Building Electrical installation

Level-II

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Acronyms

(OHS)----------Occupational Health and Safety

(PPE)----------Personal Protective Equipment

(HCF)----------Health Corporate Framework

(SWP)---------- Safe work practices

Introduction to The Module

In Building Electrical installation filed provides practical advice to health and community service organizations about how to manage work health and safety for community workers working in people's homes. The module outlines many common hazards found in the community services sector, primarily in the home environment, and provides solutions based on the principles of risk management. It is important for all relevant parties, including clients and primary careers, to work together to Identify work health and safety risks and the best ways to manage them.

This module is designed to meet the industry requirement under the Building Electrical Installation occupational standard, particularly for the unit of competency: **Demonstrate Care and Safety Practice.**

This module covers the units:

- Safe Work Procedure
- Personal Wellbeing in A Work Environment
- Safety of Self and Others Report
- Emergency Procedures

Learning Objective of the Module

- Follow Safe Work Procedure
- Maintain Personal Wellbeing in A Work Environment
- Be Aware of and Report on Safety of Self and Others
- Follow Emergency Procedures

Module Instruction

For effective use this modules trainees are expected to follow the following module instruction:

- Read the information written in each unit

- Accomplish the Self-checks at the end of each unit
- Perform Operation Sheets which were provided at the end of units
- Do the “LAP test” giver at the end of each unit and
- Read the identified reference book for Examples and exercise

UNIT ONE: SAFE WORK PROCEDURE

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Hazards Associated with Water
- Relevant OHS
- Safety Procedures and Reporting Hazards.
- Personal Protective Equipment

This unit will also assist you to attain the learning outcomes stated in above unit. Specifically, upon completion of this learning guide, you will be able to:

- Identify hazards associated with water
- Check relevant OHS

- Apply safety procedures and reporting hazards.
- Use personal protective equipment

1.1 Hazards Associated with Water

Water is a great conductor of electricity, allowing current to flow more easily in wet conditions and through wet skin. The effect of the shock may range from a slight tingle to severe burns to cardiac arrest.

❖ **Electrical Safety**

Electrically powered equipment can pose a significant hazard to workers, particularly when mishandled or not maintained. Many electrical devices have high voltage or high power requirements, carrying even more risk.

❖ **Electrical Shock Hazards**

The major hazards associated with electricity are electrical shock, fire and arc flash. Electrical shock occurs when the body becomes part of the electric circuit, either when an individual comes in contact with both wires of an electrical circuit, one wire of an energized circuit and the ground, or a metallic part that has become energized by contact with an electrical conductor.

The severity and effects of an electrical shock depend on a number of factors, such as the pathway through the body, the amount of current, the length of time of the exposure, and whether the skin is wet or dry. Water is a great conductor of electricity, allowing current to flow more easily in wet conditions and through wet skin.

The effect of the shock may range from a slight tingle to severe burns to cardiac arrest. The chart below shows the general relationship between the degree of injury and amount of current for a 60-cycle hand-to-foot path of one second's duration of shock. While reading this chart, keep in mind that most electrical circuits can provide, under normal conditions, up to 20,000 mill amperes of current flow.

Current	**Reaction**
1 Milliampere	Perception level
5 Milliamperes	Slight shock felt; not painful but disturbing
6-30 Milliamperes	Painful shock; “let-go” range

50-150 Milliamperes	Extreme pain, respiratory arrest, severe muscular contraction
1000-4,300 Milliamperes	Ventricular fibrillation
10,000+ Milliamperes	Cardiac arrest, severe burns and probable death

In addition to the electrical shock hazards, sparks from electrical equipment can serve as an ignition source for flammable or explosive vapors.

❖ **Arc Flash**

An Arc Flash is an electrical explosion resulting from a low impedance connection to ground or another voltage phase in an electrical system. High temperatures cause rapid heating of surrounding air and extreme pressures, resulting in an arc blast. The arc blast (what results from the arc flash) will likely vaporize all solid copper conductors, which will expand up to 67,000 times its original volume when it is vaporized.

A hazardous arc flash can occur in any electrical device, regardless of voltage, in which the energy is high enough to sustain an arc. Potential places where this can happen include:

- Panel boards and switchboards
- Motor control centers
- Metal clad switch gear
- Transformers
- Motor starters and drive cabinets
- Fused disconnects
- Any place that can have equipment failure

In an arc flash incident, an enormous amount of concentrated radiant energy explodes outward from electrical equipment. The explosion creates pressure waves that can damage a person's hearing, a high-intensity flash that can damage their eyesight and a superheated ball of gas that can severely burn a worker's body and melt metal.



Figure .1.1: Arc Flash electrical explosion

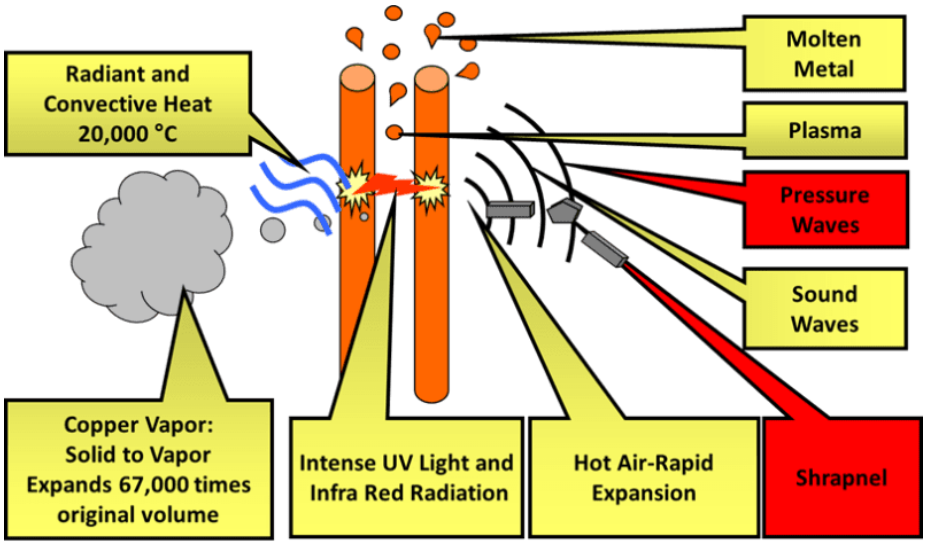


Figure 1.2: Reasons of Arc Flash

❖ **Electrical Safety-Related Work Practices**

Only qualified workers who have been trained in the avoidance of electrical hazards are permitted to work on or near exposed energized parts. Safety related work practices are employed to prevent electric shock or other injuries resulting from either direct or indirect electrical contact when work is performed near or on equipment or circuits which are or may be energized. The specific safety-related work practices must be consistent with the nature and extent of the associated electrical hazards.

❖ **Qualified Personnel vs. Unqualified Personnel**

For the purposes of electrical safety related work practices, there are two types of employees in the work place that may come in contact with electrical equipment on a jobsite: qualified and unqualified. A Qualified employee is defined as a worker who

- Has been trained to avoid electrical hazards when working on or near exposed energized parts.
- Is familiar with the safety related work practices as required by OSHA standards.
- Is able to distinguish exposed live parts of electrical equipment.

- Is knowledgeable of the skills and techniques used to determine the nominal voltages of exposed parts and components.

- **An Unqualified employee** is defined as a worker who has little or no training regarding electrical hazards. Even though unqualified persons should not be exposed to energized parts, they should be provided with information and training necessary to perform their job in a safe manner and understand the following:

  - Be familiar with any electrical hazards in the workplace.
  - Understand procedures to follow and to protect themselves when they work around electricity.
  - Understand which tasks that can only be performed by qualified workers (e.g. maintenance and repairs).
  - Know when and how to report electrical problems.
  - Know what to do in the event of emergency involving electricity.
  - Know how to inspect electrical tools and equipment before use to make sure insulation and wiring are in good condition.

❖ **Working On or Near Energized Circuits**

Live parts to which an employee may be exposed must be deenergized before the employee works on or near them unless deenergizing the parts introduce additional or increased hazards or is unfeasible due to equipment design or operational limitations. Examples of increased or additional hazards include interruption of life support equipment, deactivation of emergency alarm systems, shutdown of hazardous location ventilation equipment, or removal of illumination for an area. Live parts that operate at less than 50 volts to ground need not be deenergized if there are no increased exposures to electrical burns or to explosions due to electric arcs.



Figure 1.3 : use PPE for Near Energized Circuits

❖ **DE energized Parts:** When employees work on DE energized parts or near enough to them to expose the employees to any electrical hazard they present, the following safety related work practices must be followed:

- Treat as energized any conductors and parts of electrical equipment that have been DE energized, but have not been properly locked out or tagged.
- While any employee is exposed to contact with parts of fixed electric equipment or circuits which have been deenergized, the circuits energizing the parts shall be locked out or tagged or both. In addition, electrical hazards must be controlled; a qualified person must test the circuit to verify deenergization from all voltage sources.
- Safe procedures for DE energizing circuits and equipment must be determined before circuits or equipment are deenergized. All electric energy sources must be disconnected. Control circuit devices, such as push buttons, electric switches, and interlocks must not be used as the sole means of deenergizing circuits or equipment. Interlocks must not be used as a substitute for lockout and tagging procedures.



Figure 1.4: DE energized parts

❖ **Energized Parts**

Employees are considered working on or near exposed energized parts when working on exposed live parts either by direct contact or contact be means of tools or materials or when working near enough to energized parts to be exposed to any hazard they present. Only qualified persons are permitted to work on electric circuit parts or equipment that have not been deenergized (lockout/tag out). Qualified persons are capable of working safely on energized circuits and are familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools.

Approach distances for qualified person to alternating current

Voltage Range (Phase to Phase)	Minimum Approach Distance
300V and less	Avoid contact
Over 300V, not over 750V	1 foot
Over 750V, not over 2kV	1 ft. 6 in.
Over 2kV, not over 15kV	2 feet

Over 15kV, not over 37kV	3 feet
Over 37kV, not over 87.5kV	3 ft. 6 in.
Over 87.5kV, not over 121kV	4 feet

Overhead Lines: - When work is to be performed near overhead lines, the lines must be deenergized and grounded, or other protective measures taken before the work is started. Such protective measures, such as guarding, isolating or insulating, shall prevent the qualified person performing the work from contacting the lines with any part of their body or indirectly through conductive material, tools, or equipment.

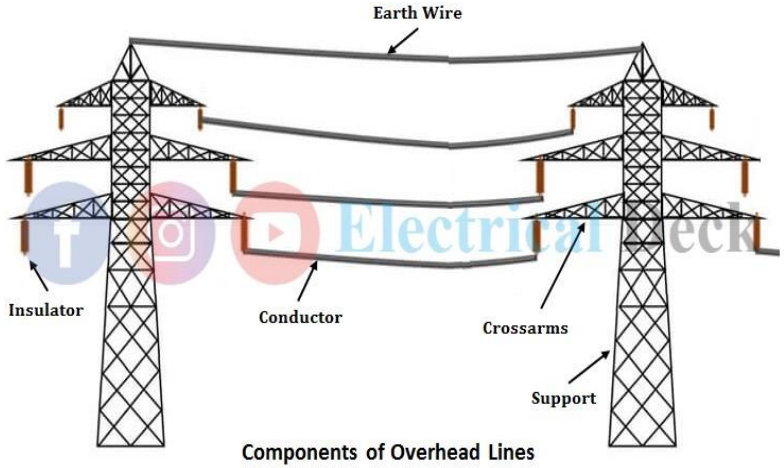


Figure :1.5 Overhead Lines on transmission line

Unqualified persons working in an elevated location near overhead lines are not allowed to come closer or to handle the conductive objects which may contact or come closer to any unguarded, energized overhead line than the following distances:

Voltage to Ground Distance

50kV or below	10 feet
Over 50kV	10 feet (plus 4 in. for each 10kV over 50kV)

Unqualified persons working on the ground in the vicinity of overhead lines are not allowed to bring a conductive object or any insulated object which does not have the proper insulating rating closer to unguarded, energized overhead lines that the distance specified above.

Qualified persons working in the vicinity of overhead lines, whether in an elevated position or on the ground, are not allowed to approach or take any conductive object without an approved insulating handle closer to exposed energized parts that in the table above, Approach Distance for Qualified Persons, unless a.) The person is insulated from the energized part by using the proper gloves, with sleeves if necessary, rated for the voltage involved, or b.) The energized part is insulated from all the person, or c.) The person is insulated from all conductive objects at the potential different from the energized part.

Alerting Techniques

Alerting techniques must be used to warn and protect employees from electrical shock hazards, burns, or failure of electric equipment parts. Safety signs, safety symbols, or accident prevention tags must be used where necessary to warn employees about electrical hazards which may endanger them. Barricades should be used in conjunction with safety signs where necessary to prevent or limit employee access to work areas exposing employees to un-insulated energized conductors or circuit parts. Conductive barricades must not be used where they might cause an electrical contact hazard. An attendant should be stationed to warn and protect employees where signs and barricades do not provide sufficient warning and protection.

Alerting techniques. The following alerting techniques shall be used to warn and protect employees from hazards which could cause injury due to electric shock, burns, or failure of electric equipment parts:

(1) Safety signs and tags. Safety signs, safety symbols, or accident prevention tags shall be used where necessary to warn employees about electrical hazards which may endanger them,



Figure 1.6: Safety signs and tags

(2) Barricades: Barricades shall be used in conjunction with safety signs where it is necessary to prevent or limit employee access to work areas exposing employees to uninsulated energized conductors or circuit parts. Conductive barricades may not be used where they might cause an electrical contact hazard.





Figure 1.7: Barricades

(3) Attendants. If signs and barricades do not provide sufficient warning and protection from electrical hazards, an attendant shall be stationed to warn and protect employees. These alerting techniques are being used for a reason, a hazard exists. Never attempt to go through or bypass a safety sign or tag, Barr icade, or an attendant.



Figure 1.8: Attendants

❖ **Working Outdoors and Extension Cords**

- **Working Outdoors**

Electrical hazards on construction or renovation sites or work performed outdoors must be controlled through the use of Ground Fault Circuit Interrupters (GFCIs).

- All 120-volt, single-phase, 15 or 20 ampere receptacles that are not part of permanent wiring must be protected by GFCIs. (Receptacles on smaller generators are exempt under certain situations. Consult with your supervisor or EHS with any questions.).
- Light bulbs used for general illumination must be protected from breakage.
- Temporary lights must not be suspended by their cords, unless so designed.
- Portable lights or tools used in wet or conductive locations must be protected by GFCIs or operate at 12 volts or less.

❖ **Extension Cords**

Workers must visually inspect extension cords and cord and plug connected equipment daily before use. Damaged extension cords must be removed from service and destroyed. Damaged or defective equipment must be removed from service and destroyed or repaired by a qualified electrician.

Extension cords must be three-wire type. Extension cords or flexible cords used for lighting must be designed for hard or extra hard usage (e.g., types S, ST, SO) Flexible cords must be connected to devices and fittings so that strain relief is provided and prevents pull from being directly transmitted to joints or terminal screws.



Figure 1.9 Extension Cords

❖ **Hazards**

Hazard is anything that may cause harm to an individual, such as chemicals, electricity, open drawers, and inadequate ventilation.

- **A Types of Hazards**

Physical Hazards: are the most normal occurrences in workplaces. They are usually easy to detect, however, very often are neglected because people are too accustomed to them.

Another reason may be due to lack of knowledge or people do not see situations as hazards.

Examples of physical hazards that a caregiver may be exposed to:

- **Electrical hazards**: Even in day care institutions or nursing homes where care should be of utmost concern, improper wiring and frayed cords may still go unnoticed. Misuse of electrical equipment also happens in any type of work environment.
- **Endless loud noise**: If one is going to work in a nursing home, frequent noise from patients who are suffering from depression is definitely a hazard.
- **Spills on floors or tripping hazards**: There are times when even the caregivers themselves do not mind spills on floors. This, definitely, poses hazard to everyone.



Figure 1.10: Physical Hazards

Some of the Effects of Physical Hazards

- ✓ *Fire*
- ✓ *Decreased efficiency*
- ✓ *Annoyance*
- ✓ *Falls*

- **Biological Hazards** come from working with animals, people or infectious materials. This is, therefore, one of the most common hazards that a caregiver faces. If one is working in a day care, hospital, hotel laundry, nursing home, laboratories, he/she may be exposed to biological hazards.

  Examples of physical hazards that a caregiver may be exposed to:

  - ✓ *blood or other body fluids*
  - ✓ *fungi*
  - ✓ *bacteria and viruses*
  - ✓ *contaminated wastes*

  Some of the Effects of Biological Hazards

  - ✓ *infections*
  - ✓ *skin irritations*
  - ✓ *allergy*
  - ✓ *AIDS*



Figure 1.11: Biological Hazards

❖ **Ergonomic Hazards:** occur when a caregiver's nature of work, body position and working conditions put pressure on his/her body. It is difficult to spot this type of hazard, because caregivers do not immediately notice the effect to their bodies. At first, sore muscles may be experienced. But long term exposure to this type of hazard can cause musculoskeletal problems.

Examples of ergonomic hazards that a caregiver may be exposed to:

- ✓ performing tasks that require lifting heavy loads
- ✓ too much bending and reaching
- ✓ standing for long periods of time
- ✓ holding body parts for long period of time
- ✓ awkward movements, especially if they are repetitive, repeating the same movements over and over

Some of the Effects of Ergonomic Hazards

- ✓ *pain in the shoulders*
- ✓ *back injury*
- ✓ *too much impact on wrist and hands*
- ✓ *numbness in some parts of the body*
- ✓ *muscle cramps*



Figure 1.12 Ergonomic Hazards

❖ **Chemical Hazards** are present when a worker is exposed to any chemical preparation in the in any form (solid, liquid or gas). There may be chemicals which are safe, but some caregivers who are sensitive to solutions may cause skin irritation, illness or breathing problems.

Examples of chemical hazards, may be exposed to:

- ✓ *liquids like cleaning products*
- ✓ *disinfecting solutions*
- ✓ *water like conductors*

Effects of Chemical Hazards

- ✓ *Lung diseases*
- ✓ *Difficulty in breathing*
- ✓ *Allergy*

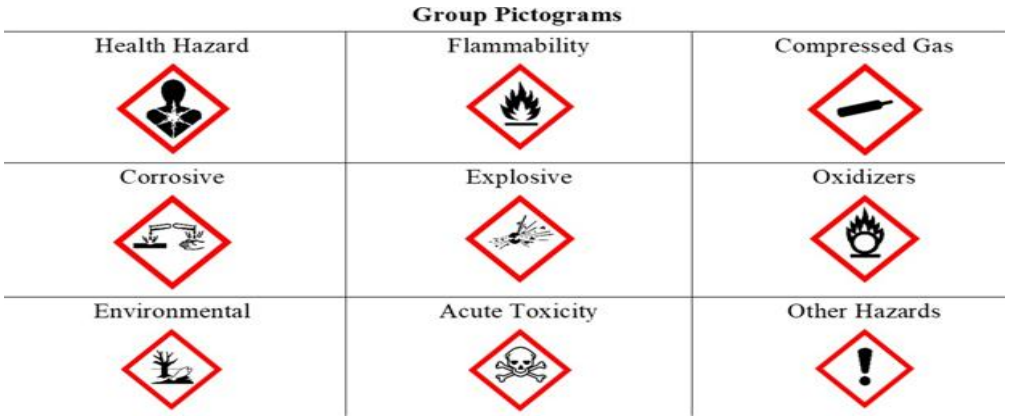


Figure 1.13: Chemical Hazards

❖ **Psychological Hazards** take place when a caregiver's work environment becomes stressful or demanding.

Examples of psychological hazards that a person may be exposed to:

- ✓ Burn out‖, fatigue and on call duty
- ✓ Unreasonable expectations from patients or clients
- ✓ Verbal abuse form dissatisfied clients
- ✓ Unreasonable expectations from supervisors and management

Some of the Effects of Psychological Hazards

- ✓ Depression
- ✓ Anxiety
- ✓ Loss of confidence
- ✓ Loss of concentration at work
- ✓ Deterioration of performance at work



Figure 1.14 :Psychological Hazards

1.2. Relevant of OHS

Occupational Health and Safety is the campaign and maintenance of the well-being of workers in every occupation. It talks about providing a safe working environment to achieve an injury-free workplace and a healthy atmosphere that protects every worker against illness. As an effect, it may also protect co-workers, family members, clients, and other members of the community who are affected by the workplace environment.

❖ **Hazard Control Procedures**

It is possible that workplace hazards can be controlled by a variety of methods. Of course, the very reason why hazards should be controlled is to prevent workers from being exposed to occupational hazards. Hazard control comes in different processes. But one method may be more effective than the others.

When we speak of controlling hazards and risks, it means settling on the measure that will solve the trouble most successfully. There are five major categories of control measures: elimination, substitution, engineering controls, administrative controls and personal protective equipment.

1. *Eliminating* a hazard means removing it completely.

2. *Substitution* is replacing or substituting a hazardous agent or work process with a less dangerous one.

3. *An engineering control* may mean changing a piece of machinery (for example, using proper machine guards) or a work process to reduce exposure to a hazard.

4. *An administrative control* may mean working a limited number of hours in a hazardous area is an example of an administrative control (for example, job rotation)

5. *Personal Protective Equipment* includes ear and eye protection, respirators and Protective clothing.

Obviously, the best method of controlling hazards and risks is through elimination. That is to take away or to get rid of the hazard. However, more often than not, this is not possible. So, employers make use of any of the remaining control measures. The general rule is that the use of personal protective equipment (PPE) should be the last alternative in controlling hazards and risks in a workplace. Although it is said that the best method of control measure is through elimination of hazards, a very good technique for a safe and healthy environment is through the utilization of a combination of methods

❖ **Emergency procedures**

Workplaces need a plan for emergencies that can have a wider impact. Special procedures are needed for emergencies such as serious injuries, explosion, flood, poisoning, electrocution, fire, release of radioactivity and chemical spills.

Quick and effective action may help to ease the situation and reduce the consequences. However, in emergencies people are more likely to respond reliably if they:

- ✓ are well trained and competent
- ✓ take part in regular and realistic practice
- ✓ have clearly agreed, recorded and rehearsed plans, actions and responsibilities

Write an emergency plan if a major incident at your workplace could involve risks to the public, rescuing employees or coordinating emergency services. Where you share your workplace with another employer you should consider whether your emergency plans and procedures should be co-ordinated.

Points to include in emergency procedures

- Consider what might happen and how the alarm will be raised. Don't forget night and shift working, weekends and times when the premises are closed, eg holidays
- Plan what to do, including how to call the emergency services. Help them by clearly marking your premises from the road. Consider drawing up a simple plan showing the location of hazardous items
- If you have 25 tonnes or more of dangerous substances, you must notify the fire and rescue service and put up warning signs
- Decide where to go to reach a place of safety or to get rescue equipment. You must provide suitable forms of emergency lighting
- You must make sure there are enough emergency exits for everyone to escape quickly, and keep emergency doors and escape routes unobstructed and clearly marked
- Nominate competent people to take control (a competent person is someone with the necessary skills, knowledge and experience to manage health and safety)
- Decide which other key people you need, such as a nominated incident controller, someone who is able to provide technical and other site-specific information if necessary, or first-aiders
- Plan essential actions such as emergency plant shutdown, isolation or making processes safe. Clearly identify important items like shut-off valves and electrical isolators etc.

❖ **Fire control Procedures**

Fire - Building Occupants Are Required by Law to Evacuate a Building When the Fire Alarm Sounds.

- Inform people in the immediate area to evacuate.
- If you witness a fire, activate the nearest building fire alarm and exit the building.
- When safe, immediately call 911.

- If the fire is small (wastebasket sized or smaller) and you have been trained to use a fire extinguisher, you may attempt to extinguish the fire. Make sure that you have a safe exit from the fire area and use the buddy system. If you cannot put out the fire in 5 seconds, evacuate.
- On your way out, warn others.
- Move away from fire and smoke. Close doors and windows behind you, if time permits.
- Before opening a door, place the back of your hand on the door to check for heat. If cool, slowly check the door handle for heat and proceed to exit.
- If the door is hot, do not open it. Find or create an alternative exit (windows). If no other exit is available and you only see smoke, open the door slowly, move to a crawling position, staying low, and quickly crawl to an exit.
- If the door is hot and fire is present, keep the door shut. Place any type material at the base of the door to keep smoke from entering the room.
- Exit using stairs. Do not use elevators during a fire.
- Evacuate the building as soon as the alarm sounds and proceed to the designated evacuation zone.
- Do not re-enter the building or work area until you have been instructed to do so by the emergency responders.

To use a **fire extinguisher,** remember the acronym **PASS:**

P - PULL safety pin from handle.

A - AIM nozzle at base of fire.

S - SQUEEZE the trigger handle.

S - SWEEP from side to side

❖ **Accident Procedures**

- **Keep Safety First**

Drivers involved in minor accidents with no serious injuries should move cars to the side of the road and out of the way of oncoming traffic. Leaving cars parked in the middle of the road or busy intersection can result in additional accidents and injuries. If a car cannot be moved, drivers and passengers should remain in the cars with seat belts fastened for everyone's safety until help arrives. Make sure to turn on hazard lights and set out cones, flares or warning triangles if possible.

❖ **Exchange Information**

After the accident, exchange the following information: name, address, phone number, insurance company, policy number, driver license number and license plate number for the driver and the owner of each vehicle. If the driver's name is different from the name of the insured, establish what the relationship is and take down the name and address for each individual. Also make a written description of each car, including year, make, model and color — and the exact location of the collision and how it happened.

❖ **Photograph and Document the Accident**

Use your camera to document the damage to all the vehicles. Keep in mind that you want your photos to show the overall context of the accident so that you can make your case to a claims adjuster. If there were witnesses, try to get their contact information; they may be able to help you if the other drivers dispute your version of what happened.

❖ **Call the Police to File an Accident Report**

Even if the accident was not serious, or there was minimal damage, call the police to ensure that the accident is thoroughly investigated and that all parties' interests are protected. If the accident was minor, you and the other drivers may decide to handle the damages yourselves without the involvement of an insurance company or the police.

- **What to Put on the Report?**
  - Date, time, and location of accident
  - Your driver's license, registration, and insurance information
  - Other driver's license, registration, and insurance information

- A description of what happened to include your direction of travel, other driver's direction of travel, whether the accident happened at an intersection or mid-block, and location of damage on the vehicles. (Example: "I was going west on Main Street in the right lane through the intersection of Parker Road. The other car came from my right on Parker Road and hit the passenger side front door with its driver's side front end.")
- Name, address, and phone number of any passengers in your car
- Name, address, and phone number of any witnesses

❖ **Practical Ways to Prevent Hazards and Risks**

- **A Closer Look at Electricity**
  - As common sense dictates, you have to ensure that all electrical equipment you use is in good condition.
  - Check electrical cords and make sure they are not frayed.
  - Your hands should be dry before attempting to use any electrical equipment.
  - Do not attempt to change fuses unless you know what you are doing.
  - Do not turn on all appliances at the same time just because you want to save time

❖ **Strategies to Ensure Safe Work Practices**

Safe work practices Safe work practices (SWP) are usually written methods showing how to perform a task with minimum risk to personnel, equipment, materials, environment and processes. These are guidelines like do’s and don’ts but may not always be suitable when a new hazard been identified. Employees should know, understand and follow the SWPs those are applicable to own work.

❖ **Safe Work Practices (SWP)**

Safe work practices (SWP) are developed as an outcome of a hazard assessment and these should conform to the practices within the concerned industry. These guidelines help the workers to work in the safest way unless a new hazard been identified. SWPs are not step

by step procedures. As the new workers are more prone to accidents at workplaces, they need to be trained more on SWP. An example of SWP is placing a notice 'mind your steps' at the beginning of a staircase.

The following features are helpful in implementing safe work practices at workplace:

- Induction training for new employees.
- Training on communication and teamwork during normal and emergency situation.
- Training on fire safety and emergency procedures.
- Training on hazard identification, risk control, use of personal protection equipment (PPE) and first aid.
- Observation of ergonomics to reduce injuries to workers.
- Use and maintenance of appropriate tools for work and keeping them in good working condition.
- Handling, application, labaelling and storage of hazardous and non-hazardous materials so the workers are not exposed to danger.
- Adherence to policies and procedures to set standard actions and reactions understandable by all and to reduce chaos in an emergency.

1.3 Safety Procedures and Reporting Hazards

Housekeeping, cleaning and waste disposal considering environment safety and health (ESH). A safe work procedure (SWP) is an integral part of the risk management process as it outlines the hazards, risks and associated controls measures to be applied to ensure the task/activity is conducted in a way to reduce the risk of injury.

Job step	One part of the step by step sequence of the activity/task.
Hazard	A hazard is anything that has the potential to cause injury or disease to people, damage to the environment, property, plant or equipment.
Risk	The likelihood that a hazard will result in injury, illness, loss or damage to

	people, to the environment, property, plant or equipment and the potential consequences of that injury, illness, loss or damage.
Risk control	Risk control is a method to manage the risk to a level as low as reasonably practicable.
Work	Any activity or process undertaken
Workers	All persons who work for e.g. employees, contractors, students and volunteers.

❖ **Developing Safe Work Procedures**

A safe work procedure should be developed after being identified as a:

- corrective action in an incident/hazard report, or
- risk control measure in a risk assessment.
- Some specific examples where this may be the case includes:
- if there was an incident in the past involving that job
- new jobs where a risk assessment determines the need
- work on energized electrical installation
- demolition work
- removal of asbestos
- when undertaking work on roofs.

❖ **Hazard/Incident Reporting Procedure**

All workers, including contractors, are required to complete an ***Accident and Incident Report Form or Hazard and near- Miss Report Form if a hazard/injury/incident*** occurs as a result of work undertaken on behalf of premises or whilst on a work break or work travel.

- **What should be reported?**
  - All Injuries- events that cause an illness or injury requiring medical action
  - All Incidents- events that cause a minor injury of a first aid nature

- All Near-Misses- events that do not cause injury but have the potential to do so
- All Hazards-anything which has the potential to cause ill health or injury.

❖ **Action to be taken**

Workers who experience a hazard/injury/incident are required to take the following action: Advise their manager of the incident, hazard or near-miss as soon as reasonably able

- Complete the relevant form and provide this to the People and Culture team; if necessary their manager may submit the relevant form on their behalf
- The People and Culture team will record all reports and will advise, assist and investigate using the Incident and Hazard Risk Assessment form where required
- The internal reporting of incidents, hazards and near-misses is separate from reporting not fixable incidents to Compared.

1.4 Personal Protective Equipment

Where it is not possible for emissions to be controlled at their source, or removed or reduced through effective ventilation, extraction or diversion, the use of personal protective equipment (PPE) as a final measure must be considered to ensure safety.

PPE is a lower order control and can only be used where higher order controls are not possible or are not totally effective. Selection and use of PPE requires careful consideration, as there are many different types that reduce the risk of injury of contact or exposure to a hazard. Incorrect use of PPE, or purchasing inappropriate PPE, can contribute to serious workplace incidents.

PPE that is uncomfortable, restrictive or heavy may create secondary hazards, and, as a result, constant supervision may be necessary to ensure it is used effectively.



Figure 1.15: Personal Protective Equipment's

- **Types of Personal Protective Equipment**

This guideline provides information on the following types of PPE:

- Hand Protection (gloves)
- Eye Protection (goggles, safety glasses, face shields)
- Face Protection and infection prevention (eye wear, face shield, surgical mask
- Hearing Protection (ear plugs, ear muffs
- Laser Safety
- Skin Integrity and Protection (sunscreen, alcohol gel

- Protective Clothing (high visibility garments, thermal wear, overalls, aprons, lead aprons, reflective vests, impervious long-sleeve gowns)
- Footwear (enclosed shoes, safety boots)
- Head Protection (hard hats, helmets, sun hats, bike helmet)
- Falls Protection (safety harness).

❖ **Personal Protective Clothing**

Protective clothing is either re-usable or disposable. It is used to protect or replace the worker's street clothes or uniform when undertaking specific tasks.

Where protective clothing is used it should be removed before leaving the work area, and should not be used in areas where food is consumed Aprons and gowns are to be worn as required to prevent disease transmission (refer laboratory and infection control procedures) Lead aprons or shielding must be use for protection when undertaking radiation exposure prone procedures. All other persons should withdraw behind protective screens Operating theatre attire is to be used in line with Safe Work Procedure and /or clinical standards.

Which will state?

- PPE type to be worn;
- areas in which to be worn; and
- advice on when to be removed

High visibility vests / clothing are to be worn as per SA Health Corporate Framework

Signage must be displayed as required

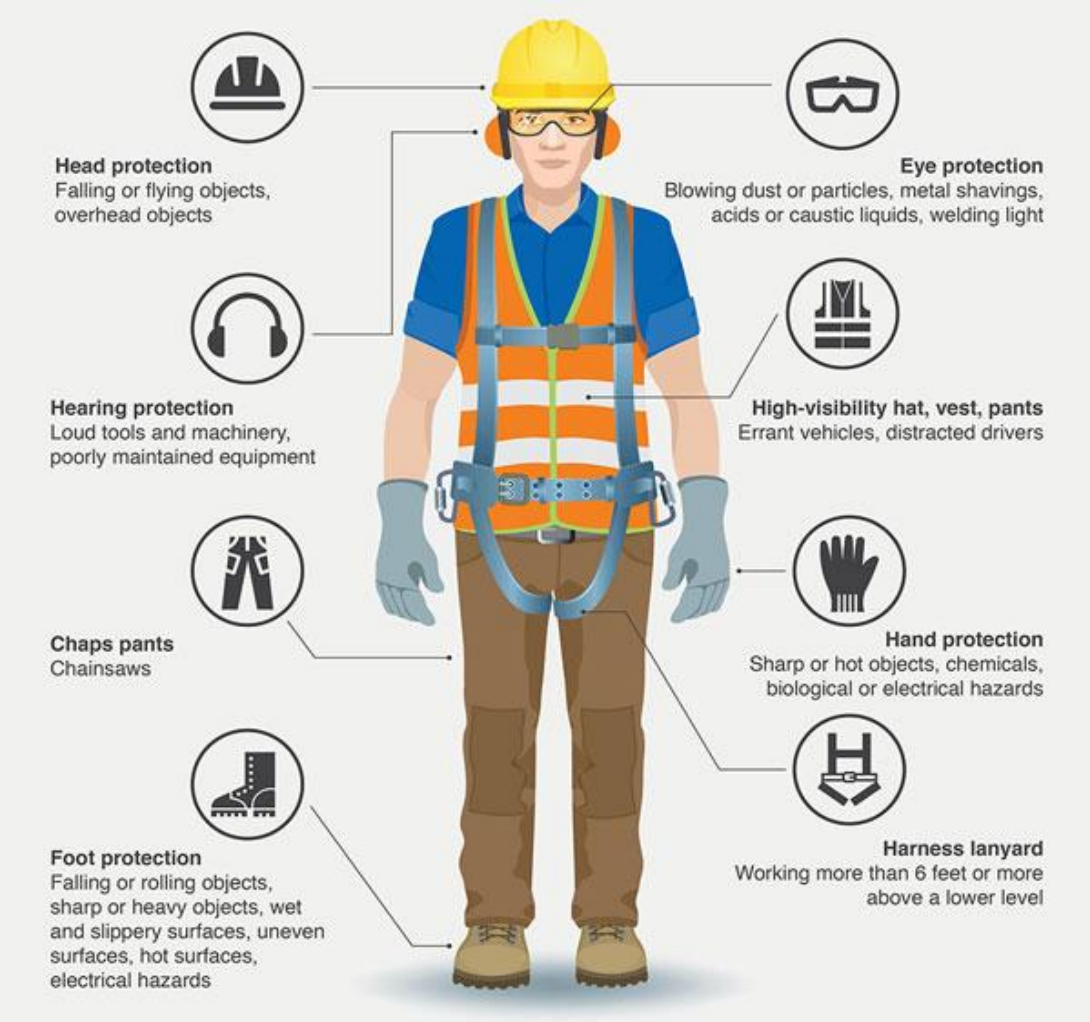


Figure 1.16: personal protective clothing

Self-Check-1	Written Test

Name: _____ Date: _____

Time started: _____ Time finished: _____

Directions: Answer all the questions listed below.

1. Which one is the following Effects of Psychological Hazards?

   A. Depression B. Lung diseases

   C. Loss of confidence D. liquids like cleaning products

2. Which one is the following Effects of Ergonomic Hazards?

   A. Depression B. pain in the shoulders

   C. Loss of confidence D. liquids like cleaning products

3. which one is the following Effects of Chemical Hazards?

   A. Depression B. Lung diseases

C. Loss of confidence D. liquids like cleaning products

4. Which one of the following are not major categories of control hazard measures?

   A. substitution B. engineering controls C. administrative D. swp

5. Which one of the following are helpful in implementing safe work practices at workplace?

A. Training on fire safety and emergency procedures.

B. Training on hazard identification, risk control, use of (PPE)& first aid.

C. Observation of ergonomics to reduce injuries to workers.

D. Use and maintenance of appropriate tools for work and keeping them in good working condition.

E. All

6. Which one is the Worker experience a hazard are required to take the faction?

A. People and Culture team will record all reports

B. Complete the relevant form and provide to the People

C. injury requiring medical action

D. A and B

Instruction: Say TRUE and FALSE

7. Incident is the following include Workers should be reported the accident occur?
8. gloves are for Eye protective equipment?
9. eye wear is for hand Protection equipment?
10. enclosed shoes are for Footwear Protection equipment?

LAP Test	**Practical Demonstration**

Name: _____Date: _____

Time Started: _____ Time Finished: _____

Instructions: You are required to perform the following in -

Collect all the necessary item used _____and arrange it in front of your trainer:

A. _____

B. _____

C. _____

Unit Two: personal wellbeing in a work environment

1. _____

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

2. _____.

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics –

3. _____

Note: Evaluation will be based on the performance following procedures:

4. _____.

- personal wellbeing

A. _____

- tidy and clean personal work area

B. _____

C. _____

This unit will also assist you to attain the learning outcome stated in the above unit.

Note: Satisfactory rating – all essential procedures are performed

Specifically, upon completion of this Learning Guide, you will be able to

Unsatisfactory – essential procedures are not being performed

- Assess risks to personal wellbeing

- Follow procedures for maintaining a tidy and clean personal work area

2.1 Personal Wellbeing

Risk assessment involves considering what could happen if someone is exposed to a hazard (consequence) and the likelihood of it happening. For work on energized electrical equipment, the ES Regulation requires that a risk assessment be prepared in writing by a competent person.

A risk assessment can help determine: the severity of an electrical risk whether existing control measures are effective what action you should take to control an electrical risk how urgently the action needs to be taken.

- To assess the risk associated with electrical hazards consider:
- What is the potential impact of the hazard?
- How severe could the electrical hazard be? For example, direct contact causes electrocution, fire or explosion causing serious burns or death.
- How many people are exposed to the hazard?
- How likely is the hazard to cause harm?
- Could it happen at any time or would it be a rare event?
- How frequently are workers exposed to the hazard?

Other factors that may affect consequence and likelihood include: the conditions under which the electrical equipment is used, for example wet conditions outdoors or confined spaces work practices and procedures, for example isolation, to carry out maintenance the capability, skill and experience of relevant workers.

❖ **Workplace well-being**

Workplace Wellbeing relates to all aspects of working life, from the quality and safety of the physical environment, to how workers feel about their work, their working environment, the climate at work and work organization. The aim of measures for workplace well-being is to complement OSH measures to make sure workers are safe, healthy, satisfied and engaged at work.

Workers well-being is a key factor in determining an organization's long-term effectiveness. Many studies show a direct link between productivity levels and the general health and well-being of the workforce.

Risks to personal wellbeing

- Smoking, alcohol and drug use
- Lack of sleep

- Poor diet
- Lack of exercise
- Stress
- Not using appropriate methods when lifting or moving heavy objects
- Not wearing proper personal protective clothing
- Not using appropriate personal protective equipment

2.2 procedures for maintaining a tidy and clean personal work area

Cleaning and maintenance of PPE in work area

❖ **Cleaning**

While good cleaning reduces contamination, bad cleaning increases contamination.

Check your workplace for any of the signs that indicate a poor cleaning system:

- floors are not fully dry and can be accessed
- spills and contaminants are left unattended
- a build-up of cleaning product residues (reduces slip resistance)
- cleaning equipment and cords left across walkways
- cleaning is ad hoc, unplanned and reactive
- poor, inappropriate or dirty cleaning equipment used
- Incorrect cleaning products and procedures.
- Decide on control measures

There are a range of strategies that have been proven to control the risk of slips, trips and falls, while also leaving floors and other surfaces clean and free from contaminants. The best cleaning requires a combination of important elements, as listed below.

❖ **Cleaning methods:**

- leave a clean and dry surface, free from moisture or dry waste – e.g. 'clean-to-dry'
- do not leave a build-up of cleaning products
- maintain the slip resistant properties of the floor/surface (if non-slip flooring)
- are based on advice from the flooring supplier
- are tailored to the specific flooring and contaminants – i.e. type and concentration of chemicals etc. For example, the time detergent is on the floor has been shown to have a significant effect on cleanliness. It is also noted that flooring that is slip resistant can be cleaned to be as hygienic as other flooring.

❖ **Cleaning schedules:**

- are systematic and well planned
- have routine daily cleaning conducted during quiet/slow periods
- include periodic deep/comprehensive cleaning
- provide a rapid/urgent response to spills
- include indoor and outdoor areas
- include customer/visitor areas
- Accommodate for periods of bad weather.

❖ **Cleaning equipment/products:**

- suited to the task, environment and the users
- don't spread the problem (e.g. paper-towel instead of wet mop for small spill, or 'spill-kit' materials for oil leaks, spill stations where resources are kept etc.)

- includes barriers and signs to keep people off any wet areas if 'clean-to-dry' is not possible.

❖ **Personnel responsible for cleaning:**

- cleaners are trained, equipped and supervised to do routine cleaning
- all workers assist in spot cleaning/spills management
- supervisors are trained and able to oversee work practices
- Workplace visitors and others encouraged to report hazards where appropriate.

Details regarding the correct cleaning system may be provided in a Safe Work Method Statement or other procedural guidance.

❖ **Cleaning methods to consider**

The cleaning method you use will depend on a number of factors. This is best decided in consultation with the flooring and cleaning equipment suppliers based on the workplace's requirements. A combination of methods may be used across the workplace. The following table is from a review of cleaning options for health settings, and may be relevant to other similar settings.

❖ **Maintenance**

The maintenance of buildings and equipment may be the most important element of good housekeeping. Maintenance involves keeping buildings, equipment and machinery in safe, efficient working order and in good repair. It includes maintaining sanitary facilities and regularly painting and cleaning walls. Broken windows, damaged doors, defective plumbing and broken floor surfaces can make a workplace look neglected; these conditions can cause incidents and affect work practices. So it is important to replace or fix broken or damaged items as quickly as possible. A good maintenance program provides for the inspection, maintenance, upkeep and repair of tools, equipment, machines and processes

❖ **Dust and Dirt Removal**

Enclosures and exhaust ventilation systems may fail to collect dust, dirt and chips adequately. Vacuum cleaners are suitable for removing light dust and dirt that is not otherwise hazardous. Industrial models have special fittings for cleaning walls, ceilings, ledges, machinery, and other hard-to-reach places where dust and dirt may accumulate.

Special-purpose vacuums are useful for removing hazardous products. For example, vacuum cleaners fitted with HEPA (high efficiency particulate air) filters may be used to capture fine particles of asbestos or fiberglass.

Dampening (wetting) floors or using sweeping compounds before sweeping reduces the amount of airborne dust. The dust and grime that collect in places like shelves, piping, conduits, light fixtures, reflectors, windows, cupboards and lockers may require manual cleaning.

Compressed air should not be used for removing dust, dirt or chips from equipment or work surfaces.



Figure 17:Blower

Self-Check -2

Written Test

Name: _____ Date: _____

Time started: _____ Time finished: _____

Instructions: Answer the following questions if the statement is true say TRUE if the statement is false say FALSE

1. Higher order machinery and equipment risk controls are preventative by nature.
2. Lower order machinery and equipment risk controls, such as personal protective equipment (PPE), can prevent injuries.
3. Risk controls must be applied to the hazards to prevent or reduce the risk.

Instruction: Answer the following questions to the alternator

1. Which one are not the following Cleaning schedules?
   A. include periodic deep/comprehensive cleaning
   B. provide a rapid/urgent response to spills
   C. include indoor and outdoor areas
   D. . liquids like cleaning products
2. Which one is the following Cleaning equipment/product?

   A. Depression B. suited to the task, environment and the users

   C. Loss of confidence D. liquids like cleaning products

Operation Sheet 2 Following procedures for maintaining a tidy and clean personal work area

Operation Title: Following procedures for maintaining a tidy and clean personal work area

Instruction: Read and Apply Procedures

Purpose: To understand safety procedures

Required tools and equipment: cleaning Tools from Workshops Like broom, sweeper, PPE,

Precautions:

- use safety precaution while touching Electricity
- Properly use PPE

Procedures:

The techniques for procedures for maintaining a tidy and clean personal work area;

- Steps1-wears personal protective safety equipment before work (PPE)
- Step 2 – read instructions and apply safety rule.
- Step 3- select appropriate hand tools, equipment's& raw material
- Step 4 - use properly the right tools on the right job
- Step5 –maintain single phase electrical distribution bored
- Step6- Cheek the output result
- Step 7- clear work area and maintain hand tools and equipment's.
- Step 8 – Ruse, dispose and recycle raw materials.

Quality criteria:

- OHS requirements

LAP TEST 2 PRACTICAL DEMONSTRATION

Name: _____ Date: _____

Time started: _____ Time finished: _____

Instructions: Given necessary templates, tools and materials you are required to perform the following tasks within 8 hours.

Task 1: clean all workshops according to OHS procedures

Unit three: Self and Others safety

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Endanger own safety and other
- Report incidents and injuries.
- Activities to foster safe working.

This unit will also assist you to attain the learning outcomes stated in the above unit.

Specifically, upon completion of this learning guide, you will be able to:

- Identify situations of endanger own safety and other
- Report incidents and injuries.
- Obtain activities to foster safe working.

3.1 Endanger Own Safety and Other Workers

We understand that sometimes accidents do happen, but it's important that employees understand the need to remain accountable and responsible for their own health and safety and do not solely rely on their employers.

With that in mind we have created a quick guide to help you, the employer understands the responsibilities your team have to uphold health and safety in the workplace.

- **Taking Care of Personal Health and Safety**

It goes without saying that a happy workforce is a healthy one. Outside of work, employees are free to do as they please but as an employer you do have the right to expect that a high level of general health is upheld. This helps to ensure that staff members can adequately and safely perform their duties when at work.

- **Remaining Alert in The Workplace**

Whilst as an employer you will have made every attempt to provide a completely safe workplace, accidents do happen and equipment can break. It's important that staff is able to remain alert, are able to spot any hazards and understand how to appropriately deal with these situations in order to avoid any issues. Employees should also be able to safely be aware of their physical state. For example, if a member of staff begins to feel excessively stress, tired or unwell, they should know when to stop working in order to remain safe. This is especially true for those using heavy equipment and machinery.

- **Working with Your Employee on Health and Safety**

As an employer you will have put training procedures into place to help keep staff safe. However, training does not always need to come from management and your team members should be both willing and able to suggest new training that could further help them with their duties and health and safety.

Sometimes staff can be unsure about asking employers for health and safety checks for fear of feeling annoying or awkward so why not suggest they use the NHS Workplace Health Check. The online service will score their environment and help them to to feel confident when bringing up any issues.

You should also expect employees to be able to talk with you about how they are feeling, as you should always be aware if there are any issues with staff performing their work duties, safely and correctly. Ill, injured or stressed staff should talk to you straight away about any difficulties they may be facing.

❖ **Thinking of Others Health and Safety**

Staff members also have a responsibility to look out for their peers and colleagues. Acting recklessly or carelessly in the workplace could have an effect on surroundings, peoples action and could ultimately endanger other employees.

They should never interfere or misuse any precautions that have been put into place by you as the employer to help with health and safety such as fire exits and alarms. Likewise, you should always be made aware of any other staff members that have done so as this is hugely important for every staff members health and safety.

What happens if there has been an issue?

It's important that staff feel they can approach you with and health and safety issues within the workplace. To help employees further understand general health and safety policies they. They should also be aware that if they have spoken to a member of management and are still worried that their issues have not been resolved, they are able to contact a local health and safety authority to inspect the issue.

3.2 Report Incidents and injuries

❖ **Injury**

a. First Aid Injuries: An injury that requires onsite first aid by the Campus Nurse, Security or Departmental First Aid Delegate.

b. Health Care Injuries: An injury that requires onsite medical evaluation/care from the Campus Nurse Practitioner or an offsite Medical Professional.

c. Lost time Injuries: An injury that requires lost time from work beyond the day of the injury, for employees.

- loss of blood;
- involves the fracture of a leg or arm, but not a finger or toe;
- involves the amputation of a leg, arm, hand or foot but not a finger or toe;
- Consists of burns to a major portion of the body; or
- Causes the loss of sight in an eye.
- Fatality: An injury causing death.

❖ **Other persons authorized or nominated by the organisation**

We call the person who represents you a nominated representative. A representative is a person or organization who can talk with and act with us on your behalf. You can control how much of your information they are able to access. You can ask them to discuss some things, or everything, and they can also receive your payments.

3.3 Activities to Foster Safe Working

❖ **Problem solving meetings**

What is a problem-solving meeting, and what is its purpose? The purpose of a problem-solving meeting is to find a resolution—or at least determine the steps to a resolution—for someone who's facing a challenge. Most often this meeting is held between a manager and the employee(s) undergoing the issue.



Figure 3.18: Problem solving meetings

❖ **Suggestion Schemes**

As a safety professional, you're trained to recognize safety issues in the workplace. More than that, you have to train your workforce to recognize safety hazards when they arise and how to go about their workday safely.

It's easy to get comfortable in these roles. Safety professionals have the safety knowledge, workers receive it. Safety professionals set safety expectations, workers follow them. Safety professionals name safety issues, workers follow instructions to correct them. But if this is a familiar pattern for your safety team, you're actually missing out on the real value of safety suggestions from workers. In fact, workers can offer something that safety professionals can't and asking them for suggestions is one of the best ways to get employees involved.

Regular communication with team leaders Describing effective communication as a 2-way street is passé. Communication for leaders is much more complicated, and leaders at all levels need to know a whole lot more than the mechanics of sending and receiving information. Harnessing the ability to communicate effectively is one of the most important skills a leader can have.

Here are some important things to remember about communication for leadership:

Essential Communication Skills for Leaders

- Ability to Adapt Your Communication Style. ...
- Active Listening. ...
- Transparency. ...
- Clarity. ...
- Ability to Ask Open-Ended Questions. ...
- Empathy. ...
- Open Body Language. ...
- Receiving and Implementing Feedback

Self-Check -3	Written Test	Name: _____

____ Date: _____

Time started: _____ Time finished: _____

Instructions: Give short Answer for the following questions

1. ____It goes without saying that a happy workforce is a healthy one?
   A. Taking Care of Personal Health and Safety
   B. Thinking of Others Health and Safety
   C. PPE, Clothing and Hair
   D. Remaining Alert in The Workplace
2. ___Whilst as an employer you will have made every attempt to provide a completely safe workplace, accidents do happen and equipment can break?
   A. Remaining Alert in The Workplace

B. PPE, Clothing and Hair

C. Taking Care of Personal Health and Safety

D. Thinking of Others Health and Safety

3. Which one is not electric current flowing through the body can cause by?

A. electric shock C. electrocution

B. burns caused by electric current and arc flash D. depression

4. Which one is not the following Characteristics of reports?

A. Clear and well-structured format

B. Provides a brief of instruction and guideline

C. Easy to locate and follow

D. liquids like cleaning products

5. Which one is the following use written instruction?

A. Train Your Employees C. Investigate Accidents

B. Inspect Your Workplace D. Keep an Open Dialogue

6. _____Are Keep records of all first aid treatment, inspections, incident investigations, and training activities? (3pt)

A. Inspect Your Workplace B. Investigate Accidents

C. Train Your Employees D. Keep an Open Dialogue

Unit Four: Emergency procedures
This unit is developed to provide you the necessary information regarding the following content coverage and topics: • Emergency Procedures • Range of Emergencies. • Supervisors. This unit will also assist you to attain the learning outcomes stated in the above unit. Specifically, upon completion of this learning guide, you will be able to: • Emergency Procedures • Respond to A Range of Emergencies. • Get Help from Team Members or Supervisors.

4.1. Emergency procedures

Workplaces need a plan for emergencies that can have a wider impact. Special procedures are needed for emergencies such as serious injuries, explosion, flood, poisoning, electrocution, fire, release of radioactivity and chemical spills.

Quick and effective action may help to ease the situation and reduce the consequences. However, in emergencies people are more likely to respond reliably if they:

- are well trained and competent

- take part in regular and realistic practice
- have clearly agreed, recorded and rehearsed plans, actions and responsibilities

Write an emergency plan if a major incident at your workplace could involve risks to the public, rescuing employees or co-coordinating emergency services. Where you share your workplace with another employer you should consider whether your emergency plans and procedures should be co-ordinate.

❖ **Points to include in emergency procedures**

- Consider what might happen and how the alarm will be raised. Don't forget night and shift working, weekends and times when the premises are closed, eg holidays
- Plan what to do, including how to call the emergency services. Help them by clearly marking your premises from the road. Consider drawing up a simple plan showing the location of hazardous items
- Decide where to go to reach a place of safety or to get rescue equipment. You must provide suitable forms of emergency lighting
- You must make sure there are enough emergency exits for everyone to escape quickly, and keep emergency doors and escape routes unobstructed and clearly marked
- Nominate competent people to take control (a competent person is someone with the necessary skills, knowledge and experience to manage health and safety)
- Decide which other key people you need, such as a nominated incident controller, someone who is able to provide technical and other site-specific information if necessary, or first-aiders
- Plan essential actions such as emergency plant shutdown, isolation or making processes safe. Clearly identify important items like shut-off valves and electrical isolators etc
- You must train everyone in emergency procedures. Don't forget the needs of people with disabilities and vulnerable workers

4.2Range of emergencies

❖ **What is an Emergency?**

Emergency is a situation that poses an immediate risk to health, life, property ,or environment . Most emergencies require urgent intervention to prevent a worsening of the situation, although in some situations, mitigation may not be possible and agencies may only be able to offer palliative care for the aftermath.

❖ **Responding to a range of emergencies**

Environmental emergencies, including hurricanes, floods, wildfires, oil spills, chemical spills, acts of terrorism, and others, threaten the lives and health of the public, as well as those who respond. Responders are normally the first on the scene of an emergency, and range from police, fire, and emergency health personnel, to community volunteers. As they work to bring the emergency under control, and save lives and property, they may expose themselves to potentially harmful conditions and contaminants.

❖ **Electrical Emergency Response**

The following instructions provide guidelines for handling three types of electrical emergencies.

❖ **Electric Shock**

When someone suffers serious electrical shock, he or she may be knocked unconscious. If the victim is still in contact with the electrical current, do not touch the person and immediately turn off the electrical power source. If you cannot disconnect the power source, try to separate the victim from the power source with a nonconductive object, such as a wood-handled broom. Have someone call for emergency medical assistance immediately. Administer first aid, as appropriate.

Important

Do not touch a victim that is still in contact with a power source; you could electrocute yourself.

Electrical Fire

If an electrical fire occurs, try to disconnect the electrical power source, if possible. If the fire is small, you are not in immediate danger, and you have been trained in fighting fires, use any type of fire extinguisher except water to extinguish the fire.

Important

do not use water on an electrical fire.

4.3 Gate help from team members

The first rule of team building is an obvious one: to lead a team effectively, you must first establish your leadership with each team member. Remember that the most effective team leaders build their relationships of trust and loyalty, rather than fear or the power of their positions.

- ***Consider each employee's ideas as valuable***. Remember that there is no such thing as a stupid idea.
- ***Be aware of employees' unspoken feelings***. Set an example to team members by being open with employees and sensitive to their moods and feelings.
- ***Act as a harmonizing influence***. Look for chances to mediate and resolve minor disputes; point continually toward the team's higher goals.
- ***Be clear when communicating***. Be careful to clarify directives.
- ***Encourage trust and cooperation among employees on your team***. Remember that the relationships team members establish among themselves are every bit as important as those you establish with them. As the team begins to take shape, pay close attention to the ways in which team members work together and take steps to improve communication, cooperation, trust, and respect in those relationships.
- ***Encourage team members to share information.*** Emphasize the importance of each team member's contribution and demonstrate how all of their jobs operate together to move the entire team closer to its goal.
- ***Delegate problem-solving tasks to the team***. Let the team work on creative solutions together.

❖ **supervisor**

A supervisor, or also known as foreman, overseer, facilitator, monitor, area coordinator, or sometimes gaffer, is the job title of a low level management position that is primarily based on authority over a worker or charge of a workplace. A supervisor can also be one of the most senior in the staff at the place of work, such as a Professor who oversees a PhD dissertation. Supervision, on the other hand, can be performed by people without this formal title, for example by parents. The term supervisor itself can be used to refer to any personnel who have this task as part of their job description.

Consultation and less evaluation. Nevertheless, the element of 'overseeing' is always present. However, to present supervision in these terms only does not do justice to the supervision phenomenon. It does not capture the essence of the interpersonal supervisory relationship.

Self-Check -4 Written Test

Name: _____ Date: _____

Time started: _____ Time finished: _____

Instructions: Wright the following questions listed below

1. Which one is the following include in emergency procedures?

2. Which one is not include emergency procedures (3point)

3. Which one is the following handling of electrical emergencies?

4. Which one are the following environmental emergencies?

REFEREES

Instructions: Give short Answer for the following questions listed below.

1. -------is the job title of a low level management position that is primarily based on authority over a worker or charge of a workplace?
2. ---------is the single most important factor in successful teamwork?

.

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9. a5-4551-b3f4-97679f0c8269/download/bill-19-
10. guide-web.pdf
11. www.worksafe.qld.gov.au and www.electricalsafety.qld.gov.au
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