispose off a potentially dangerous waste item.

Purpose of the Guidelines

The purpose of the Guidelines is to provide a framework of waste management strategies to assist in the day to day and long term management of waste by implementing the following essential strategies:

Waste management committees, plans and waste audits;

Waste minimization, avoidance, segregation, recycling and re-use;

Waste labeling and containment; C proper waste handling, storage and transport;

Correct waste treatment / disposal

Uniform application of these Guidelines to all facilities will help to reduce

uncertainty when staff moves between facilities. This assists with providing a safe working environment.

Waste Segregation

Waste segregation should follow immediately after waste is generated. Effective segregation will reduce costs, promote recycling and protect the health and safety of all.



What is Segregation?

Waste segregation is the practice of classifying waste and placing it into the appropriate waste container immediately after the waste is generated.

Importance of Waste Segregation

Facilities should accurately segregate waste to protect personnel from injury and infection by preventing hazardous waste entering inappropriate waste streams and divert problematic waste from incorrect waste streams. Correct segregation is necessary to ensure that materials which are reusable or recyclable are not discarded. Correct segregation and containment of all wastes are required in order to comply with the provisions of the Waste Regulation. The mixing of wastes is not permitted. If mixing occurs, wastes containing more than 200g of hazardous waste are to be classified as hazardous.

Segregation Practice Achievement

Effective segregation can be best achieved through:

Providing education and training programs to all personnel who generate waste)

Identification of material composition (Material Safety Data Sheet);

Establishing identifiable color coding, and labeling;

Provide suitable containers in appropriate and suitable locations;

Incorporating quick and efficient waste disposal methods into patient care

Procedures. This may require the redesign or reorganization of procedure trolleys and working environments; and ensuring all waste can be easily, safely and properly segregated at the point of generation.

Training

Importance of training in the processes of achieving continuous

improvement in waste management.

Education and Training

Management should provide education and training to waste generators, handlers, collectors, transporters, and key managers instrumental in the implementation of the WMP, and waste treatment facility operators. Handlers must be trained and equipped to undertake the handling, internal transport, spill management and storage requirements for the different types of wastes arising at the facility. The purpose of education and training is to minimize the risk of injury associated with waste handling and facilitate efficient waste management.

Education and training programs should include:

Approved work practices;

Regulatory requirements and methods of compliance;

The use of required personal protective equipment;

Waste minimization, segregation, labeling, containment and disposal strategies;

First aid and medical treatment for needle stick and other waste handling related injuries;

Hand washing strategies.

Education and training should be provided at the induction of new employees, on an ongoing basis, with the introduction of new equipment, and at times of technological change. Approved work practices should be documented and promoted. Multilingual translations are to be provided to personnel who may not be proficient in English.

Disaster preparedness and management

4. Disaster Management Preparedness

While we don't like to think of it, all of us live in a world where nature poses a risk for us. No matter where we live, there is some risk that just the land and atmosphere around us provides. If your family were involved in some serious event, would you be prepared?



Rather than sticking your head in the sand and pretending like it could never happen to you, shouldn't you get some information about disaster management preparedness? Being prepared is not difficult. It just requires some pre planning, a little bit of storage space, and the right information. We can help you with the information and planning. At Ready2Prepare, our philosophy is that anyone can and should have a plan in place for how to deal with these events.

Natural disaster management starts with recognizing and identifying the risks that you face due to your location. People in different parts of the world face different risks from nature. Someone living in the mountains is not at a high risk for tornados or flooding, but is at risk for earthquakes and avalanches. We will help you identify these risks so that you can prepare properly for what might happen.

SELF-CHECK 4.3-1

1. Fire safety measures include those that are planned during the construction of a building or implemented in structures that are already standing, and those that are taught to occupants of the building.
2. Waste segregation is the practice of classifying waste and placing it into the appropriate waste container immediately after the waste is generated.
3. Approved work practices should be documented and promoted.
4. Natural disaster management starts with recognizing and identifying the risks that you face due to your location.
5. A disaster management include a situation that increases the likelihood a fire may start or may impede escape in the event a fire occurs.

ANSWER SHEET

1. True
2. True
3. True
4. True
5. True

INFORMATION SHEET 4.3-2

Contingency Measures and Procedures

Learning objectives: After reading this information sheet you should be able to identify the different contingency measures needed in the event of workplace emergencies.



Effective emergency communication is vital. During a major emergency involving a fire or explosion it may be necessary to accomplish a complete evacuation. Normal services, such as electricity, water, and telephones, may be non-existent. Under these conditions, it may be necessary to have an alternate area to which employees can report or that can act as a focal point for incoming and outgoing calls. Since time is an essential element for adequate response, the person designated as being in charge should make this the alternate headquarters so that they can be easily reached. The college must provide emergency alarms and ensure that employees know how to report emergencies. An updated list of key personnel and off-duty telephone numbers should be maintained. Emergency communications equipment such as amateur radio systems, public address systems, or portable radio units should be present for

notifying employees of the emergency and for contacting local authorities such as law enforcement officials, the fire department, and private sector charitable groups.

A method of communication also is needed to alert employees to the evacuation or to take other action as required in the plan. Alarms must be audible or able to be seen by all personnel and have an auxiliary power supply in the event electricity is affected. The alarm must be distinctive and recognizable as a signal to evacuate the work area or perform actions designated under the emergency action plan. The college must explain to each employee the means for reporting emergencies, such as manual pull box alarms, public address systems, or telephones. Emergency telephone numbers should be posted on or near telephones, on employees' notice boards, or in other conspicuous locations. The warning plan should be in writing and management must be sure each employee knows what it means and what action is to be taken.

A system should be established for accounting for personnel once workers have been evacuated with a person in the control center responsible for notifying police or emergency response team members of persons believed missing.

Effective security procedures, such as cordoned off areas, can prevent unauthorized access and protect vital records and equipment. Duplicate records can be kept in off-site locations for essential accounting files, legal documents and lists of employees' relatives to be notified in case of emergency.

Every employee needs to know details of the emergency action plan, including evacuation plans, alarm systems, reporting procedures for personnel, shutdown procedures, and types of potential emergencies. Drills should be held at random intervals, at least annually, and include if possible, outside police and fire authorities.

Employees exposed to accidental chemical splashes, falling objects, flying particles, unknown atmospheres with inadequate oxygen or toxic gases, fires, live electrical wiring, or similar emergencies need personal protective equipment, including:

- Safety glasses, goggles, or face shields for eye protection.
- Hard hats and safety shoes
- Properly selected and fitted respirators

- Whole body coverings, gloves, hoods, and boots.
- Body protection for abnormal environmental conditions such as extreme temperature



SELF-CHECK 4.3-2

True or False: Write True if the statement is correct and False if the statement is incorrect.

1. Every employee needs to know details of the emergency action plan, including evacuation plans, alarm systems, reporting procedures for personnel, shutdown procedures, and types of potential emergencies.
2. Effective emergency communication is not vital.
3. A method of communication also is needed to alert employees to the evacuation or to take other action as required in the plan.
4. Employees exposed to accidental chemical splashes, falling objects, flying particles, unknown atmospheres with inadequate oxygen or toxic gases, fires, live electrical wiring, or similar emergencies need personal protective equipment,
5. Alarms must be audible or able to be seen by all personnel and have an auxiliary power supply in the event electricity is affected. The alarm must be distinctive and recognizable as a signal to evacuate the work area or perform actions designated under the emergency action plan.

ANSWER KEY

1. True
2. False
3. True
4. True
5. True

Learning Outcome 4	MAINTAIN OCCUPATIONAL HEALTH AND SAFETY AWARENESS
<p>CONTENTS:</p> <ul style="list-style-type: none"> • Operational health and safety procedure, practices and regulations. • Emergency – related drills and training 	
<p>ASSESSMENT CRITERIA:</p> <ol style="list-style-type: none"> 1. Procedures in emergency related drill are strictly followed in live with the established organization guidelines and procedures. 2. OHS personal record is up in accordance with workplace requirements. 3. PPE are maintained in line with organization guidelines and procedures 	
<p>CONDITIONS:</p> <ul style="list-style-type: none"> • Workplace • PPE • OHS Personal records • Health record 	
<p>ASSESSMENT METHODS:</p> <ul style="list-style-type: none"> • Written • Interview • Simulation 	

LEARNING EXPERIENCES

Learning Activities	Special Instruction
1. Read information sheet # 4.4-1 on Operational health and safety procedure, practices and regulations	Read, analyze and perform the information and activities regarding information sheet # 4.4-1
2. Answer self-check # 4.4-1	Compare the answers to the answers key # 4.4-1
3. Read information sheet # 4.4-2 on Emergency - related drills and training	Read information sheet. After reading, the learner is encouraged to answer the self-check provided.
4. Answer self check # 4.4-2	Compare the answers to the answers key # 4.4-2

INFORMATION SHEET NO. 4.4-1

Operational Health and Safety Procedures, Practices and Regulations

Learning Objectives:

After reading this information sheet, the student/ trainee should be able to:

1. Maintain PPE in line with organization guidelines and procedures.

PERSONAL PROTECTIVE EQUIPMENT (PPE) Personal should only be used as a last resort. PPE is for short term solutions only. PPE protects an employee's body from hazards. PPE must be provided free of charge and maintained by the employer. Employers are also required to ensure that workers are trained in the proper use of PPE.

Employees have a responsibility to use PPE in accordance with their training and safe usage requirements. For example

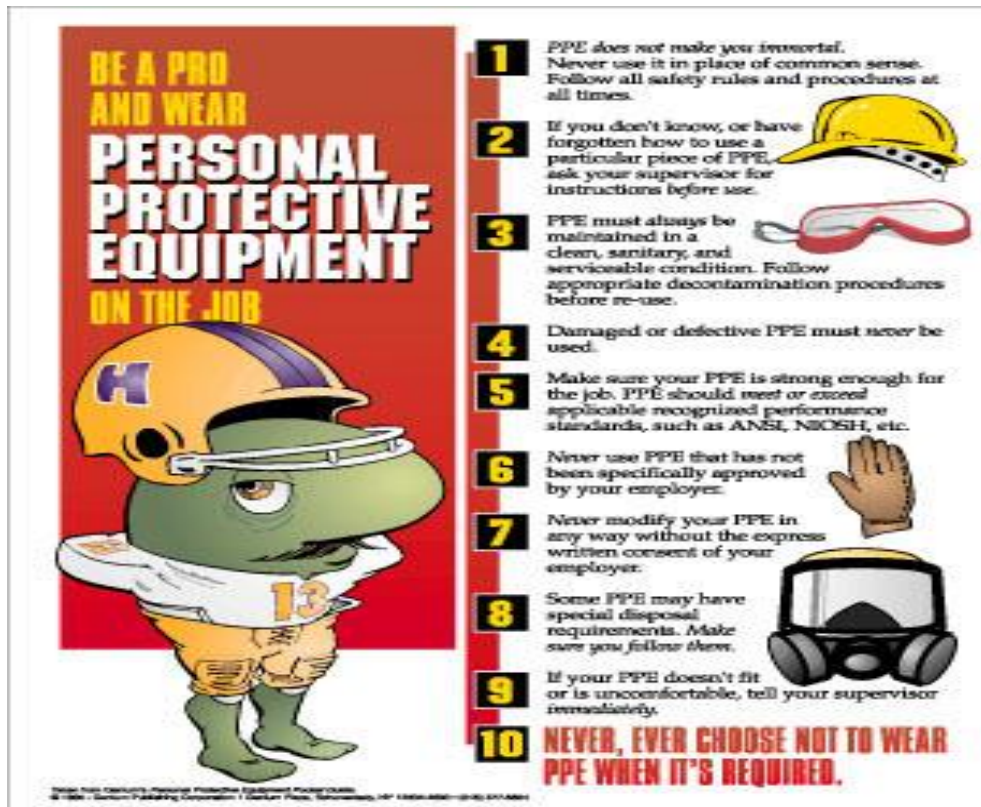


- wear earplugs in noisy areas
- wear eye protection when working with hazardous chemicals
- wear gloves to protect against infection.

Specific controls to reduce risks


Select controls from as high up the hierarchy table as you can. The 'elimination' method is the safest solution. In many cases you may need a combination of controls to reduce the level of risk. For example


- workplace design changes or task modification
- substituting an extremely hazardous chemical with a less hazardous one
- using a fume cupboard when handling the chemical
- ensuring exposure time is limited
- providing PPE to employees.



BE A PRO AND WEAR PERSONAL PROTECTIVE EQUIPMENT ON THE JOB


1 PPE does not make you invincible. Never use it in place of common sense. Follow all safety rules and procedures at all times.

2 If you don't know, or have forgotten how to use a particular piece of PPE, ask your supervisor for instructions before use. 


3 PPE must always be maintained in a clean, sanitary, and serviceable condition. Follow appropriate decontamination procedures before re-use. 

4 Damaged or defective PPE must never be used.

5 Make sure your PPE is strong enough for the job. PPE should meet or exceed applicable recognized performance standards, such as ANSI, NIOSH, etc.

6 Never use PPE that has not been specifically approved by your employer. 

7 Never modify your PPE in any way without the express written consent of your employer.

8 Some PPE may have special disposal requirements. Make sure you follow them. 

9 If your PPE doesn't fit or is uncomfortable, tell your supervisor immediately.

10 **NEVER, EVER CHOOSE NOT TO WEAR PPE WHEN IT'S REQUIRED.**

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Reducing risk to an acceptable minimum will ensure optimum risk reduction for all.

SELF-CHECK 4.4-1

TRUE OF FALSE: Write True if the statement is correct and False if the statement is incorrect.

1. Employees who believe PPE is not necessary for their work or who consider it too uncomfortable to wear run the risk of leaving themselves unprotected and vulnerable to occupational injuries.
2. The use of personal protective equipment (PPE) reduce employee exposure to hazards.
3. PPE should only be used as a last resort.
4. Employees have a responsibility to use PPE in accordance with their training and safe usage requirements
5. Do wear eye protection when working with hazardous chemicals

ANSWER KEY

1. True
2. True
3. True
4. True
5. False

INFORMATION SHEET NO. 4.4-2

EMERGENCY RELATED DRILLS AND TRAINING

Learning objective: After reading this information sheet you must be able to know how to handle emergency cases in the workplace.

Emergency Drills – are you doing them?



What is an 'emergency drill'?

An emergency drill is a focused activity that allow staff and students and administrators to practice specific functions. It is not a fully stimulated activity like a creation of hostage situation as a simulation. It is a fire drill, a shelter and place drill, a lock down drill. We are practicing a very specific function and getting a chance to test our plans will allow our people to practice as life saving skills for what we call functional protocols. Functions that need to be carried out during a variety of types of emergency situations and an drill is a very important part of overall preparedness strategy.



Think back to when you were a kid in school. Do you remember the various hazard drills you had to practice? Depending on where you lived there were fire drills, tornado drills, earthquake drills, intruder drills, etc. The idea was that if such an incident were to happen, everyone would know what to do without thinking about it. They would just act.

Why is it that once we get into the working world, it seems these drills go by the wayside? Whether you are just in an office building where you could be threatened by fire or tornados, or a shop where there could be industrial accidents like chemical spills, why is it we don't always think to conduct these same 'worst case' scenario drills?

It's time to reinstate the emergency drill. But this will not be just any emergency drill. All businesses are different, and that means you will have specific needs that have to be met. Think about what needs to be met in your workplace in an emergency.

Possible Threats

In addition to the fire and nature-related threats already mentioned, are there any specific threats that may impact your workplace (i.e. radiation leaks, chemical spills, explosions from combustibles). If there are, you need to train your personnel on how to deal with these situations were they to arise.

Employee Safety

It is important to make sure your employees know where they need to go, and how to get there, to be safe in an emergency situation.

Machine Shutdown

If you have a number of machines operating in your building, and some need to be monitored or assisted while running so they don't burn up or cause more problems, you need a shut-down procedure that can be followed quickly while still getting your employees to safety in an emergency situation.

Materials Safety

If your workplace has a number of chemicals or other hazardous materials in use, it is vital that you have measures in place to attempt to secure these materials as an evacuation or other emergency operation is underway. Many of these types of companies have special rooms where the chemicals are kept which can be shut and sealed off as an evacuation is happening.

You should plan regular drills with your employees to make sure they know what to do, when to do it, and how to do it in case of an emergency. While you may not want to regularly close down all your operations for a drill, you can go department by department, and make the employees do a mock incident, and monitor their reactions, noting any mistakes they make in the process.

While it may seem like an inconvenience, the more prepared your company is for the worst the better chance you will be able to safely shut down operations and get everyone out alive and well if the worst were to happen.

SELF -CHECK 4.4-2

1. It is important to make sure your employees know where they need to go, and how to get there, to be safe in an emergency situation.
2. You should plan regular drills with your employees to make sure they know what to do, when to do it, and how to do it in case of an emergency
3. If your workplace has a number of chemicals or other hazardous materials in use, it is vital that you have measures in place to attempt to secure these materials as an evacuation or other emergency operation is underway
4. An emergency drill is not a focused activity that allow staff and students and administrators to practice specific functions. It is not a fully stimulated activity like a creation of hostage situation as a simulation
5. While it may seem like an inconvenience, the more prepared your company is for the worst the better chance you will be able to safely shut down operations and get everyone out alive and well if the worst were to happen.

ANSWER KEY 4.4-2

- 1. True**
- 2. True**
- 3. True**
- 4. False**
- 5. True**

INSTRUMENT FOR INSTITUTIONAL ASSESSMENT

EVIDENCE PLAN/EVALUATION PLAN

TRAINEES NAME			
FACILATATORS NAME			
QUALIFICATION	PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES		
UNIT OF COMPETENCY COVERED			
Ways in which evidence will be collected: <i>[column]</i>	Demonstration	Witten Test	Interview
The evidence must show that the candidate.....			
• Identify hazards & risks	X		
• Identify hazards and risks and their corresponding indicators	X		
• Recognize and establish contingency measures	X		
• Identify terms of maximum tolerable limits	X	x	
• Determine the effects of hazards	X		
• Identify OHS issues and concerns in accordance with workplace requirements	X		X
• Follow strictly OHS procedures for controlling hazards and risks	X		
• Follow procedures in dealing with workplace accidents	X	x	X
• Use correctly PPE	X		
• Identify procedures in providing appropriate assistance in the event of workplace emergencies	X		X
• Follow strictly procedures in emergency related drills	X		

COMPETENCY ASSESSMENT RESULTS SUMMARY

Candidate's Name:			
Assessor's Name:			
Qualification:			
Date of Assessment:			
Assessment Center:			
The performance of the candidate in the following assessment methods – <p style="text-align: center;">PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES</p> [Pls. check (✓) appropriate box]	Satisfactory	Not Satisfactory	
A. Demonstration with Oral Questioning			
B. Written Exam			
Did the candidate's overall performance meet the required evidences/ standards?			
OVERALL EVALUATION	COMPETENT	NOT YET COMPETENT	
Recommendation For re-assessment. _____ For submission of document. Pls. specify (Portfolio Document) _____ For issuance of COC _____			
General Comments [Strengths / Improvements needed] 			
Candidate's signature:		Date:	
Assessor's signature:	Bhelynda A. Gonzales	Date:	

RATING SHEET FOR OBSERVATION/ WITH ORAL QUESTIONING

Candidate's Name:			
Assessor's Name:			
Assessment Center:			
Qualification:			
Unit of Competency	PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES		
Instructions for the assessor:			
Date of observation:			
Description of assessment activity:			
Location of assessment activity:			
During the performance of skills, the candidate....			If yes, tick the box
<ul style="list-style-type: none"> • Explained safety regulations and hazard control practices. 			<input type="checkbox"/>
<ul style="list-style-type: none"> • Determined the effects of hazards. 			<input type="checkbox"/>
<ul style="list-style-type: none"> • Followed OHS procedures 			<input type="checkbox"/>
<ul style="list-style-type: none"> • Used PPE procedures and practices. in accordance with organization 			<input type="checkbox"/>
Assessor's signature:			Date:

RATING SHEET FOR OBSERVATION/DEMONSTRATION WITH ORAL QUESTIONING

		Satisfactory response	
The candidate should answer the following questions:		Yes	No
<ul style="list-style-type: none"> How will you be able to promote sound and pleasant working relationships with other workers in the company? 			
<ul style="list-style-type: none"> In case of unexpected emergency or problem that will arise in the workplace, to whom will you report the incident? 			
The candidate's underpinning knowledge was: Satisfactory <input type="checkbox"/> Not Satisfactory <input type="checkbox"/>			
Feedback to candidate:			
The candidate's overall performance was: Satisfactory <input type="checkbox"/> Not Satisfactory <input type="checkbox"/>			
Assessor signature:		Date:	

RATING SHEET FOR WRITTEN TEST

Candidate's Name:	
Assessor's Name:	
Assessment Center:	
Qualification:	
Unit of Competency	PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES
Instructions for the assessor:	
Date of observation:	
Description of assessment activity:	
Location of assessment activity:	
During the performance of skills, the candidate....	If yes, tick the box

Followed OHS procedures for controlling hazards/risks in workplace	<input type="checkbox"/>
Emergency related drills were practice	<input type="checkbox"/>
Completed OHS personal records	<input type="checkbox"/>
Personal Protective Equipment were used	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
Assessor's signature:	Date:

SUGGESTED QUESTIONS AND ANSWERS FOR OBSERVATION / DEMONSTRATION

Qualification:	
Unit of Competency	PRACTICE OCCUPATIONAL HEALTH AND SAFETY PROCEDURES
1. What is a health hazard? <i>Answer:</i>	
2. What are the safety symbols and devices in the laboratory? <i>Answer:</i>	
3. What is safety awareness? <i>Answer:</i>	
4. What are the three main international colors used on safety symbols? <i>Answer:</i>	
5. What will happen if you are in an accident? <i>Answer:</i>	

WRITTEN TEST

INSTITUTIONAL ASSESSMENT

MATCHING TYPE:

Match column A to column B. Write the letter of your choice on a separate sheet of paper.

A

B

1. A warning against what could potentially adversely affect one's health. It could come in the form of a symbol

2. Being aware of safety issues

3. Handles issues related to workplace safety standards, compliance with safety codes and safety incidents

4. Anything which may cause injury or illness

5. An expression of how many events happened over a given period of time by standardized number of hours worked.

A. Safety awareness

B. Frequency rate

C. Health Hazard

D. Safety department

E. Hazard

True or False: Write True if the statement is correct and False if the statement is incorrect.

1. Every employee needs to know details of the emergency action plan, including evacuation plans, alarm systems, reporting procedures for personnel, shutdown procedures, and types of potential emergencies.
2. An emergency drill is not a focused activity that allow staff and students and administrators to practice specific functions. It is not a fully stimulated activity like a creation of hostage situation as a simulation
3. Fire safety measures include those that are planned during the construction of a building or implemented in structures that are already standing, and those that are taught to occupants of the building.
4. Waste segregation is the practice of classifying waste and placing it into the appropriate waste container immediately after the waste is generated.
5. Approved work practices should be documented and promoted.
6. Natural disaster management starts with recognizing and identifying the risks that you face due to your location.
7. A disaster management include a situation that increases the likelihood a fire may start or may impede escape in the event a fire occurs.
8. Work Contingency Prevention is not necessary if we have to spare the workers and their families from the problems and pain that come along with any work-connected sickness, injury or death
9. The WCP program is designed to help ease the problem of increasing number of workers who either become disabled or died due to occupational injuries or diseases.
- 10 The rehabilitation of the occupationally disabled workers (ODWs) gives new hope and brings life to our ODWs. Its primary objective is to bring back the ODWs into the economic mainstream as productive members of society through rehabilitative services.

ANSWER SHEET
(Institutional Test)

I. Matching type

1. C
2. A
3. D
4. E
5. B

II. True or False

1. True
2. False
3. True
4. True
5. True
6. True
7. True
8. False
9. True
10. True