

## Animal health care service

### Level - I

# Learning Guide -6

Unit of Competence: - Follow Occupational Health and Support Procedure Module Title: - Following Occupational Health and Support Procedure LG Code: AGRHC1 M2 LO1-LG-6 TTLM Code: AGR HC1 TTLM2 09 19v1

## LO 1: Recognize hazards



**Instruction Sheet** 

Learning Guide #

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

- Identifying *Hazards* commonly found in the workplace.
- Checking Work area routinely before and during work
- Describing causes of identifying hazards

This guide will also assist you to attain the learning outcome stated in the cover page.

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

- Identify *Hazards* commonly found in the workplace.
- Check work area routinely before and during work
- Describe the causes of Identified hazards according to organizational procedures according to organizational procedures

#### Learning Instructions:

Learning Instructions:

- 1. Read the specific objectives of this Learning Guide.
- 2. Follow the instructions described below 3 to 6.
- 3. Read the information written in the information "Sheet 1, Sheet 2, Sheet 3 and Sheet 4".
- 4. Accomplish the "Self-check 1, Self-check t 2, Self-check 3 and Self-check 4" in page -6, 9, 12 and 14 respectively.
- 5. If you earned a satisfactory evaluation from the "Self-check" proceed to "Operation Sheet 1, Operation Sheet 2 and Operation Sheet 3 " in page -15.
- 6. Do the "LAP test" in page 16 (if you are ready).



nformation Sheet-1	Identifying <b>Hazards</b> commonly found in the workplace.
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#### 1.1 Concept of hazards

**The term hazard**: A hazard is anything that has the potential to harm the health or Safety of a person or an animal.

The hazard identification process is designed to identify all the possible situations where people may possibly be exposed to injury, illness and disease arising from all sources including the above.

Prior to the introduction of any plant, substances, processes or work practices in the workplace, it is essential for the hazard identification process to be carried out to identify whether there is any potential for injury, illness or disease associated with such introduction. This will assist you to take the necessary actions for what may otherwise be extremely costly further down the track if no action is taken at this early stage.

Carrying out hazard identification for all existing plant, substances, processes and work practices in your workplace may require some effort. If you have a large workplace, it is a good idea to split it into several discrete areas for the hazard identification process, and to tackle one area at a time. Priority should be given to areas with hazardous plant, substances, processes or environment.

In order to minimize the time involved, it is better to perform hazard identification on all sources of hazards in a particular area of the workplace instead of doing each hazard source (e.g. plant, hazardous substances etc) at a time.

The relevant health and safety representatives need to be consulted during the hazard identification process. Employees working in the area have day to day experience of any hazards and should be involved in the hazard identification process. Advice should also be sought from people who are associated with the activities and processes in the area because they may provide valuable input.



Hazards in the workplace can change from day to day. In order to effectively manage workplace health and safety you need to introduce proper systems and procedures to ensure hazard identification is carried out on a regular basis. The OHS legislation requires you to repeat the hazard identification process:

#### 1.2 Types of hazards

- **1. Physical Hazards:** this can be electrical equipment's, open flames, lab. Instruments and glassware can all be hazardous if improperly used.
  - <u>Electricity</u>: is one of the most important physical hazards, when the electrical equipment's are use, the technicians should follow the use instruction. In the lab work should avoid electrical overloaded. They are a potential fire hazard and can also cause equipment damage.
  - <u>Fire:</u>is other of the most important physical hazards, but is not common. It can occur when open flames, such as Bunsen burners, are in use. It can damage clothing and long hair if are near to the fire. When necessary use is any flammable chemicals is better keep in a flameproof cabinet. In case of fire, in the lab should be fire extinguisher and any escape route in case of the exit is blocked.
  - <u>Laboratory equipment:</u> during working with autoclave, the technician should work carefully trying to avoid any explosions and burns; because it use pressurized steam to sterilize surgical instruments, glassware, sterile solutions, materials to be used in microbiology, for decontaminate materials such as blood specimens, bacterial cultures or filled biohazard containers before disposal and other materials present special hazards, etc.
- 2. Chemical hazards can be flammable, toxic, caustic, corrosive, carcinogen or mutagenic.

All chemicals must be labeled with"hazard information" on the containers

#### 3. Biological hazards:

It can be contaminated with bacteria, virus, fungus, or parasites. It can produce also by bite from the laboratory animals. In microbiology lab, making any bacteriological culture is recommendable in the microbiological safety cabinet. Avoid contact from biological



culture. After any lab work, the technician and all surfaces must be disinfected with known disinfectants.

#### 4. Allergic hazards:

Allergic hazards associated with breathing or contacting animal dander or urine allergens (among others). The safest policy is to reduce exposureby wearing protective clothing (such as facemasks, gloves, and a lab coat) when handling animals.

Self-Check -1	Written Test

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

- **1.** Define hazards? (2pts)
- **2.** List the type of hazards and explain each of them. (6 points)

#### *Note:* Satisfactory rating - 2 and 6 points Unsatisfactory - below 2 and 6 points

You can ask you teacher for the copy of the correct answers.

#### **Answer Sheet**

Score =	
Rating:	

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Short Answer Questions



#### Information Sheet- 2 Checking Work area routinely before and during work

2.1 Work area: is the place where persons do any things. eg laboratory

#### 2.1 Animal laboratory

Laboratory is a place where specimens for biological examination tested and analyzed. Examination may be macroscopic or microscopic and it is performed manually or using specialized instruments by aid of chemicals and reagents. Due to this, lab technicians must have the skill to perform varies duties, including handling of different instruments, chemicals and reagents with their use during lab work.

Every lab technician must aware of the potential danger of chemicals, electrical, biological hazard to safe he and his partner during work. Keeping the living things in the vicinity and pollution of environment from any lab hazard is on the hand of lab technician.

So, to avoid /minimize/ risk there is many safety regulations. Most problems may happen due to carelessness, neglect and shortage of knowledge. Therefore, to avoid accidents, lab technicians and students must follow all safety procedures in the lab.

#### A. Preparing for laboratory work

Before starting to work in a laboratory, familiarize yourself with the following:

- The hazards of the materials in the work place as well as appropriate safe handling, storage and emergency protocols. Read labels and material safety data sheets (MSDSs) before moving, handling or opening chemicals. Never use a product from an unlabeled container, and report missing labels to your supervisor.
- The agents, processes and equipment in the laboratory. If you are unsure of any aspect of a procedure, check with your supervisor before proceeding.
- the location and operation of safety and emergency equipment such as fire extinguishers, eye wash and shower, first aid and spill response kits, fire alarm pull stations, telephone and emergency exits
- Emergency spill response procedures for the materials you will handle



- Emergency reporting procedures and telephone numbers
- designated and alternate escape routes

#### B. During laboratory work

- Restrict laboratory access to authorized persons only. Children are not permitted in labs.
- Smoking; eating; drinking; storing food, beverages or tobacco; applying cosmetics or lip balm and handling contact lenses are not permitted in laboratories.
- Wear lab coats (knee length) and safety glasses in laboratories employing chemicals, biohazards or radioisotopes. Open shoes, such as sandals, should never be worn in the lab.
- Tie back or otherwise restrain long hair when working with chemicals, biohazards, radioisotopes, or moving machinery.
- Keep work places clean and free of unwanted chemicals, biological specimens, radios, and idle equipment. Avoid leaving reagent bottles, empty or full, on the floor.
- Work only with materials once you know their flammability, reactivity, toxicity, safe handling and storage and emergency procedures.
- Consult material safety data sheets (MSDS) before working with hazardous chemicals or infectious material. Replace MSDS that are more than 3 years old.
- Prepare and maintain a chemical inventory for the lab.
- Never pipette by mouth; use mechanical transfer devices.
- Walk; do not run, in the lab.
- Keep exits and passageways clear at all times.
- Ensure that access to emergency equipment (eyewashes, safety showers and fire extinguishers) is not blocked.
- Report accidents and dangerous incidents ("near-misses") promptly to your supervisor



- Wash your hands thoroughly before leaving the laboratory.
- Conduct procedures involving the release of volatile toxic or flammable materials in a chemical fume hood.
- Handle all blood and body fluids as if potentially infectious

#### C. Cleaning up before leaving

Perform a safety check at the end of each experiment and before leaving the lab. Make sure to:

- Turn off gas, water, electricity, vacuum and compression lines and heating apparatus
- Return unused materials, equipment and apparatus to their proper storage locations
- Label, package and dispose of all waste material properly
- Remove defective or damaged equipment immediately, and arrange to have it repaired or replaced
- Decontaminate any equipment or work areas that may have been in contact with hazardous materials.
- Leave behind protective clothing (lab coats, gloves, etc.) when leaving the laboratory
- Close and lock the door to the laboratory if you are the last one to leave



Self-Check -2	Written Test

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

- 1. What is the importance of checking hazards in the work (2pts?)
- 2. List the certain .hazards can occur in the laboratory (4 points)

#### Note: Satisfactory rating - 2 and 4 points Unsatisfactory - below 2and 4 points

You can ask you teacher for the copy of the correct answers.

**Answer Sheet** 

Score =	
Rating:	

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Short Answer Questions



	Describe the causes of Identified hazards according to
Information Sheet- 3	organizational procedures

#### 3.1 Causes of Workplace Hazards

In your workplace, you no doubt want to keep your employees safe. However, even with proper security measures, your workers are still at risk of injury or illness due to the some common hazards. By identifying both common and uncommon hazards in your workplace and educating your employees on avoiding potential injuries or illnesses during work, you can further protect their safety.

#### Causes

#### • Fire

The first workplace hazard is the risk of a fire breaking out. There are many different reasons a fire might break out in your building, including chemical spills, machinery or equipment malfunctioning, gaseous containers, electrical failures, not discarding flammable materials properly and many other reasons. To protect your employees, have fire extinguishers in the building and educate your employees on how to use them properly. You should also have designated fire exits.

#### • Slips and fall

Next is the risk of a slip and fall which is a risk regardless of where you work and what kind of business you have. A slip could be as simple as a spill in the break room that hadn't been cleaned up yet or falling over a computer cord in the aisle. Tile and linoleum flooring is also a risk, which is common in break rooms and restrooms. If it was recently waxed, that increases the risk even further.



#### **Chemicals**

Another workplace hazard you should protect is chemicals. Be sure your employees understand what chemicals they might find in the workplace and how to dispose of them properly. Chemical handling mistakes are a common reason for chemical-related

illnesses. Chemicals could be anything from liquids and gases to the fumes, dust, solids or vapors. Ingesting, absorbing in the skin and inhaling the fumes may all be hazards.

#### • Electrical Hazards

This is a workplace hazard that most employees don't notice until it causes an injury or fire in the building. Electrical hazards could be from liquids near electrical outlets, malfunctioning power strips, extension cords coming into contact with water or fraying cords.

#### • Back Injury

Lifting heavy objects or doing lifting and bending over repetitively throughout the day can also cause injury to your employees. Even when using the proper lifting form, such as keeping the back straight and not bending over to pick up the items, a back injury could occur.

#### **Hazardous Materials**

There are also hazardous materials aside from chemicals that could cause illness to your employees. This includes toxic waste and hazardous materials that may cause skin infection, burn, respiratory disease, cause an explosion and fire or even blindness. As with chemicals, be sure employees wear protective gear and practice caution when around any type of hazardous material.

#### • Biological hazards

It can be contaminated with bacteria, virus, fungus, or parasites. It can produce also by bite from the laboratory animals. In microbiology lab, making any bacteriological culture is recommendable in the microbiological safety cabinet. Avoid contact from biological



culture. After any lab work, the technician and all surfaces must be disinfected with known disinfectants.

Self-Check -2	Written Test

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

- 1. List causes of hazards encountered in the work place (3)
- 2. What is the benefit of hazard identification? (5)

Note: Satisfactory rating - 3 and 5 pointsUnsatisfactory - below 3 and 5 pointsYou can ask you teacher for the copy of the correct answers.

**Answer Sheet** 

Score =	
Rating:	

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Short Answer Questions



Operation Sheet 1 Me	thod of Identifying hazards
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#### The method of identifying hazards about resource providers are:

- 1. List out orderly all resource providers to identifying hazards
- 2. Define PPE necessary to do the Identification of work place hazards.
- 3. Apply method of identification of hazards such as hazard
  - assessment
  - Identification
  - Implementation and
  - Control.
- **4.** Send the completed documents to supervisor/ concerned body