LEARNER GUIDE

RESPOND TO, IMPLEMENT AND MANAGE EMERGENCIES ACCORDING TO AN EMERGENCY ACTION PLAN IN A WORKPLACE.

(120329)

NQF LEVEL: 3

2 CREDITS

CIN: 30016

Learner Guide

Before you get started…

Dear Learner,

This Learner Guide contains all the information to acquire all the knowledge and skills leading to the unit standard:

Title: Respond to, implement and manage emergencies according to an emergency action plan in a workplace

US No: 120329 **NQF Level:** 3 **Credits:** 2

The full unit standard is attached. Please read the unit standard at your own time. Whilst reading the unit standard, make a note of your questions and aspects that you do not understand, and discuss it with your facilitator.

This Learner Guide contains all the information, as well as the activities that you will be expected to do during the course of your study.

Please keep the activities that you have completed and include it in your **Portfolio of Evidence**.

Your **PoE** will be required during your final assessment.

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The Learning Experience……

The Purpose: This unit standard is intended for persons who are required to be able to describe the specified requirements pertaining to responding to emergencies according to action plan procedures in a workplace, Implement and manage emergency action plan procedures.

People credited with this unit standard are able to:

1. Describe the specified requirements pertaining to responding to emergencies according to an emergency action plan in a workplace.
2. Implement and manage emergency action plan procedures.
3. Respond to emergencies according to action plan procedures.

What is Assessment all about?

Assessment takes place at different intervals of the learning process and includes various activities. Some activities will be done before the commencement (**Baseline**) of the program whilst others will be done during programme (**Formative**) delivery and other after completion (**Summative**) of the program.

- You will be assessed during the course of your study. This is called ***formative assessment.***
- You will also be assessed on completion of this unit standard. This is called ***summative assessment***.

Before your assessment, your assessor will discuss the unit standard with you. The assessment experience should be user friendly, transparent and fair. Should you feel that you have been treated unfairly, you have the right to appeal. Please ask your **Assessor** about the appeals process and make your own notes.

Your activities must be handed in from time to time on request of the facilitator and the assessor. Sources of information to complete these activities should be identified by your facilitator.

Please Note

Please note that all completed activities, tasks and other items on which you were assessed must be kept in good order as it becomes part of your **Portfolio of Evidence** for final assessment.

Enjoy this learning experience…….

Module 1

1. Describe the specified requirements pertaining to responding to emergencies according to an emergency action plan in a workplace.

SO 1: Describe the specified requirements pertaining to responding to emergencies according emergency action plan in a workplace.
Learning Outcomes: After completing this module, the learner would be able to: 1. Explain the types and extent of emergencies that can occur in the workplace. 2. Explain emergency action plans and procedures in a workplace. 3. Give definitions and legal limits regarding irrespirable atmospheres. 4. Explain responses to emergencies according to action plan procedures in a workplace. 5. Explain training requirements for responding to emergencies according to an emergency action plan in a workplace.

1.1. The types and extent of emergencies that can occur in the workplace are explained.

Accidents can happen at any time but when they occur in the workplace there are a lot of extra considerations to make, especially if you are the one getting hurt. People who work in industrial environments around heavy equipment are not the only ones at risk for injury or accidents.

1. **Slips and Falls**

   These types of accidents are said to account for a third of all injuries in the workplace. Falls, in general, account for more than one million injuries each year in the United States. Slips and falls at work due to wet or damaged floors, debris on the floor, and other obstructions are the leading cause of broken bones, head injuries, and injured backs. Slips and falls have many causes, but usually one thing in common – they could have been prevented. Take the time to notify your employer if you identify anything potential hazards in your work area. Chances are, someone will be glad you did.

2. **Manual Work Activities**

If you work in an environment where heavy lifting, pulling, carrying, pushing, or moving items or equipment is necessary, you are more susceptible to back injuries, heart problems, muscle injuries, and even broken limbs. And, if you feel your job is too heavy, too difficult, too tiring or puts you at risk of injury, speak to your employer. It is the employers responsibility to assess manual work activities and control any risks. This may mean redesigning the task, or providing you with safe work procedures and appropriate instruction, training and supervision.

3. **Working Around Vehicles and Moving Equipment**

When working around vehicles and moving equipment, you may be injured getting hit by the vehicles themselves or by items falling from the vehicles. Those operating the motorized vehicles also can be severely injured if the vehicle turns over or crashes due to unbalanced loads. Driving mishaps can lead to neck injuries, head injuries, broken limbs, and traumatic injuries to other areas of the body.

4. **Electric Shock**

The fourth most common injury in the workplace relates to electricity hazards causing electrocution or electric shock. Getting zapped, shocked or burned are common causes of injuries that can often be serious or even fatal. Those who deal specifically with electricity on a daily basis are at increased risk for such injuries. There are laws in place to provide safe working areas for electricians. If you have any doubts about a procedure ask your supervisor. And, be sure to report any unsafe conditions, equipment, or work practices as soon as possible.

5. **Workplace Hazards**

Depending on the nature of your work, you may be susceptible to injuries due to on-the-job hazards like chemicals and fires. Burns, explosions, and serious injuries related to workplace hazards can be fatal. While working in potentially hazardous situations can be unavoidable, it is imperative that potential job hazards are identified and guidelines are provided to perform the job the best and safest way possible.

1.2. Emergency action plans and procedures in a workplace are explained.

An emergency action plan is a definite plan to deal with major emergencies is an important element of OH&S programs.

Besides the major benefit of providing guidance during an emergency, developing the plan has other advantages. You may discover unrecognized hazardous conditions that would aggravate an emergency situation and you can work to eliminate them. The planning process may bring to light deficiencies, such as the lack of resources (equipment, trained personnel, supplies), or items that can be rectified before an emergency occurs. In addition an emergency plan promotes safety awareness and shows the organization's commitment to the safety of workers.

The lack of an emergency plan could lead to severe losses such as multiple casualties and possible financial collapse of the organization.

An attitude of "it can't happen here" may be present. People may not be willing to take the time and effort to examine the problem. However, emergency planning is an important part of company operation.

Since emergencies will occur, preplanning is necessary. An urgent need for rapid decisions, shortage of time, and lack of resources and trained personnel can lead to chaos during an emergency. Time and circumstances in an emergency mean that normal channels of authority and communication cannot be relied upon to function routinely. The stress of the situation can lead to poor judgment resulting in severe losses.

What is the overall objective of the plan?

An emergency plan specifies procedures for handling sudden or unexpected situations. The objective is to be prepared to:

- Prevent fatalities and injuries.
- Reduce damage to buildings, stock, and equipment.
- Protect the environment and the community.
- Accelerate the resumption of normal operations.

Development of the plan begins with a vulnerability assessment. The results of the study will show:

- How likely a situation is to occur.
- What means are available to stop or prevent the situation.
- What is necessary for a given situation.

From this analysis, appropriate emergency procedures can be established.

At the planning stage, it is important that several groups be asked to participate. Among these groups, the health and safety committee can provide valuable input and a means of wider worker involvement. Appropriate municipal officials should also be consulted since control may be exercised by the local government in major emergencies and additional resources may be available. Communication, training and periodic drills will ensure adequate performance if the plan must be carried out.

1.3. Definitions and legal limits regarding irrespirable atmospheres are given.

Irrespirable atmosphere is atmosphere containing poisonous gases or a lack of sufficient oxygen as a result of combustible gases explosions, coal-dust explosions, combined gas and dust explosions, or mine fires, and which can only be entered by persons wearing breathing apparatus.

The employer must establish and maintain a system of occupational hygiene measurements, as contemplated in section 12, of all working places where the following hazard limits prevail:

- airborne pollutants
    - particulates >= 1/10 of the occupational exposure limit;
- gases and vapours >= 1/2 of the occupational exposure limit;

1.4. Responses to emergencies according to action plan procedures in a workplace are explained.

Effective emergency communication is vital. An alternate area for a communications centre other than management offices should be established in the plans, and the emergency response coordinator should operate from this centre. Management should 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.

Accounting for personnel following evacuation is critical. A person in the control centre should notify police or emergency response team members of persons believed missing.

Effective security procedures can prevent unauthorized access and protect vital records and equipment. Duplicate records of essential accounting files, legal documents and lists of employee relatives – to be notified in case of emergency – can be kept at off-site locations.

Training

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. Any special hazards, such as flammable materials, toxic chemicals, radioactive sources or water-reactive substances, should be discussed with employees. Drills should be held at random intervals, at least annually, and should include outside police and fire authorities.

Training must be conducted at least annually and when employees are hired or when their job changes. Additional training is needed when new equipment, materials or processes are introduced, when the layout or design of the facility changes, when procedures have been updated or revised, or when exercises show that employee performance is inadequate.

Personal Protection

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

Medical Assistance

First aid must be available within 3 to 4 minutes of an emergency. Worksites more than 3 to 4 minutes from an infirmary, clinic, or hospital should have at least one person on-site trained in first aid (available all shifts), have medical personnel readily available for advice and consultation, and develop written emergency medical procedures.

It is essential that first aid supplies are available to the trained first aid providers, that emergency phone numbers are placed in conspicuous places near or on telephones, and prearranged ambulance services for any emergency are available. It may help to coordinate an emergency action plan with the outsider responders such as the fire department, hospital emergency room, EMS providers and local HAZMAT teams.

1.5. Training requirements for responding to emergencies according to an emergency action plan in a workplace are explained.

Educate your employees about the types of emergencies that may occur and train them in the proper course of action. The size of your workplace and workforce, processes used, materials handled, and the availability of onsite or outside resources will determine your training requirements. Be sure all your employees understand the function and elements of your emergency action plan, including types of potential emergencies, reporting procedures, alarm systems, evacuation plans, and shutdown procedures. Discuss any special hazards you may have onsite such as flammable materials, toxic chemicals, radioactive sources, or water-reactive substances. Clearly communicate to your employees who will be in charge during an emergency to minimize confusion.

General training for your employees should address the following:

- Individual roles and responsibilities;
- Threats, hazards, and protective actions;
- Notification, warning, and communications procedures;
- Means for locating family members in an emergency;
- Emergency response procedures;
- Evacuation, shelter, and accountability procedures;
- Location and use of common emergency equipment; and
- Emergency shutdown procedures.

You also may wish to train your employees in first-aid procedures, including protection against blood borne pathogens; respiratory protection, including use of an escape-only respirator; and methods for preventing unauthorized access to the site.

Once you have reviewed your emergency action plan with your employees and everyone has had the proper training, it is a good idea to hold practice drills as often as necessary to keep employees prepared. Include outside resources such as fire and police

departments when possible. After each drill, gather management and employees to evaluate the effectiveness of the drill. Identify the strengths and weaknesses of your plan and work to improve it.

How often do you need to train your employees?

Review your plan with all your employees and consider requiring annual training in the plan. Also offer training when you do the following:

- Develop your initial plan;
- Hire new employees;
- Introduce new equipment, materials, or processes into the workplace that affect evacuation routes;
- Change the layout or design of the facility; and
- Revise or update your emergency procedures.

Drills and exercises should also be conducted to validate emergency response, business continuity and crisis communications plans and to evaluate the ability of personnel to carry out their assigned roles and responsibilities.

FORMATIVE ASSESSMENT – SO 1

Complete this Activity in your Workbook supplied by the Facilitator.

SELF ASSESSMENT		
Concept (SO 1)	**I understand this assessment criteria**	**Questions that I still would like to ask**
1.		
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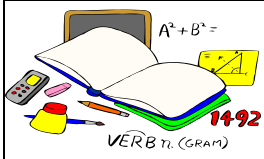

My Notes …

2. Implement and manage emergency action plan procedures.

SO 2: Implement and manage emergency action plan procedures.
Learning Outcomes: After completing this module, the learner would be able to: 1. Give the classification of risk areas. 2. Correctly demonstrate the siting, sizing and equipping of emergency evacuation assembly points. 3. Demonstrate the mapping out of evacuation routes. 4. Implement and manage the approved emergency evacuation procedure accordingly. 5. Correctly implement and manage emergency action plans and evacuation procedure training programmes are implemented and managed. 6. Ensure implementation and managing of the emergency and evacuation procedures is performed in a manner that fosters teamwork and avoids conflict.

2.1. The classification of risk areas is given.

The meaning of the word hazard can be confusing. Often dictionaries do not give specific definitions or combine it with the term "risk". For example, one dictionary defines hazard as "a danger or risk" which helps explain why many people use the terms interchangeably.

There are many definitions for hazard but the more common definition when talking about workplace health and safety is:

- A hazard is any source of potential damage, harm or adverse health effects on something or someone under certain conditions at work.

Basically, a hazard can cause harm or adverse effects (to individuals as health effects or to organizations as property or equipment losses).

Sometimes a hazard is referred to as being the actual harm or the health effect it caused rather than the hazard. For example, the disease tuberculosis (TB) might be called a hazard by some but in general the TB-causing bacteria would be considered the "hazard" or "hazardous biological agent".

What are examples of a hazard?

Workplace hazards can come from a wide range of sources. General examples include any substance, material, process, practice, etc. that has the ability to cause harm or adverse health effect to a person under certain conditions. See Table 1.

Table 1
Examples of Hazards and Their Effects

Workplace Hazard	Example of Hazard	Example of Harm Caused
Thing	Knife	Cut
Substance	Benzene	Leukemia
Material	Asbestos	Mesothelioma
Source of Energy	Electricity	Shock, electrocution
Condition	Wet floor	Slips, falls
Process	Welding	Metal fume fever
Practice	Hard rock mining	Silicosis

What is risk?

Risk is the chance or probability that a person will be harmed or experience an adverse health effect if exposed to a hazard. It may also apply to situations with property or equipment loss.

For example: The risk of developing cancer from smoking cigarettes could be expressed as "cigarette smokers are 12 times (for example) more likely to die of lung cancer than non-smokers". Another way of reporting risk is "a certain number, "Y", of smokers per 100,000 smokers will likely develop lung cancer" (depending on their age and how many years they have been smoking). These risks are expressed as a probability or likelihood of developing a disease or getting injured, whereas hazards refer to the possible consequences (e.g., lung cancer, emphysema and heart disease from cigarette smoking).

Factors that influence the degree of risk include:

- how much a person is exposed to a hazardous thing or condition,
- how the person is exposed (e.g., breathing in a vapour, skin contact), and

- how severe are the effects under the conditions of exposure.

What types of risks are there?

A common way to classify risks is by category:

1. biological - bacteria, viruses, insects, plants, birds, animals, and humans, etc.,
2. chemical - depends on the physical, chemical and toxic properties of the chemical.
3. ergonomic - repetitive movements, improper set up of workstation, etc.,
4. physical - radiation, magnetic fields, pressure extremes (high pressure or vacuum), noise, etc.,
5. psychosocial - stress, violence, etc.,
6. safety - slipping/tripping hazards, inappropriate machine guarding, equipment malfunctions or breakdowns

2.2. The siting, sizing and equipping of emergency evacuation assembly points is correctly demonstrated.

The assembly point is an area outside the building where evacuees should assemble and remain until the end of the emergency. Every organization should have an Emergency Action or Evacuation Plan. Even when it is not required (by the building owner, fire department or occupancy regulations) it is a 'best practice' for every organization to plan and practice to evacuate all personnel from the workplace. Often, evacuation focuses on getting out quickly. Surely that's the most critical objective. . While simple in principle, there are some considerations that should not be overlooked:

Too Close for Safety: The standard 'rule of thumb' for Assembly points is at least 100m from the evacuated building. This is intended to assure personnel will not be endangered is window glass or other debris falls. Keep in mind that taller buildings may have a wider potential debris pattern. Two-hundred feet should be used as the minimum. Assuring employee safety should be the priority.

Obstruction: When Emergency Services (Fire, police, ambulance) arrive, will they have sufficient room to do their job? Crowds of evacuated personnel shouldn't impede their work. Emergency services may need room to park and to turn their vehicles around. Make sure Assembly Points are a reasonable distance from entrances and drive paths- and assure personnel won't interfere.

Alternate Assembly Points: Anything can happen (and it probably will). Every Assembly Point should have an alternative - just in case the primary spot isn't available. Known (and practiced) alternatives will avoid possible chaos or personnel endangerment.

Neighbours: Evacuation is most often tested under perfect conditions. But if your building is in a crowded urban area of office park, how do you know your Assembly Points aren't the same as your neighbours - unless you ask

Communication: Once your building has been evacuated, how will you communicate with personnel at your various Assembly Points? There are plenty of options (cellular phones, walkie-talkies, runners, etc.). During a drill you may only be outside a few minutes; in a real emergency you could be there much longer . A chemical company with an 'air quality' emergency kept their employees outside for more than 90 minutes). Keep in mind: lack of communication results in rumours. You employees have cellular phones. They are a potential source of those rumours.

2.3. The mapping out of evacuation routes is demonstrated.

The principle on which means of escape provisions are based is that the time available for escape (an assessment of the length of time between the emergency starting and it making the means of escape from the workplace unsafe) is greater than the time needed for escape (the length of time it will take everyone to evacuate once an emergency has been discovered and warning given). Regardless of the location of an emergency, once people are aware of it, they should be able to proceed safely along a recognisable escape route, to a place of safety.

In order to achieve this, it may be necessary to protect the route, i.e. by providing fire-resisting construction. A protected route will also be necessary in workplaces providing sleeping accommodation or care facilities. It might also be necessary to apply positive air pressure to an escape route to discourage smoke from entering in the event of an emergency.

As an employer you must carry out a risk assessment to ensure that the means of escape remains adequate. If, as a result of your risk assessment, you propose making any changes to the means of escape, you should consult the fire authority before making any changes.

When assessing the adequacy of the means of escape you will need to take into account:

- the findings of your fire risk assessment
- the size of the workplace, its construction, layout, contents and the number and width of the available escape routes
- the workplace activity, where people may be situated in the workplace and what they may be doing when an emergency occurs
- the number of people who may be present, and their familiarity with the workplace
- their ability to escape without assistance

All workplaces must have clearly identified means of escape in the event of an emergency. These escape routes must be kept clear at all times to ensure that everyone can exit the workplace in the event of an emergency. Take care if placing notice boards in escape corridors/ routes as any paper on the board could be fuel in the event of an emergency. Arrangements must be conveyed to all those occupying the workplace and particularly to personnel such as fire wardens who will be assisting in overseeing any emergency evacuation. To understand what type of emergency evacuation routes might be needed, consideration should be given to the relevant Building Regulations.

Escape routes should be kept clear of all obstructions. Generally, escape routes should be at least one metre wide. The escape route should lead to a place of safety, normally

outside and away from the building. Doors on escape routes must always be available for use without the use of a key.

Depending on the risk, push pads or panic bar devices should be used. Security should never take precedence over safety. Many devices are now available that satisfy both safety and security requirements. Where there are roller shutters or security grills fitted on an escape route, these must be open when persons are on the premises

When considering the escape routes from a place of work, an employer must be sure that that he has evaluated the entire journey to a place of safety. All routes must be kept clear, including areas outside the premises that are included in the escape route.

Employees must be made aware of all possible escape routes and emergency drills should be used regularly to practice using them as part of emergency routines.

All premises should have an escape plan that clearly identifies the action that employees and others should take in the event of a fire. This may include duties for employees to check areas are clear, close doors and assist others.

Alternative escape routes

When specific escape routes are provided that do not form part of normal circulation routes it is important that employees are made aware of these. A management system should be in place to ensure these routes and exits are kept clear and usable.

2.4. The approved emergency evacuation procedure is implemented and managed accordingly.

A disorganized evacuation can result in confusion, injury, and property damage. When developing your emergency action plan, it is important to determine the following:

- Conditions under which an evacuation would be necessary
- Conditions under which it may be better to shelter-in-place
- A clear chain of command and designation of the person in your business authorized to order an evacuation or shutdown
- Specific evacuation procedures, including routes and exits
- Specific evacuation procedures for high-rise buildings

    - For employers
    - For employees
- Procedures for assisting visitors and employees to evacuate, particularly those with disabilities or who do not speak English
- Designation of what, if any, employees will remain after the evacuation alarm to shut down critical operations or perform other duties before evacuating
- A means of accounting for employees after an evacuation
- Special equipment for employees

Conditions Under Which an Evacuation Would Be Necessary

A wide variety of emergencies both man-made and natural, may require a workplace to be evacuated. These emergencies include explosions, toxic material releases, radiological and biological accidents.

Employers will want their employees to respond differently to these different threats. Your plan should identify when and how employees are to respond to different types of emergencies.

The type of building you work in may be a factor in your decision. Most buildings are vulnerable to the effects of disasters such as tornadoes, earthquakes, floods or explosions. The extent of the damage depends on the type of emergency and the building's construction.

Shelter-in-Place

Chemical, biological, or radiological contaminants may be released into the environment in such quantity and/or proximity to a place of business that it is safer to remain indoors rather than to evacuate employees. Such releases may be either accidental or intentional.

"Shelter-in-place" means selecting an interior room or rooms within your facility, or ones with no or few windows, and taking refuge there. In many cases, local authorities will issue advice to shelter-in-place via TV or radio.

Implementation of the EAP (Chain of Command)

Drafting an EAP is not enough to ensure the safety of your employees. When an evacuation is necessary, you will need responsible, trained individuals who can supervise and coordinate activities to ensure a safe and successful evacuation.

An EAP will be useful only if its content is up-to-date and employees are sufficiently educated and trained before an actual evacuation. The following sections will help you successfully implement your plan:

Authority

It is common practice to select a responsible individual to lead and coordinate your emergency plan and evacuation. It is critical that employees know who the coordinator is and understand that this person has the authority to make decisions during emergencies. The coordinator should be responsible for assessing the situation to determine whether an emergency exists requiring activation of the emergency procedures, overseeing emergency procedures, notifying and coordinating with outside emergency services, and directing shutdown of utilities or plant operations if necessary.

In other instances, local emergency officials, such as the local fire department, may order you to evacuate your premises. If you have access to radio or television, listen to newscasts to keep informed and follow whatever official orders you receive.

When emergency officials, such as the local fire department, respond to an emergency at your workplace, they will assume responsibility for the safety of building occupants and have the authority to make decisions regarding evacuation and whatever other actions are necessary to protect life and property. The highest-ranking responder will assume the incident command role and will work with the onsite emergency coordinator, but will be responsible for directing all response activities.

2.5. Emergency action plans and evacuation procedure training programmes are implemented and managed correctly.

Before implementing the emergency action plan, the employer should designate and train enough people to assist in the safe and orderly emergency evacuation of employees. Training should be offered to employees when you develop your initial plan and to all newly hired employees. Employees should be retrained when their actions or

responsibilities under the plan change, or when the plan changes due to a change in the layout or design of the facility, new equipment, hazardous materials, or processes are introduced that affect evacuation routes, or new types of hazards are introduced that require special actions.

Educate your employees about the types of emergencies that may occur and train them in the proper course of action. The size of your workplace and workforce, processes used, materials handled, and the availability of onsite or outside resources will determine your training requirements. Be sure all employees understand the function and elements of your emergency action plan, including types of potential emergencies, reporting procedures, alarm systems, evacuation plans, and shutdown procedures. Discuss any special hazards you may have onsite such as flammable materials, toxic chemicals, radioactive sources, or water-reactive substances. An employer should inform employees of the fire hazards present in the workplace. Clearly communicate to your employees who will be in charge during an emergency to minimize confusion.

General training for your employees should also address the following:

- Individual roles and responsibilities
- Threats, hazards and protective actions
- Notification, warning and communications procedures
- Means for locating family members in an emergency
- Emergency response procedures
- Evacuation, shelter and accountability procedures
- Location and use of common emergency equipment
- Emergency shutdown procedures

And remember, if training is not reinforced it will be forgotten. Consider retraining employees annually.

You also may want to train your employees in first-aid procedures, including protection against blood borne pathogens; respiratory protection, including use of an escape-only respirator; and methods for preventing unauthorized access to the site.
Once you have reviewed your emergency action plan with your employees and everyone has had the proper training, it is a good idea to hold practice drills as often as necessary to keep employees prepared. Include outside resources such as fire and

police departments when possible. After each drill, gather management and employees to evaluate the effectiveness of the drill. Identify the strengths and weaknesses of your plan and work to improve it.

2.6. Implementation and managing of the emergency and evacuation procedures is performed in a manner that fosters teamwork and avoids conflict.

Once you have completed your emergency action plan, review it carefully with your employees and post it in an area where all employees will have access to it.

The employer should review with each employee upon initial assignment those parts of the EAP that the employee should know to protect him or herself in the event of an emergency. The written plans should be available to the employees and kept at the workplace. For employers with 10 or fewer employees, the plans may be communicated orally, and the employer does not need to maintain written plans.

The plans also should be reviewed with other companies or employee groups in your building to ensure that your efforts will be coordinated with theirs, enhancing the effectiveness of your plan. In addition, if you rely on assistance from local emergency responders such as the fire department, local HAZMAT teams or other outside responders, you may find it useful to review and coordinate your emergency plans with these organizations. This ensures that you are aware of the capabilities of these outside responders and that they know what you expect of them.

It is a good idea to hold practice evacuation drills. Evacuation drills permit employees to become familiar with the emergency procedures, their egress routes and assembly locations, so that if an actual emergency should occur, they will respond properly. Drills should be conducted as often as necessary to keep employees prepared. Include outside resources, such as fire and police departments, when possible. After each drill, gather management and employees to evaluate the effectiveness of the drill. Identify the strengths and weaknesses of your plan and work to improve it.

Operations and personnel change frequently, and an outdated plan will be of little use in an emergency. You should review the contents of your plan regularly and update it whenever an employee's emergency actions or responsibilities change; or when there is

a change in the layout or design of the facility, new equipment, hazardous materials; or processes are introduced that affect evacuation routes; or new types of hazards are introduced that require special actions. The most common outdated item in plans is the facility and agency contact information. Consider placing this important information on a separate page in the front of the plan so that it can be readily updated.

FORMATIVE ASSESSMENT – SO 2

Complete this Activity in your Workbook supplied by the Facilitator.

SELF ASSESSMENT		
Concept (SO 2)	**I understand this assessment criteria**	**Questions that I still would like to ask**
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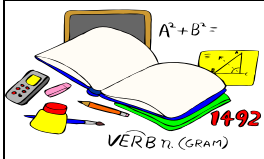


My Notes …

3. Respond to emergencies according to action plan procedures.

SO 3: Respond to emergencies according to action plan procedures.
Learning Outcomes: After completing this module, the learner would be able to: 1. Demonstrate the selection and use of tools and equipment pertaining to the type of emergencies. 2. Correctly demonstrate the response to emergencies pertaining to the emergency action plan. 3. Ensure the evacuation of workers is done in a manner that ensures their health and safety. 4. Ensure the response to emergencies in the workplace is performed in a manner that fosters teamwork and avoids conflict. 5. Explain the consequences of not responding to emergency action plan procedures.

3.1. The selection and use of tools and equipment pertaining to the type of emergencies is demonstrated.

Your employees may need personal protective equipment to evacuate during an emergency. Personal protective equipment must be based on the potential hazards in the workplace. Assess your workplace to determine potential hazards and the appropriate controls and protective equipment for those hazards. Personal protective equipment may include items such as the following:

- Safety glasses, goggles, or face shields for eye protection;
- Hard hats and safety shoes for head and foot protection;
- Proper respirators;
- Chemical suits, gloves, hoods, and boots for body protection from chemicals;
- Special body protection for abnormal environmental conditions such as extreme temperatures; and
- Any other special equipment or warning devices necessary for hazards unique to your worksite.

Consult with health and safety professionals before making any purchases. Respirators selected should be appropriate to the hazards in your workplace, meet OSHA standards criteria. Respiratory protection may be necessary if your employees must pass through

toxic atmospheres of dust, mists, gases, or vapours, or through oxygen-deficient areas while evacuating.

3.2. The response to emergencies pertaining to the emergency action plan is correctly demonstrated.

The actions taken in the initial minutes of an emergency are critical. A prompt warning to employees to evacuate, shelter or lockdown can save lives. A call for help to public emergency services that provides full and accurate information will help the dispatcher send the right responders and equipment. An employee trained to administer first aid or perform CPR can be lifesaving. Action by employees with knowledge of building and process systems can help control a leak and minimize damage to the facility and the environment.

The first step when developing an emergency response plan is to conduct a risk assessment to identify potential emergency scenarios. An understanding of what can happen will enable you to determine resource requirements and to develop plans and procedures to prepare your business. The emergency plan should be consistent with your performance objectives.

When an emergency occurs, the first priority is always life safety. The second priority is the stabilization of the incident. There are many actions that can be taken to stabilize an incident and minimize potential damage. First aid and CPR by trained employees can save lives. Use of fire extinguishers by trained employees can extinguish a small fire. Containment of a small chemical spill and supervision of building utilities and systems can minimize damage to a building and help prevent environmental damage.

Some severe weather events can be forecast hours before they arrive, providing valuable time to protect a facility. A plan should be established and resources should be on hand, or quickly, available to prepare a facility. The plan should also include a process for damage assessment, salvage, protection of undamaged property and clean-up following an incident. These actions to minimize further damage and business disruption are examples of property conservation.

Internal response. What are people supposed to do? This is a very simple question that requires a complex answer. As part of each emergency scenario, you need to develop responsibilities to ensure certain tasks get done. These tasks can include:

- calling for outside assistance
- meeting rescue personnel at the front gate

- managing traffic in the yard to allow emergency workers access
- evacuating to the meeting spot
- taking head counts of other workers
- shutting down critical equipment
- talking to the media.

External response. The best way to get an efficient and effective response from outside rescue workers is to have a great working relationship with them prior to your needing them. Meetings, familiarization tours, and on-site drills will allow rescue workers to understand your operation without the chaos of a real emergency situation. A key point to remember is that when they show up on site during an emergency, they are now in charge, and you are not.

3.3. The evacuation of workers is done in a manner that ensures their health and safety.

Many employers designate individuals as evacuation wardens to help move employees from danger to safe areas during an emergency. Generally, one warden for every 20 employees should be adequate, and the appropriate number of wardens should be available at all times during working hours.

Wardens may be responsible for checking offices, bathrooms and other spaces before being the last person to exit an area. They might also be tasked with ensuring that fire doors are closed when exiting. All employees designated to assist in emergency evacuation procedures should be trained in the complete workplace layout and various alternative escape routes if the primary evacuation route becomes blocked. Employees designated to assist in emergencies should be made aware of employees with special needs (who may require extra assistance during an evacuation), how to use the buddy system and any hazardous areas to avoid during an emergency evacuation.

Visitors also should be accounted for following an evacuation and may need additional assistance when exiting. Some employers have all visitors and contractors sign in when entering the workplace and use this list when accounting for all persons in the assembly area. The hosts and/or area wardens, if established, are often tasked with helping these individuals safely evacuate.

You also may find it beneficial to coordinate the action plan with other employers when several employers share the worksite.

Employees Who May Remain to Shut Down Operations Before Evacuating

Certain equipment and processes should be shut down in stages or over time. In other instances it is not possible or practical for equipment or certain process to be shut down under certain emergency situations. This condition, which is not unusual for certain large manufacturers operating complex processes, is not typical of small enterprises that normally can turn off equipment or utilities if necessary and evacuate. However some small enterprises may require designated employees remain behind briefly to operate fire extinguishers or shut down gas and/or electrical systems and other special equipment that could be damaged if left operating or create additional hazards to emergency responders (such as releasing hazardous materials).

Each employer should review their operation and determine whether total and immediate evacuation is possible for various types of emergencies. The preferred approach, and the one most often taken by small enterprises, is immediate evacuation of all their employees when the evacuation alarm is sounded.

If any employees will stay behind, the plan should describe in detail the procedures to be followed by these employees. All employees remaining behind should be capable of recognizing when to abandon the operation or task and evacuate themselves before their egress path is blocked. In small establishments it is common to include in your plan locations where utilities (such as electrical and gas) can be shut down for all or part of the facility either by your own employees or by emergency response personnel.

Accounting for Employees after an Evacuation

To ensure the fastest, most accurate accountability of your employees, you may want to consider including these steps in your emergency action plan:

Designate assembly areas where employees should gather after evacuating.

Take a head count after the evacuation. Identify the names and last known locations of anyone not accounted for and pass them to the official in charge.

Establish a method for accounting for non-employees such as suppliers and customers.

Establish procedures for further evacuation in case the incident expands. This may consist of sending employees home by normal means or providing them with transportation to an off-site location.

Special Equipment for Employees

Your employees may need personal protective equipment to evacuate during an emergency. Personal protective equipment must be based on the potential hazards in the workplace. Assess your workplace to determine potential hazards and the appropriate controls and protective equipment for those hazards.

Personal protective equipment may include items such as the following:

- Safety glasses, goggles or face shields for eye protection
- Hard hats and safety shoes for head and foot protection
- Proper respirators
- Chemical suits, gloves, hoods and boots for body protection from chemicals
- Special body protection for abnormal environmental conditions, such as extreme temperatures
- Any other special equipment or warning devices necessary for hazards associated with your worksite

3.4. The response to emergencies in the workplace is performed in a manner that fosters teamwork and avoids conflict.

The best emergency action plans include employees in the planning process, specify what employees should do during an emergency, and ensure that employees receive proper training for emergencies. When you include your employees in your planning, encourage them to offer suggestions about potential hazards, worst-case scenarios, and proper emergency responses. After you develop the plan, review it with your employees to make sure everyone knows what to do before, during and after an emergency. Keep a copy of your emergency action plan in a convenient location where employees can get to it, or provide all employees a copy. If you have 10 or fewer employees, you may communicate your plan orally.

3.5. The consequences of not responding to emergency action plan procedures are explained

Failure to respond to an emergency action plan procedures results in employees succumbing to injuries which in turn has several consequences as follows:

Financial Costs

Accidents present several costs to the employer, including:

- Salary costs

- Productivity losses
- Retraining
- Compensation
- Repairs
- Medical and travel expenses
- Additional supervision

In one study, salary costs comprised 45% of the total average costs. Productivity and retraining costs each comprised 21%.

Physical Effects on the Employees

The majority of the accident cost pertained to the loss, either temporary or permanent, of a trained employee. The physical injuries that contributed to this loss include the following:

- Retired due to permanent injury (arm, fingers)
- Loss of ability to handle materials
- Persistent headaches
- Persistent pain

These injuries result in a wide range of either part or full off time, ranging from a month to several years. The equivalent salary for these losses adds a significant amount to operational overhead.

Psychological Effects

Workplace accidents can have psychological effects as well, including anxiety and depression, further reducing productivity. In one study, anxiety affected more than half the injured employees, while depression afflicted more than a quarter. The effects also impinged on after work activities with families and hobbies as well, further hurting the employee's perceptions of the workplace.

Employer-Employee Relationships

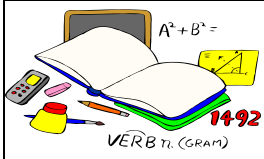
Although recovered employees maintained their relationships with colleagues and co-workers, studies show that the employee-employer relationship can become strained. The amount of interaction is less, and the tone of the relationship becomes more polarized. In many cases, if the employee was treated the same after the accident as before, he or she began to develop resentment. Employers could counter this effect by instigating increased contact post-accident, in order to mitigate negative feelings. This

was important because studies uncovered that most employees project their anger about the accident onto their employer.

FORMATIVE ASSESSMENT – SO 3

Complete this Activity in your Workbook supplied by the Facilitator.

SELF ASSESSMENT		
Concept (SO 3)	**I understand this assessment criteria**	**Questions that I still would like to ask**



My Notes …

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

REGISTERED UNIT STANDARD:

Respond to, implement and manage emergencies according to an emergency action plan in a workplace

SAQA US ID	UNIT STANDARD TITLE			
120329	Respond to, implement and manage emergencies according to an emergency action plan in a workplace			
ORIGINATOR				
SGB Occupational Health and Safety				
PRIMARY OR DELEGATED QUALITY ASSURANCE FUNCTIONARY				
-				
FIELD			**SUBFIELD**	
Field 09 - Health Sciences and Social Services			Preventive Health	
ABET BAND	**UNIT STANDARD TYPE**	**PRE-2009 NQF LEVEL**	**NQF LEVEL**	**CREDITS**
Undefined	Regular-Fundamental	Level 3	NQF Level 03	2
REGISTRATION STATUS		**REGISTRATION START DATE**	**REGISTRATION END DATE**	**SAQA DECISION NUMBER**
Reregistered		2018-07-01	2023-06-30	SAQA 06120/18
LAST DATE FOR ENROLMENT		**LAST DATE FOR ACHIEVEMENT**		
2024-06-30		2027-06-30		

In all of the tables in this document, both the pre-2009 NQF Level and the NQF Level is shown. In the text (purpose statements, qualification rules, etc), any references to NQF Levels are to the pre-2009 levels unless specifically stated otherwise.

This unit standard does not replace any other unit standard and is not replaced by any other unit standard.

PURPOSE OF THE UNIT STANDARD

Persons credited with this unit standard will be able to describe the specified requirements pertaining to responding to emergencies according to action plan procedures in a workplace, Implement and manage emergency action plan procedures.

LEARNING ASSUMED TO BE IN PLACE AND RECOGNITION OF PRIOR LEARNING

- Communications at NQF Level 2.
- Mathematical Literacy at NQF Level 2.

UNIT STANDARD RANGE

All the specific outcomes and assessment criteria are assessed in accordance with specified requirements and- where applicable- consequences to health and safety.

Specified requirements include legal and site-specific requirements and are contained in one or more of the following documents:

Legal:

- Mine Health and Safety Act.
- Occupational Health and Safety Act.
- Chief Inspector of Mines' Directives.

Site-specific:

- Health and safety agreements.
- Codes of practice.
- Standards.
- Standards task procedures.
- Risk Assessments procedures.
- Occupational Health and Safety Risk Management Programme.
- Managerial Instructions.
- Mine Standard Procedures.
- List of Recorded OH&S Risks.
- Working Guides/Permits.
- MSDS.
- Equipment and Materials Specifications.

Specific Outcomes and Assessment Criteria:

SPECIFIC OUTCOME 1

Describe the specified requirements pertaining to responding to emergencies according to an emergency action plan in a workplace.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

The types and extent of emergencies that can occur in the workplace are explained.

ASSESSMENT CRITERION 2

Emergency action plans and procedures in a workplace are explained.

ASSESSMENT CRITERION 3

Definitions and legal limits regarding irrespirable atmospheres are given.

ASSESSMENT CRITERION 4

Responses to emergencies according to action plan procedures in a workplace are explained.

ASSESSMENT CRITERION 5

Training requirements for responding to emergencies according to an emergency action plan in a workplace are explained.

ASSESSMENT CRITERION RANGE

Must include emergency procedures, evacuation drills, tools and equipment.

SPECIFIC OUTCOME 2

Implement and manage emergency action plan procedures.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

The classification of risk areas is given.

ASSESSMENT CRITERION 2

The siting, sizing and equipping of emergency evacuation assembly points is correctly demonstrated.

ASSESSMENT CRITERION 3

The mapping out of evacuation routes is demonstrated.

ASSESSMENT CRITERION 4

The approved emergency evacuation procedure is implemented and managed accordingly.

ASSESSMENT CRITERION RANGE

Evacuation procedures must include initiation, escape, assembly and workplace re-entry procedures.

ASSESSMENT CRITERION 5

Emergency action plans and evacuation procedure training programmes are implemented and managed correctly.

ASSESSMENT CRITERION 6

Implementation and managing of the emergency and evacuation procedures is performed in a manner that fosters teamwork and avoids conflict.

SPECIFIC OUTCOME 3

Respond to emergencies according to action plan procedures.

ASSESSMENT CRITERIA

ASSESSMENT CRITERION 1

The selection and use of tools and equipment pertaining to the type of emergencies is demonstrated.

ASSESSMENT CRITERION 2

The response to emergencies pertaining to the emergency action plan is correctly demonstrated.

ASSESSMENT CRITERION 3

The evacuation of workers is done in a manner that ensures their health and safety.

ASSESSMENT CRITERION 4

The response to emergencies in the workplace is performed in a manner that fosters teamwork and avoids conflict.

ASSESSMENT CRITERION 5

The consequences of not responding to emergency action plan procedures are explained.

UNIT STANDARD ACCREDITATION AND MODERATION OPTIONS

- Anyone assessing a learner against this unit standard must be registered as an assessor with the relevant ETQA or ETQA that has a Memorandum of Understanding in place with the relevant ETQA.
- Any institution offering learning that will enable achievement of this unit standard must be accredited as a provider by the relevant ETQA or ETQA that has a Memorandum of Understanding in place with the relevant ETQA.
- Moderation of assessment will be overseen by the relevant ETQA according to the moderation guidelines and the agreed ETQA procedures.

UNIT STANDARD ESSENTIAL EMBEDDED KNOWLEDGE

N/A

UNIT STANDARD DEVELOPMENTAL OUTCOME

N/A

UNIT STANDARD LINKAGES

N/A

Critical Cross-field Outcomes (CCFO):

UNIT STANDARD CCFO IDENTIFYING

Solve problems

- By responding and improving on emergency procedures, the individual will be required to embark on remedial action, which requires problem solving.

UNIT STANDARD CCFO WORKING

Work effectively with others as a member of a team/group/organization/community

- The individual will have to take reasonable care of oneself and other's safety in the workplace, which shows

concern for entire team and not only oneself.

UNIT STANDARD CCFO ORGANISING

Organise and manage oneself and one's activities responsibly and effectively
- As part of the team, the individual will take into account the activities around him/her and ensure that his/her actions are complementary.

UNIT STANDARD CCFO COLLECTING

Collect, organize and critically evaluate information
- When responding to emergencies, the individual will have to collect and organise information in such a way that he/she will be able to evaluate it and make decisions.

UNIT STANDARD CCFO COMMUNICATING

Communicate effectively using visual, mathematics and language skills in the modes of oral and written presentations
- Remedial action resulting from the emergency response, must be communicated to all relevant persons.

UNIT STANDARD CCFO SCIENCE

Use science and technology effectively and critically (showing responsibility toward the environment and health of others)
- Science and technology are used at the appropriate level, e.g. in interpreting data.

UNIT STANDARD CCFO DEMONSTRATING

Demonstrate an understanding of the world as a set of related systems
- He/she must understand the impact of his/her or others' actions in the overall objectives of the workplace.

UNIT STANDARD ASSESSOR CRITERIA

N/A

REREGISTRATION HISTORY

As per the SAQA Board decision/s at that time, this unit standard was Reregistered in 2012; 2015.

UNIT STANDARD NOTES

N/A

QUALIFICATIONS UTILISING THIS UNIT STANDARD:

	ID	QUALIFICATION TITLE	PRE-2009 NQF LEVEL	NQF LEVEL	STATUS	END DATE	PRIMARY OR DELEGATED QA FUNCTIONARY
Core	77063	National Certificate: Construction Health and Safety	Level 3	NQF Level 03	Reregistered	2023-06-30	CETA
Core	62769	National Certificate: Mineral Processing	Level 3	NQF Level 03	Reregistered	2023-06-30	MQA
Core	79806	National Certificate:	Level 3	NQF Level	Reregistered	2023-	As per Learning

		Occupational Hygiene and Safety		03		06-30	Programmes recorded against this Qual
Core	60369	National Certificate: Strata Control Operations	Level 3	NQF Level 03	Reregistered	2023-06-30	MQA
Elective	64190	National Certificate: Metals Production	Level 3	NQF Level 03	Reregistered	2023-06-30	As per Learning Programmes recorded against this Qual
Elective	78803	National Certificate: Primary Response in Emergencies	Level 3	NQF Level 03	Passed the End Date - Status was "Registered"	2013-06-02	
Elective	60249	National Certificate: Primary Response in Emergencies	Level 3	NQF Level 03	Passed the End Date - Status was "Registered"	2010-06-02	HW SETA
Elective	62796	Further Education and Training Certificate: Strata Control Operations	Level 4	NQF Level 04	Reregistered	2023-06-30	MQA

PROVIDERS CURRENTLY ACCREDITED TO OFFER THIS UNIT STANDARD:

This information shows the current accreditations (i.e. those not past their accreditation end dates), and is the most complete record available to SAQA as of today. Some Primary or Delegated Quality Assurance Functionaries have a lag in their recording systems for provider accreditation, in turn leading to a lag in notifying SAQA of all the providers that they have accredited to offer qualifications and unit standards, as well as any extensions to accreditation end dates. The relevant Primary or Delegated Quality Assurance Functionary should be notified if a record appears to be missing from here.

1. Academy for Construction Skills (Pty) Ltd (ACS)
2. Africa Training Centre
3. Amokoro Training (PTY) Ltd
4. Aveng Grinaker -LTA Civil Engineering
5. AVUXENI COMPUTER ACADEMY KZN
6. BOKONI PLATINUM MINES (PTY) LTD
7. Buna Construction And Projects
8. Certified Training Solutions (Pty) Ltd
9. CLEAN HEAT ENERGY SAVING SOLUTIONS (PTY) LTD
10. Dego Consultants
11. Ditlotlo Trading Enterprise
12. Dreyer and Dreyer Risk Solutions
13. Eastcape Training Centre
14. Elite Operator and Skills Training
15. Emcare
16. ESS HOLDINGS (PTY) Ltd
17. EXXARO COAL (PTY) LTD
18. GEOSTRAT TRAINING
19. HARMONY GOLD MINING CO LTD

20. imithetho labour law
21. IMPALA PLATINUM SERVICES LTD
22. Kephama Trading Enterprise
23. KUMBA IRON ORE (SISHEN)
24. Lamus Training Academy Pty Ltd
25. Lerumo La Setshaba
26. Magnacorp Project Managers
27. Masima Training Sa Cc
28. Matimba Rigging & Training (SECUNDA) (TP)
29. Mavco Engineering
30. METSKILL PTY LTD
31. MODIKWA MINING PERSONNEL SERVICES PTY L TD
32. MOYATAU COMMUNITY DEVELOPMENT
33. Nokaneng Environmental Management Consulting
34. NOLOSHA
35. Nomagwanishe Investments cc
36. Northern Cape Rural TVET College
37. P.MAB MANAGERS AND PROJECTS (PTY) LTD
38. PRIDE OF SUCCESS (PTY) LTD
39. SAFETY AND TRAINING SOLUTIONS (PTY) LTD
40. SAFETY TRAINING PRACTITIONERS PTY LTD
41. SIBANYE GOLD ACADEMY PROPRIETARY LIMITED
42. STEP AHEAD BUSINESS TRAINING
43. THARISA MINERALS (PTY) LTD
44. The Skills Matrix cc
45. Tius Consultants
46. Topfix Scaffolding (Pty) Ltd
47. Tovani Traiding 299
48. Training Force (Pty) Ltd
49. VENETIA MINE
50. XTRACT TRAINING SERVICES (SA)(PTY)LTD
51. Zibuyile Consulting and Projects (Pty) Ltd