



# **Meat and Meat Products Processing- Level II**

**Based on May 2019, Version 2 Occupational standards**

**Module Title: - Identifying and implementing Basic  
meat processing plant activities**

**LG Code: IND MPP2 M7 LO (1-4) LG (25-28)**

**TTLM Code: IND MPP2 TTLM 0920 v1**

**October, 2020**

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## LG# 25

### LO1- Work within the meat industry sector

#### Instruction sheet

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

- Examining composition and structure of meat industry
- Examining Major species and markets areas
- Tracing of path of meat paddock(farm) to table or fork plate
- Tracing flow diagrams and process steps
- Identifying role of employee

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

- Examine composition and structure of meat industry
- Examine Major species and markets areas
- Trace of path of meat paddock(farm) to table or fork plate
- Trace flow diagrams and process steps
- Identify role of employee

#### Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below.
3. Read the information written in the “Information Sheets”. Try to understand what are being discussed. Ask your trainer for assistance if you have hard time understanding them.
4. Accomplish the “Self-checks” which are placed following all information sheets.
5. Ask from your trainer the key to correction (key answers) or you can request your trainer to correct your work. (You are to get the key answer only after you finished answering the Self-checks).

## **Introduction**

Designing and constructing abattoirs involves a team of specialist architects, engineers and construction personnel, amongst others. The main function of the Official Veterinary Surgeon is normally regarded as being to audit the abattoir, post-construction. At this stage, problems which were not anticipated when abattoir structure was built may be highlighted.

However, preferably, Official Veterinary Surgeons should provide professional advice encompassing the principles of hygienic meat production and the best methods to achieve this, even during the planning stages. Aspects to be addressed during planning include location, provision of services, layout, materials and equipment.

### **Location**

Location is the first consideration during planning for abattoir construction. Land section size required for abattoirs, depending on their capacity, is approximately: 1–2 acres for small abattoirs (slaughtering >30,000 animal units per year), 2–4 acres for medium abattoirs (>50,000/year) and 4–6 acres for large abattoirs (>100,000/year). In the UK, one animal unit equals one adult bovine, two pigs, three calves or five sheep/goats.

The abattoir must not, itself, contaminate the environment. Odour emissions must be anticipated using a worst-case scenario with the prevailing winds. Odour emissions will probably cause more nuisance during summer, as the ambient temperature is higher and local inhabitants live and work more frequently outdoors or have open windows.

Urban populations may be less tolerant to animal-related odours than are agricultural populations. Traffic density and flow in the area must be studied; sufficient road capacity must be available. Noise will need careful consideration, as early-morning noise from stock and/or trucks will occur.

The abattoir itself must be protected from contamination from the surrounding environment; industrial zones may contain spatial or temporal pockets with high air pollution levels, where safe meat production could be compromised. Pest control is a requirement not just in abattoirs, but in the surrounds as well.

Abattoirs should not be sited in flood-prone areas, because of risks from contamination of the abattoir itself and/or its water supply, additionally because effluent discharge is likely to be simple- and more cost-effective in non-flood zones.

### **Water supply**

The availability of potable water required for abattoir operation must be ensured, as large volumes are necessary: approximately 10,000 litres per tonne of final carcass, although this depends on the technology used. Effluent-based liquid wastes are to be removed via drainage networks into the sewerage system, or into in-plant treatment areas (lagoons, sedimentation ponds, etc.), so suitable facilities must be provided. Solid wastes include inedible tissues, gut contents, lairage waste and bedding, which must be stored in suitable on-site areas before disposal.

### **Animal transport**

Animals are transported to the abattoir by various vehicles and then unloaded; for details on animal transport. At the site, a vehicle cleaning/disinfection station must be provided for sanitation of vehicles before they leave the premises.

### **Lairage**

Within the buildings, the lairage capacity must be sufficient to hold at least one day's supply of livestock, in case the production line has to be stopped. Once stock is on the premises, it cannot be normally returned to the farm. The lairage should allow recovery of animals from transport stress, normal animal behaviour and interaction, and also effective ante-mortem inspection by the Official Veterinary Surgeon.

On average, bovines require 2.3 to 2.8 m<sup>2</sup> pen space per animal; bacon pigs (light) require 0.6 m<sup>2</sup>; while heavy pigs, sheep and calves require 0.7 to 0.8 m<sup>2</sup> per animal.

Animals must be able to eat, drink, lie down and move comfortably, thus meeting their welfare needs. Space must be available for droving and sorting of animals, and for cleaning.

Sharp corners should be avoided within the lairage area. An isolation pen with separate drainage must be provided within the lairage area to separate unwell stock or suspect stock that require in-depth inspection. The lairage area is classified as dirty, and must be physically separated from the slaughter line.



Figure 1.1. lairage

### **Stunning/killing**

The stunning box and equipment is tailored for each animal species; provision of suitable constraints facilitates best stunning practice. Stunned animals must be rapidly bled and shackled, fulfilling animal welfare requirements.

Blood is usually collected using contained drainage or a receptacle, but special equipment (hollow knives connected with tubing to a sealed tank) is required if blood is intended for human consumption. The stunning box must be physically separated from the carcass dressing area.

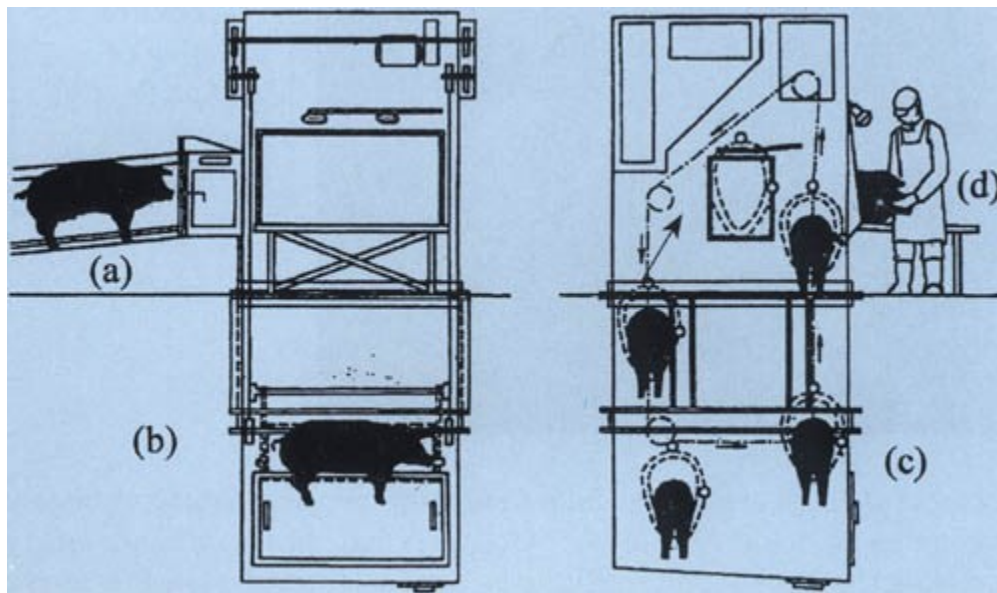


Figure1.2. stunning/ killing

### Slaughter line

The layout of each abattoir depends primarily on the flow of operations. During construction planning, the consultant Official Veterinary Surgeon must have knowledge of the hygienic flow of operations for each species to be slaughtered.

Within the slaughterline for each species, different operations must be physically separated into clean and dirty areas, and this must be extended to include staff and airflow. The guiding principle is that edible tissue, or paths of their movement, should not cross any dirty area.

The only individual to move between clean and dirty areas is the Official Veterinary Surgeon, who may conduct both ante-mortem and post-mortem inspection; but this include between-areas sanitation. Within clean areas, there is a requirement for any dirty materials (e.g. digestive tract) to be removed from the space as quickly as possible.



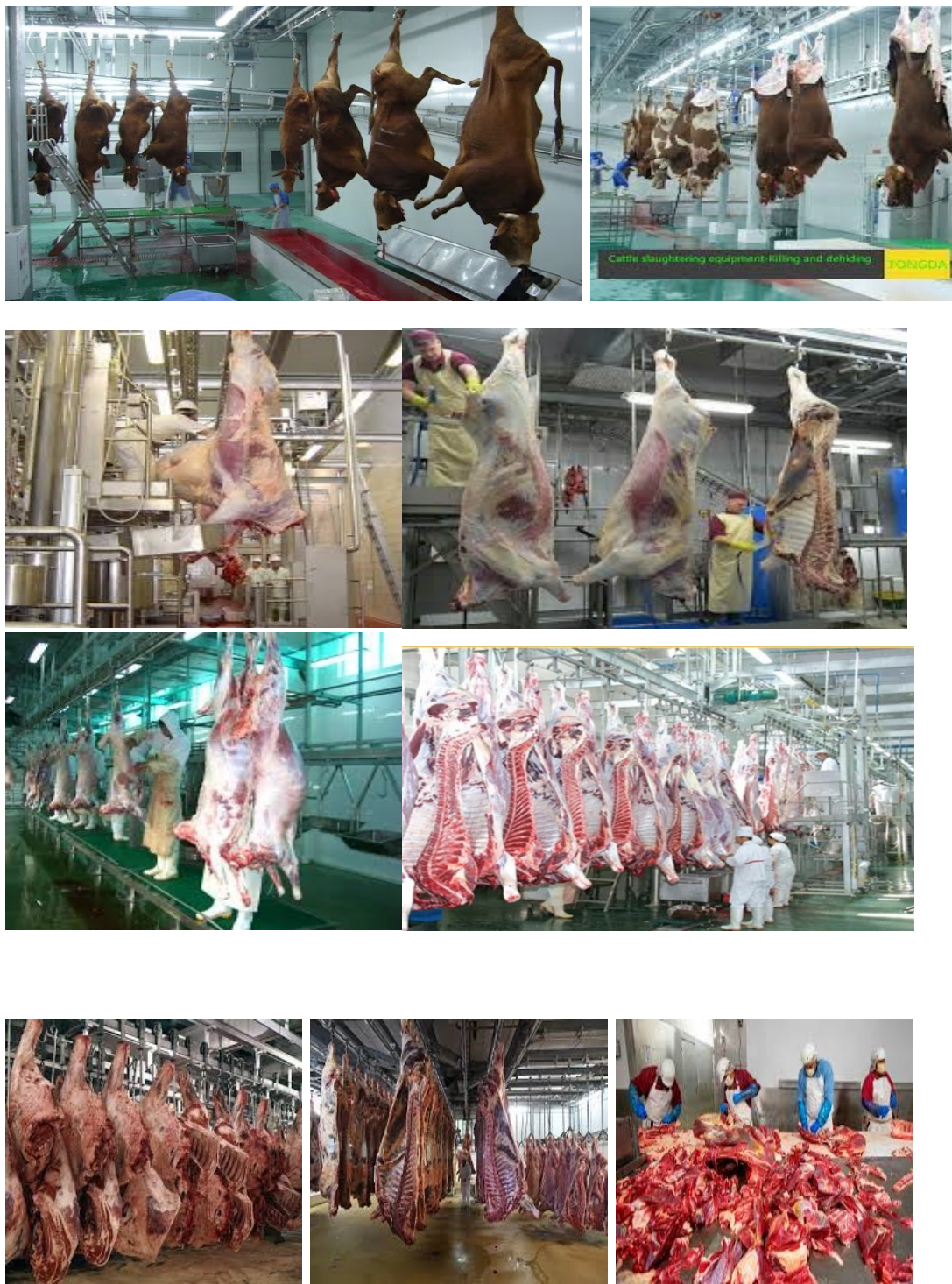
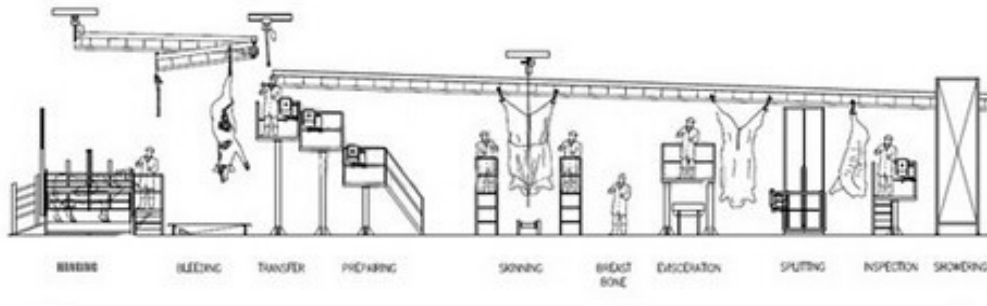
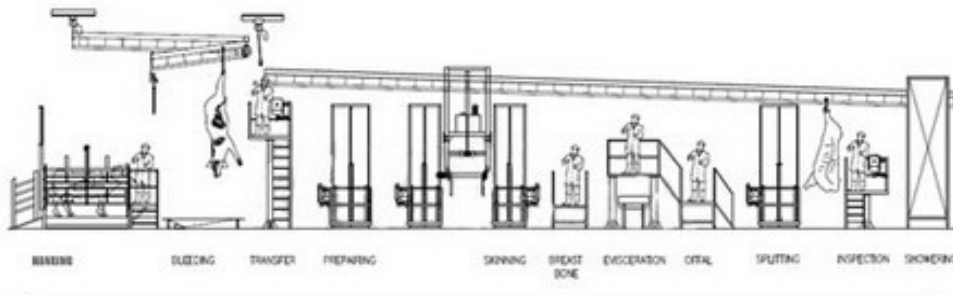


Figure 1.3. Slaughter line

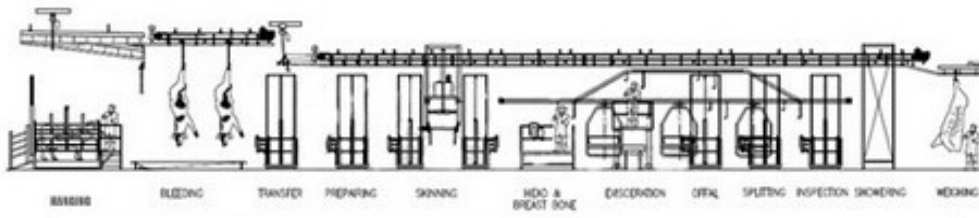
**Different designs will be adopted for slaughterhouse with different capacities:**



Suitable for cattle slaughtering lines for 15-20 heads per hour with non stop bleeding process and electric dehiding machine. Overheads inspection/supervision line.



Suitable for cattle slaughtering lines 30-40 heads per hour by gravity bleeding, electric dehiding machine, horn and hoof hydraulic slicing, heads splitting, breast bone saw, carcasses splitting, quartering, pneumatic transporter. Overheads inspection lines.



Suitable for cattle slaughtering lines 40-60 heads per hour with non stop bleeding. Double motorized chain lines for slaughtering and visceral-heads-offal inspection, automatic hooking up at regular intervals. Final rinsing.

Figure 1.4. slaughter line

The design of the carcass dressing area depends primarily on the animal species to be slaughtered and the technology selected. Floor/wall intersections should not be 90°, as

right-angle joints are difficult to clean and sanitize effectively, but should be smoothly arced.

Surfaces coming into contact with edible tissues must be capable of being sterilized; this is achieved normally by hot water (at 82°C), effectively killing most vegetative bacteria, but not spores and prions. Planning for multi-species abattoirs must allow separate lines for each species to be slaughtered. Separation is ideally physical, with completely separate lines and equipment.

Nonetheless, species separation can be improvised in smaller abattoirs by temporal separation of slaughter for different animal species. Separate containers for edible and non-edible tissues are required within the slaughter hall, and these must be dedicated and easily identifiable. Separate rooms must be provided for gut separation and processing. At each workstation along the slaughter line, appropriately located washing stations and knife sterilizers must be provided.

### **Meat inspection**

Adequate facilities for meat inspection must be provided, including means of approaching carcasses and organs during inspection, as well as appropriate facilities, including good lighting, washing stations, knife sterilizers, separate room for retained meat, office, etc. Lighting, measured at 0.9–1.5 m height, should be  $\geq 540$  lux at the inspection points,  $\geq 200$  lux in work rooms, and  $\geq 110$  lux in other rooms.





Figure 1.6. inspecting

### Meat refrigeration

The chill capacity must be related to the slaughter capacity of the plant, and must be sufficient to lower the temperature within the specified time. Chilling of meat is primarily conducted to limit bacterial growth, but also to facilitate normal post-mortal processes in the meat. Naturally, some of the bacteria which contaminate meat may be pathogenic, so effective meat chilling (carcasses  $\leq 7^{\circ}\text{C}$ , offal  $\leq 3^{\circ}\text{C}$ ) is required to limit their proliferation.



The layout of the chillers is critical, since positioning of rails must allow carcass separation, while positioning of the blowers must ensure the air is circulated evenly throughout the room. In a full chiller, all carcasses must be effectively and evenly chilled, and their surfaces dried.



During chilling, it is essential to avoid condensation on the carcass surfaces, as it can enable bacteria to grow. Also, condensate from chiller/blower and rail lubricants must not drip on carcasses.

In addition, the chiller doors must be effectively sealed. Keeping the doors closed and sealed helps maintenance of correct temperature, and also reduces moisture condensation from warm outside air on the carcass surfaces.





## Meat cutting/boning

The meat-cutting and deboning areas involve extensive meat handling and resulting microbial cross-contamination. Therefore, meat leaving these areas carries higher levels of bacteria than meat in the preceding chiller areas.



The temperature in meat-cutting areas should be ( $\leq 12^{\circ}\text{C}$ ) low in order to control bacterial proliferation. However, it is not practical to debone meat in a room much below  $12^{\circ}\text{C}$ , due to chill stress of the workers and loss of their manipulative abilities. Also, in cold rooms of  $4^{\circ}\text{C}$  and below, nasal discharges from personnel can be more frequent/prolific.



Because each piece of meat contacts many surfaces (conveyor belts, cutting boards), these must be designed to allow effective cleaning and sanitation. Butchery and wrapping areas must be separate from storage room for packaging materials, as they are a source of bacterial contamination.



### **Materials and equipment**

Materials and equipment used in the abattoir should be considered from the point of view of controlling contamination. Materials should be as durable as possible and be capable of being cleaned and sanitized effectively.

However, a frequent drawback of such materials is that they tend to be more expensive than other available choices. Both materials and equipment should have smooth, impermeable surfaces. Concrete, tiles or modern, composite moulded plastic walling is often used. Surfaces should not be subject to cracking, and should have as few joints as possible.



Figure 1 sanitation material meat industry

Cracked surfaces and joints are difficult to clean effectively, which will make later dirt removal and sanitation difficult. Floors of lairages and slaughter halls must be easily drained, so that pooling of water and liquid wastes does not occur, with a gradient of not less than 1 in 50. Drains should be covered with screens (holes of 4–6 mm diameter) and located at the rate of at least one per 40 m<sup>2</sup>.



Figure 2 Pork meat processing

In general, equipment used within abattoirs should be considered by the same principles as materials and surfaces (discussed above). Equipment must be composed of smooth materials; rough materials are more likely to harbour organic matter and microorganisms. Abattoir equipment is mostly manufactured from stainless steel or other non-oxidizing metal alloys. Machinery must be easy to dismantle, enabling cleaning and sanitation of all parts. Water from wash stations should not drain onto floors as this is conducive to the spread of contamination, but must be ducted directly



into the sewerage system. Separate and identifiable equipment is required for inedible and condemned animal parts/tissues.

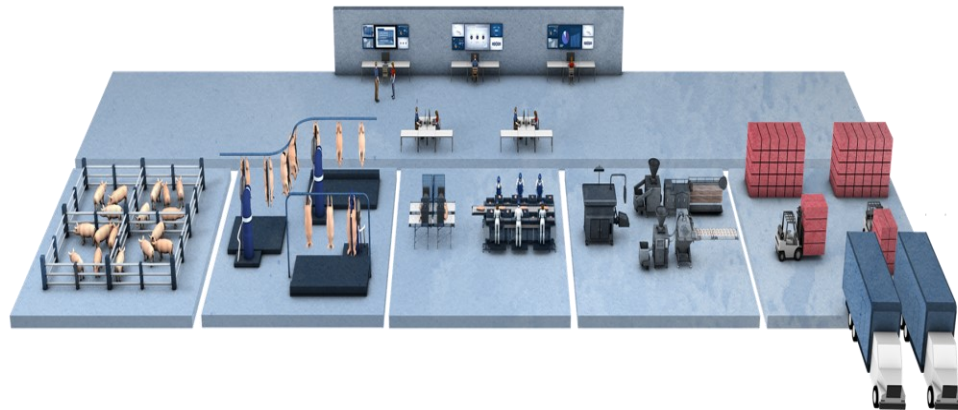


Figure 1 structure of meat industry

<b>Self-check 1</b>	<b>Written test</b>
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Name..... ID..... Date.....

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test I: Choose the best answer (2 point)**

1. . The main function of the Official Veterinary Surgeon is normally regarded as being to audit the abattoir, post-construction.  
a. True b. false
2. Abattoirs should not be sited in flood-prone areas, because of risks from contamination of the abattoir itself and/or its water supply,  
a. True b. false
3. The lairage area is classified as dirty, and must be physically separated from the slaughter line.  
a. True b. false
4. The stunning box and equipment is tailored for each animal species; provision of suitable constraints facilitates best stunning practice.  
a. true b. false
5. Blood is usually collected using contained drainage or, but special quipment is required if blood is intended for human consumption.  
a. True b. false

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

## Livestock Products as Food

On a world-wide basis cereals supply more than 50% of human requirements for energy and nearly 50% of the protein. Animal products, meat, milk, eggs and animal fats, supply 17% of the energy and 32% of the protein but there are vast regional differences between developed and under-developed countries.

The ranges indicate considerable differences even between countries classed together as developed or developing.

### Types of Meat

Meat is the flesh and organs of animals and fowls. There are various legal definitions of meat in different countries designed to control the composition of products made with meat







Figure 4 meat types in market area

The flesh of cattle, pigs and sheep is distinguished from that of poultry by the term red meat, while the flesh of poultry (chicken, turkey, duck, pigeon, guinea fowl) is termed white meat.

The most common sources of meat are domesticated animal species such as cattle, and pigs and poultry and to a lesser extent buffaloes, sheep and goats. In some regions other animal species such as camels, yaks, horses, ostriches and game animals are also eaten as meat. To a limited extent, meat is also derived from exotic animals such as crocodiles, snakes and lizards.

For thousands of years, poultry supplied meat and eggs, cattle, sheep and goats provided meat and milk, and pigs provided a source of meat. These species are the main sources of animal protein for humans. The meat derived from cattle is known as beef, meat derived from pigs as pork and from chickens as poultry. Pork is the most widely eaten meat in the world accounting for over 36% of the world meat intake. It is followed by poultry and beef with about 35% and 22% respectively.





Figure 5 market area

Table1. Estimated world livestock numbers (million head)

Meat types	% of world
Cattle and buffaloes	16.5
Pigs	13.8
Poultry	85
Sheep and goats	20.6

<b>Self-check 2</b>	<b>Written test</b>
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Name..... ID..... Date.....

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test I: Choose the best answer (2 point)**

1. What is meat mean and its product in the world?
  - a. flesh and organs of animals and fowls
  - b. animal fat
  - c. Flesh of cattle
  - d. Flesh of poultry
2. what red meat products
  - a. flesh of cattle
  - b. pork of pigs
  - c. sheep of mutton
  - d. all
3. what are white meat products?
  - a. chicken,
  - b. b .turkey,
  - c. duck,
  - d. all
4. Pork is the most widely eaten meat in the world accounting for over 36% of the world meat intake.
  - a. True    b. false
5. The meat derived from cattle is known as beef, meat derived from pigs as pork and from chickens as poultry.
  - a. True                      b. false

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



### **The slaughter process from live animal intake to chilling:**

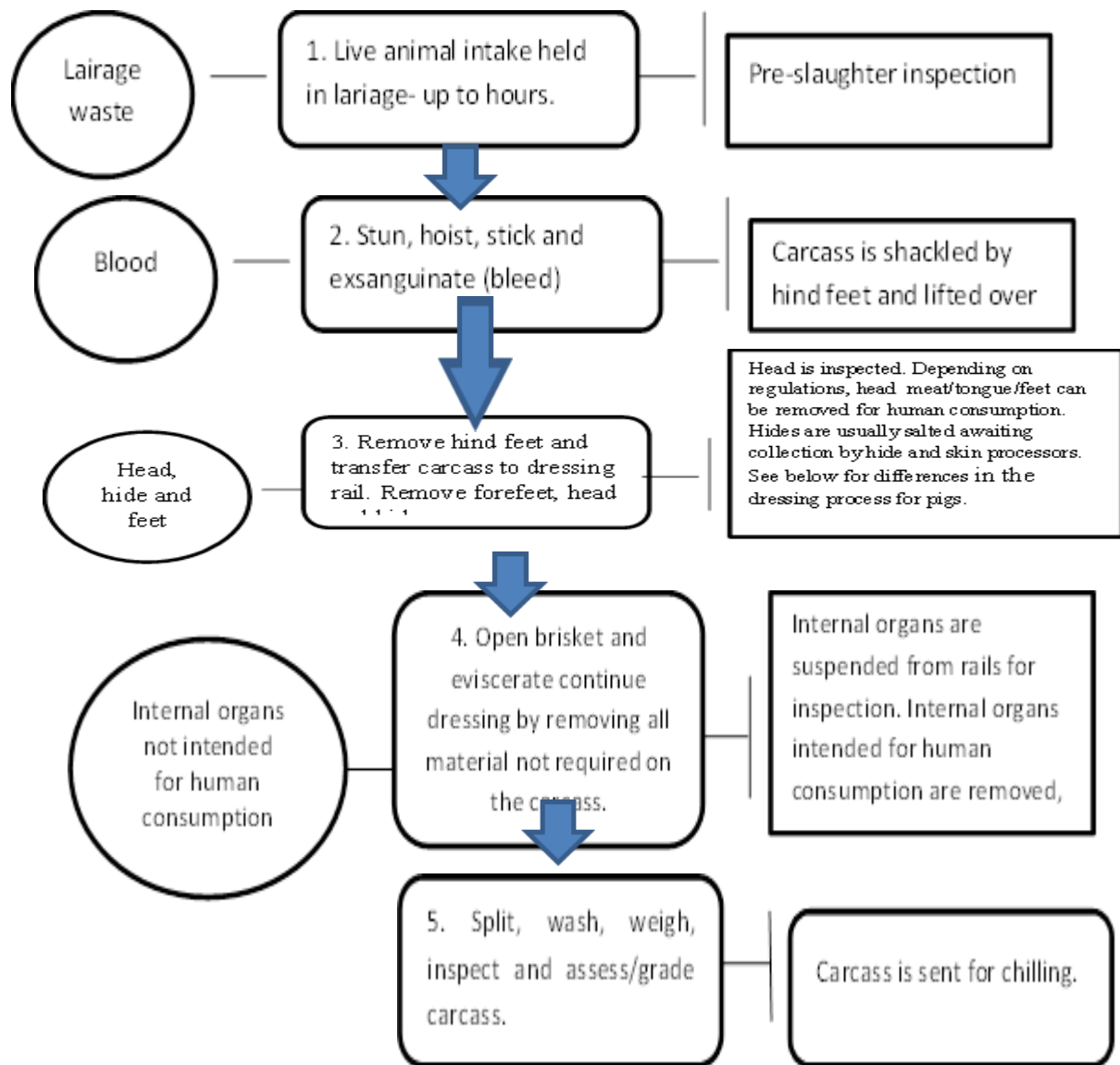
#### **Cattle and pigs**

The slaughtering process requires that a potable water supply be available to wash the carcass and that provision be made to sterilize knives used in the process of sticking (severing the carotid artery terminating blood supply to the brain) and after slaughter of “dressing” the carcass.

Dressing involves removal of the hide, head, feet and internal organs and should be done in such a way as to prevent contamination of the carcass by faecal material, and gut and stomach contents.



**Figure 1 path of meat paddock (farm) to table**



<b>Self-check 3</b>	<b>Written test</b>
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Name..... ID..... Date.....

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test I: Choose the best answer** (2 point)

1, ----- should be performed by transverse cut of the neck at the C1 – C3 (cervical vertebra) level, and severe both carotids.

- A. Bleeding
- B. Evisceration
- C. Lairage
- D. All**

2. The bleeding should be carried out within 20 seconds from stunning.

**A. True      B. false**

3. If a good flow is not observed, the blood vessels should be cut again as they may not be entirely severed.

A. True      B. false

1. No slaughter procedure subsequent to bleeding can be carried out until animal's death is ascertained.

A. True      B. false

**Test I: Short Answer Questions**

1. Explain the bleeding procedure (4pt)
2. Write the working closes (4pt).

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

## Information sheet 4 Tracing flow diagrams and process steps

Description of the red meat processing chain the main stages in the red meat processing chain are the following:

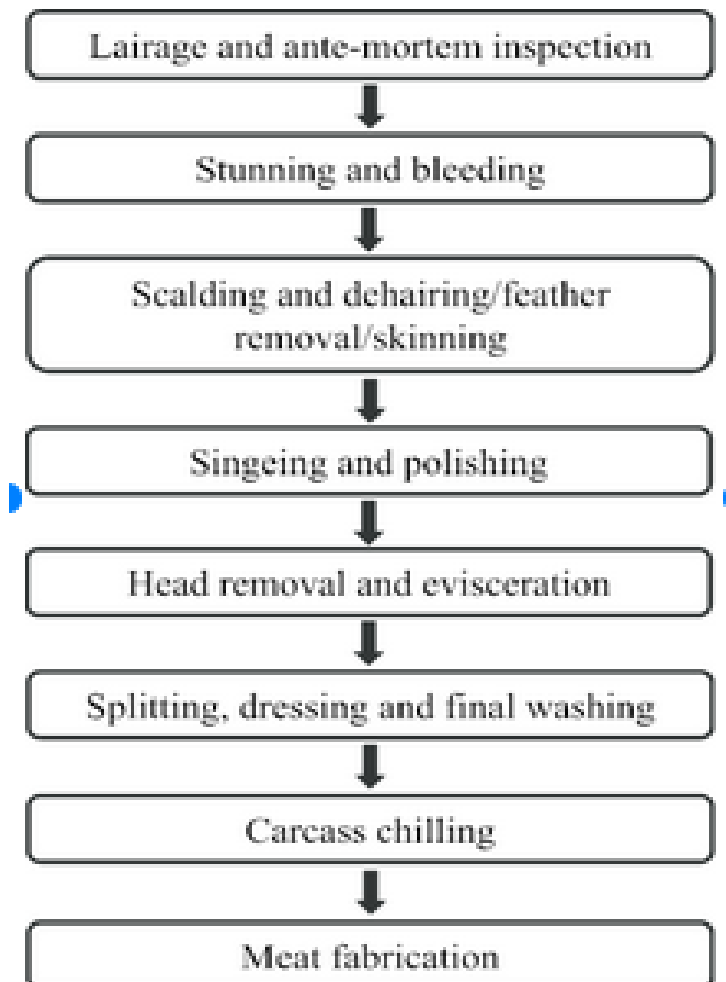
### **Primary processing that involves:**

- Taking live animals into Lairage (the resting of animals prior to slaughter) and conducting a pre slaughter inspection (including sometimes recording of the live weight);
  - Slaughtering/dressing, which in larger plants takes place at the point where the animal is stunned and exsanguinated (bled). The carcass is then moved along a mechanized line (suspended from an overhead rail) to specific workstations at which the various processes involved in converting live animals into carcasses (together with a residual of waste products; see the “waste” section below) are undertaken. In plants that handle multispecies, there is a separate slaughter line for each species
  - Chilling of carcasses in refrigerators to specified deep-muscle temperatures (in the EU, the specified temperature is 7 °c for carcass meat and 3 °c for offal);
  - Cutting of deboned primals (chilled carcasses or half or quarter carcasses) and then vacuum packing, boxing and palletizing the products; and
  - Storing in refrigerators. Refrigerated storage is used for the short-term storage of the meat before sale as fresh product or before transfer for secondary processing. It is also used for the ageing/maturation of meat to improve the eating quality.
- ✓ For longer life, products need to be frozen.

### **Secondary processing that involves:**

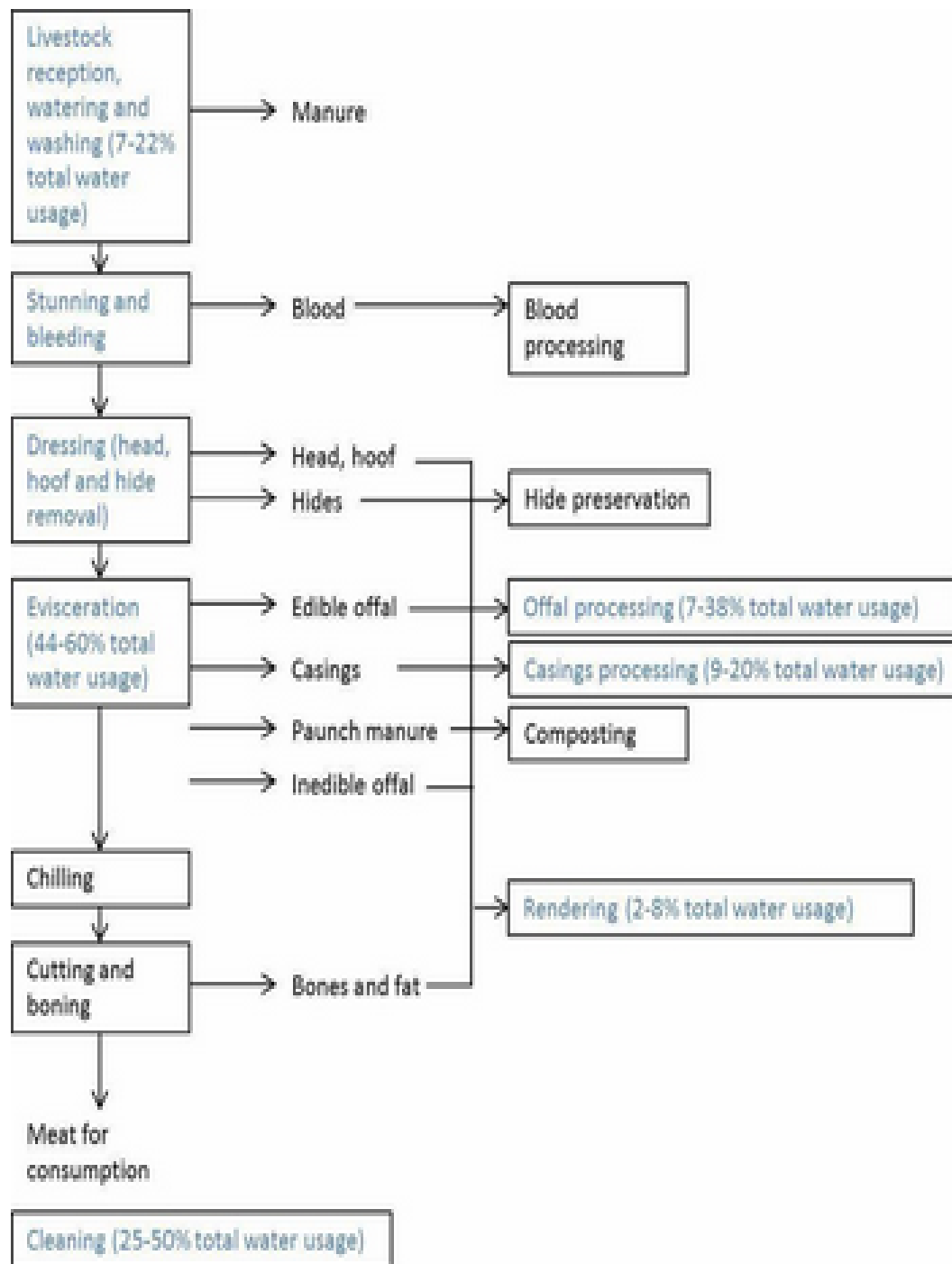
- Cutting up primals into smaller, fresh cuts of meat such as consumer portions of steaks and chops. This process ends with the packing/labelling of the product for sale through either the retail sector or food services;

- Preparing and dicing (pad) and mincing meat to produce, for example, comminuted meat (packed and chilled or frozen for longer life) for sale as fresh product or for use in further processing;
- Preparing fresh meat and recipe products such as burgers, sausages and reformed products, and ready-to-cook convenience meats breaded and coated, with flavourings or seasonings; and
- Cooking, curing, drying/smoking or canning fresh meat to produce manufactured products that include prepared foods and ready meals for which meat is an ingredient.



**Figure 1. Flow diagram of meat fabrication**

Figure 1. Process flow diagram of red meat processing operations. Operations with a substantial water consumption rate are highlighted in blue.



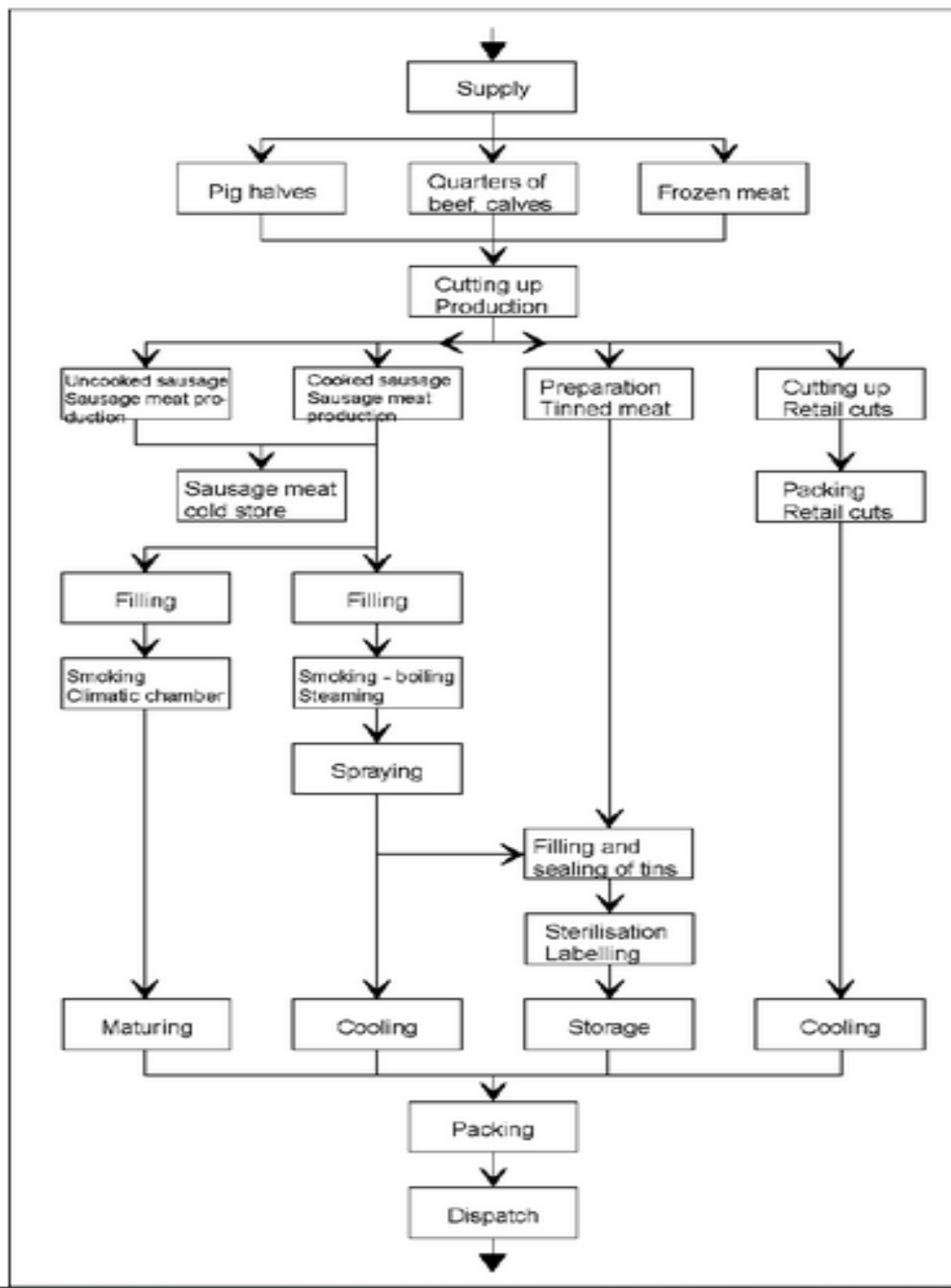


Figure 1. Flow chart of a meat product factory

<b>Self-check 4</b>	<b>Written test</b>
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Name..... ID..... Date.....

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test I: Choose the best answer (2 point)**

1, taking live animals into lairages (the resting of animals prior to slaughter) and conducting a pre slaughter inspection (including sometimes recording of the live weight);

A. true b. false

2. Cooking, curing, drying/smoking or canning fresh meat to produce manufactured products that include prepared foods and ready meals for which meat is an ingredient.

a. True b. false

3. Slaughtering/dressing, which in larger plants takes place at the point where the animal is stunned and exsanguinated (bled).

a. True B. false

4. cutting of deboned primal (chilled carcasses or half or quarter carcasses) and then vacuum packing, boxing and palletizing the products

a. True B. false

**Test I: Short Answer Question (4pt)**

2. Flow diagram of meat fabrication

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

## Information sheet 5 Identify role of employee

### The following employee responsibilities under the OHS Act:

- Employees must take reasonable care of the health and safety of themselves and others
- Employees must cooperate with employers in their efforts to comply with occupational health and safety requirements
- Employees must not interfere with or misuse items provided for the health, welfare of persons at work
- Employees must not obstruct attempts to give aid or attempts to prevent serious risk to the health and safety of a person at work
- Employees must not refuse a reasonable request to assist in giving aid or preventing a risk to health and safety
- Employees must not disrupt the workplace by creating false health or safety fears.
- A basic understanding of the formation, role and responsibilities of the OHS committee in the workplace.

People with personnel authority managers and supervisors are charged with avoiding these 12 prohibited personnel practices:

- i. Illegally discriminate for or against any employee/applicant
2. Solicit or consider improper employment recommendations
3. Coerce an employee's political activity
4. Obstruct a person's right to compete for employment
5. Influence any person to withdraw from competition for a position
6. Give unauthorized preference or improper advantage
7. Employ or promote a relative
8. Retaliate against a whistleblower, whether an employee or applicant
9. Retaliate against employees or applicants for filing an appeal
10. Unlawfully discriminate for off-duty conduct
11. Knowingly violate veterans' preference requirements



12. Violate any law, rule, or regulation which implements or directly concerns the merit principles

### **Employee responsibilities prescribed in OHS legislation, codes and national standards**

An employer has many responsibilities related to the provision of a safe work place. However you, the employee, also have significant responsibilities.

#### **You are required:**

- To be responsible for your own health and safety
- Act in a manner that will not affect the safety of yourself or others
- Make a constructive contribution to workplace meetings, workplace activities, inspections or other workplace OHS consultative activities and raise workplace OHS issues with designated personnel according to organizational procedures
- Complete daily tasks and operate equipment following designated safe work procedures
- To never work under the influence of drugs or alcohol
- Correctly use and look after any Personal Protective Equipment provided
- Follow all reasonable instructions
- Participates in appropriate induction and training as required
- Workers have the right to participate in the workplace health and safety system, and the right to refuse work that is believed to be unsafe.

<b>Self-check 5</b>	<b>Written test</b>
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Name..... ID..... Date.....

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test I: Choose the best answer (2 point)**

1, Employees must cooperate with employers in their efforts to comply occupational health and safety requirements

a. true          b. false

2. Employees must not interfere with or misuse items provided for the health, safety or welfare of persons at work

a. true          b. false

3. Employees must not obstruct attempts to give aid or attempts to prevent serious risk to the health and safety of a person at work

a. true    b. false

4. Employees must not refuse a reasonable request to assist in giving aid or preventing a risk to health and safety

a. true          b. false

5. Employees must not disrupt the workplace by creating false health or safety fears.

a. true          b. false

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

## LG #26

**LO #2- Apply and Demonstrate awareness of environmental issues and policy in the meat industry**

### Instruction sheet

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

- Identify and applying relevant environmental work policies
- Identifying the role of trainees
- Obtaining information on working conditions and identifying important elements
- Identifying relevant environmental regulator requirement
- Identifying work environmental requirements and policies
- Identifying nature and role of work instructions, Standard Operating Procedures (SOPs), explaining and reporting
- Explaining Relevance of Occupational Health and Safety (OHS)
- Identifying consequence of not following work environment

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

- Identify and apply relevant environmental work policies
- Identify the role of trainees
- Obtain information on working conditions and identifying important elements
- Identify relevant environmental regulatory requirement
- Identify work environmental requirements and policies
- Identify nature and role of work instructions, Standard Operating Procedures (SOPs), explaining and reporting
- Explain Relevance of Occupational Health and Safety (OHS)
- Identify consequence of not following work environment

### Learning Instructions:

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			October 2020

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below.
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4. Accomplish the “Self-checks” which are placed following all information sheets.
5. Ask from your trainer the key to correction (key answers) or you can request your trainer to correct your work. (You are to get the key answer only after you finished answering the Self-checks).
6. If you earned a satisfactory evaluation proceed to “Operation sheets
7. Perform “the Learning activity performance test” which is placed following “Operation sheets” ,
8. If your performance is satisfactory proceed to the next learning guide,
9. If your performance is unsatisfactory, see your trainer for further instructions or go back to “Operation sheets”.

## Information Sheet 1- Identify and applying relevant environmental work policies

“Livestock Production Systems and their Environmental Implications in Ethiopia” is the third chapter in Environmental Policy Review 2011, a report produced by the Environmental Policy Group in the Environmental Studies Program at Colby College in Waterville, Maine. As an agricultural country with a low level of economic development, livestock are estimated to contribute to the livelihoods of 60-70% of the population of Ethiopia. Subsequently, the Ethiopian livestock herd is the largest of any African nation. Livestock help perform a wide variety of functions for Ethiopians and are among the most important commodities of the country.

Livestock and the environment have a close and complex relationship. Livestock depend on the availability of water and feed, and can generate solid, liquid and gaseous ‘by-products’ that have a negative impact on the environment.

They rely on land and water for the provision of feed, thereby determining land use with further environmental consequences. If not managed properly, livestock production can have negative impacts on the environment through:

- Overgrazing and improper land conversion resulting in grassland degradation
- Excessive application of manure from livestock production leading to nutrient overloading of cropland
- Manure and effluent mismanagement resulting in water pollution (chemical and microbiological)
- Water withdrawals for the production of animal feed, drinking, cleaning and processing causing water stress
- Greenhouse gas (GHG) emissions from enteric fermentation; manure management including manure left on pasture, range and paddock; and energy-use contributing to climate change
- Airborne contaminants including gases, odour, dust, and microorganisms impairing air quality

- Land use change and all of the above leading to biodiversity loss and reduced ecosystem services.

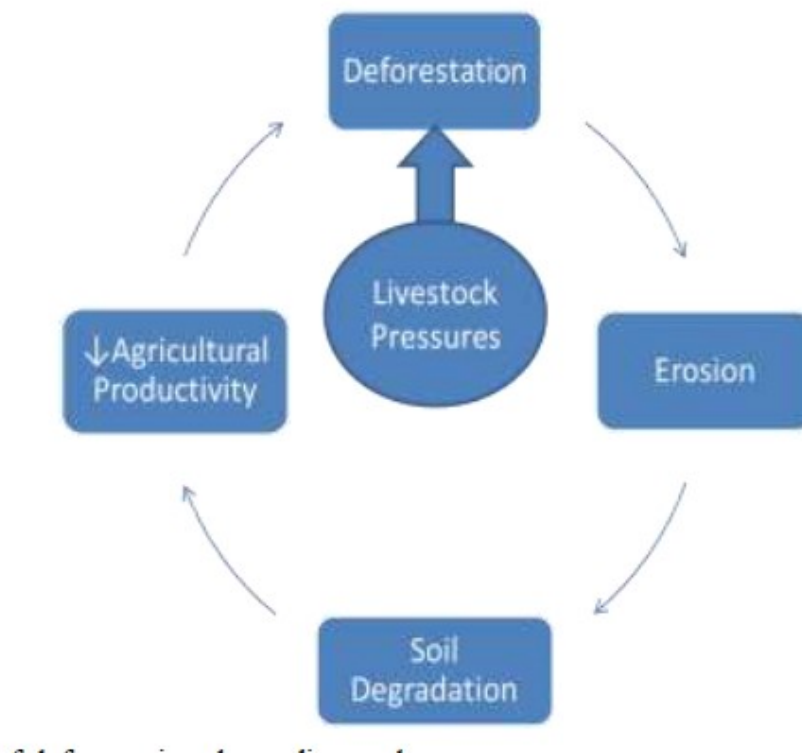
Environmental Impact Assessment Proclamation, Proclamation No 99/200 This proclamation establishes the requirement of an EIA procedure for all projects, and clearly describes the procedures to be followed by project proponents with respect to EIAs. The EIA process described in the proclamation underscores the presence of consultation requirements Environmental and Social Management Framework - Second Phase of UWSSP 22 where reports are to be made public, and the comments of the public (especially of the project affected people) are to be solicited and taken into consideration in the review process undertaken by the federal or regional environmental agency in charge of the project. On top of this, the proclamation makes EIA mandatory for specified categories of activities undertaken either by the public or private sectors, or possibly, for the extension of EIA to policies, plans and programs in addition to projects. The proponent of the project (whether it is public or private body) must prepare an EIA following the requirements specified in the legislation (article 8) and associated guidelines. The MoEFCC or the sector Ministries delegated by it and relevant Regional Environmental Agencies will then review the EIA and either approve the project (with or without conditions) or reject it.

The Proclamation on Environmental impact assessment requires, among other things:

- Specified categories of projects to be subjected to an EIA and receive an authorization from the MoEFCC or the relevant regional environmental agency prior to commencing implementation of the project.
- Licensing agencies to ensure that the requisite authorization has been duly received prior to issuing an investment permit, a trade or operating license or a work permit to a business organization.
- MoEFCC or the relevant regional environmental agencies may issue an exemption from carrying out an EIA in projects supposed to have an insignificant environmental impact.
- A licensing agency may suspend or cancel a license that has already been issued where the MoEFCC change or the relevant regional environmental

agency suspends or cancels environmental authorization. Procedures that need to be followed in the process of conducting an EIA are described in the Proclamation and further elaborated in the draft EIA procedural guideline issued in 2003 E.C. Thus a project developer is expected to act as follows:

- Undertake a timely EIA, identifying the likely adverse impacts, and incorporating the means of their prevention.
  - Submit an environmental impact study report to the MoEFCC , delegated MoWIE or the relevant regional environmental agency for review and approval. To put this Proclamation into effect the MoEFCC has issued an EIA Directive (Directive no.1/2008) and other draft procedural guideline documents, which provide details of the EIA process and its requirements.
- 3.5. Regulation on Environmental Impact Assessment Based on the Federal EIA Proclamation No 299/2002, many of the regional states have prepared and put in force their own EIA regulations. Some of these regional EIA regulations put stricter rules on the project proponents and EIA practitioners to facilitate for the preparation of EIA's with



## Figure Deforestation due to livestock pressures

Self-check 1	Written test
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Name\_\_\_\_\_ ID\_\_\_\_\_ Date\_\_\_\_\_

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

### Test I: Short Answer Questions (4 points each)

1. List at least two negative impacts of livestock production If not managed properly  
You can ask you teacher for the copy of the correct answers.

**Note: Satisfactory rating - 3 points**

**Unsatisfactory - below 3 points**



## Information Sheet 2- Identifying the role of trainees

Inadequate hygiene training, and/or instruction and supervision of all people involved in food related activities pose a potential threat to the safety of food and its suitability for consumption. Those engaged in food operations that come directly or indirectly into contact with food should be trained, and/or instructed in food hygiene to a level appropriate to the operations they are to perform.

*All personnel should be aware of their role and responsibility in protecting food from contamination or deterioration. Food handlers should have the necessary knowledge and skills to enable them to handle food hygienically. Those who handle strong cleaning chemicals or other potentially hazardous chemicals should be instructed in safe handling techniques.*



**Figure 2.1** provision of direction to the trainees

Factors to take into account in assessing the level of training required include:

- The nature of the food, in particular its ability to sustain growth of pathogenic or spoilage microorganisms;
- The manner in which the food is handled and packed, including the probability of contamination;
- The extent and nature of processing or further preparation before final consumption;
- The conditions under which the food will be stored; and
- The expected length of time before consumption



**Figure 2.1.** Demonstrating the work place procedure for the trainees

#### **Role of trainees in meat industry**

- Separate raw meat, poultry and seafood from other foods at all stages from cleaning, storing, preparation, and cooking.
- Use separate equipment, utensils (including washcloth) for handling raw foods meats, poultry and sea foods. Use them for other foods always only after washing with hot water and soap.
- Do not let juices or liquids from raw meats, poultry and sea foods to spill or seep onto other surfaces or come into contact with cooked or other raw foods.
- Store foods in covered containers to avoid cross-contamination between raw and prepared foods.

<b>Self-check 2</b>	<b>Written test</b>
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Name\_\_\_\_\_ ID\_\_\_\_\_ Date\_\_\_\_\_

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test III: Short Answer Questions**

1. List at least two important factors to take into account in assessing the level of training required for employee (3 point)

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

**Note: Satisfactory rating - 3 points**

**Unsatisfactory - below 3points**

<b>Information Sheet 3- Obtaining information on working conditions and identifying important elements</b>
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## **Emergency Procedures & Reporting Incidents, Injuries, or Illnesses**

### **Emergencies**

Dial the emergency number in the event of fires, medical emergencies, or other serious threats. Industry police may also be contacted at the work sites for non-emergencies. Follow the procedures outlined by your department in the event of emergencies.

If the emergency or problem involves the animals, refer to the emergency contact placards posted in the animal facility for the names and phone numbers of the appropriate contact person(s) for that facility.

### **Reporting Work Place Incidents, Injuries, Illnesses, or Near Misses**

To promote a safe work environment, all work related near misses, incidents, injuries, illnesses and exposures will be reported immediately or within 24 hours by the employee to their immediate supervisor or next person in charge at the time of injury, and the Safety Office.

When a work related incident/injury/illness/exposure occurs, whether medical attention is needed or not, the following steps must be followed:

An employer has many responsibilities related to the provision of a safe work place. However you, the employee, also have significant responsibilities.

You are required:

- To be responsible for your own health and safety
- Act in a manner that will not affect the safety of yourself or others
- Make a constructive contribution to workplace meetings, workplace activities, inspections or other workplace OHS consultative activities and raise workplace OHS issues with designated personnel according to organizational procedures
- Complete daily tasks and operate equipment following designated safe work procedures
- To never work under the influence of drugs or alcohol
- Correctly use and look after any Personal Protective Equipment provided
- Follow all reasonable instructions

- Participates in appropriate induction and training as required

Workers have the right to participate in the workplace health and safety system, and the right to refuse work that is believed to be unsafe.

<b>Self-check 3</b>	<b>Written test</b>
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Name\_\_\_\_\_ ID\_\_\_\_\_ Date\_\_\_\_\_

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test III: Short Answer Questions**

1. List the reporting Work Place Incidents, Injuries, Illnesses, or Near Misses in to OHS in meat industry

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

**Note: Satisfactory rating - 3 points**

**Unsatisfactory - below 3points**



#### **Information Sheet-4- Identifying relevant environmental regulatory requirement**

Environmental impact assessment (EIA for short) is a recent phenomenon in Ethiopia. It became a legally required procedure toward the end of year 2002, though emerged de facto before 2002 when a few land developers, including state-owned agencies, approached the Environmental Protection Authority (EPA) to have their environmental impact studies reviewed. Since the Environmental Impact Assessment Proclamation № 299 of 2002 was adopted by the House of Peoples' Representatives, some efforts have been made to implement the law by the EPA and the relevant regional environmental organs, which were themselves established by Proclamation № 295 of 2002. In spite of these efforts, EIA in Ethiopia has until now remained weak

The Environmental Policy of Ethiopia provides a number of guiding principles that require adherence to principles of sustainable development; in particular, the need to ensure that EIA's:

1. Consider impacts on human and natural environments
2. Provide for early consideration of environmental impacts in projects and projects Design;
3. Recognize public consultation;
4. Include mitigation and contingency plans;
5. Provide for auditing and monitoring; and
6. Is a legally binding requirement.

Governmental goals for the livestock sector focus on improving productivity, which will indirectly improve the per-animal environmental impacts by providing a more productive base (the same amount of erosion per cow, but less erosion per kilo of meat or per other animal's product per kilo or liter.

#### **Major livestock problems:**

- \*Genetic problems (e.g., low quality breeding stock, disease)
- Fodder availability and fodder quality
- Veterinary services (access & quality)
- Marketing

**Work instruction**

- Workers must maintain good personal cleanliness.
- Wash hands every time after using toilets and before handling produce.
- Not handle food if suffering from infectious disease.
- Smoking, eating, chewing gum should not be allowed in production or processing areas.
- Spitting, sneezing and coughing on the produce should be prohibited.
- Personal affects like Jewellery, watches should not be allowed into the food producing area.

Self-check 4	Written test
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Name\_\_\_\_\_ ID\_\_\_\_\_ Date\_\_\_\_\_

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test I: Choose the best answer** (3points each)

1. List the principles guide line in the Environmental Policy of Ethiopia.
2. List major problems of livestock's in relation to environmental issues.

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

**Note: Satisfactory rating – 4 points**

**Unsatisfactory - below 4 points**

## **Information Sheet 5- Identifying work environmental requirements and polices**

### **Good Hygiene Practices (GHP)**

All practices regarding the conditions and measures necessary to ensure the safety and suitability of food at all stages of the food chain. (FAO). These include

- Suitable facility design and maintenance
- Thoughtful equipment design and maintenance
- Documentation that includes procedures, forms and manuals
- Process validation
- Corrective and preventive actions
- Control of non-conforming products
- Traceability
- Management of incidents and product recall
- Job training and competence
- Hygiene and sanitation
- Waste removal
- Pest control
- Chemical and physical product contamination Control
- Prevention of cross contamination.
- Dispatch and transport
- Allergen management
- Product packaging and labelling
- Personal hygiene
- Internal audits for hygiene, food safety and Quality

### **Good Agricultural Practices (GAPs)**

GAPs are practices that ensure environmental, economical and social sustainability for on-farm practices (and post production practices) resulting in safe and quality food and non-food agricultural products (FAO 2003).

- These are applied taking into consideration food safety
- hazards from the following sources:
- Environment
- Agricultural inputs (soil, water, seeds,
- Agrochemicals, organic / inorganic fertilizers, animals)
- Workers
- Growing practices
- Harvest and transportation
- Facilities (storage areas for produce, equipment, pesticides etc)
- Equipment, tools, utensils.

### **Quality Control**

Quality is a measure of excellence or a state of being free from defects, deficiencies and significant variations. Controlling process inputs and operations in terms of:-

- Correct temperature,
- Pressure,
- Humidity
- Water activity ( $a_w$ )
- PH levels
- Contamination (extraneous material)





<b>Self-check 5</b>	<b>Written test</b>
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Name\_\_\_\_\_ ID\_\_\_\_\_ Date\_\_\_\_\_

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test I: Short Answer Questions (2 points each)**

1. Explain the economic and environmental importance of GAPs
2. List the importance of QC in Controlling process inputs and operations in meat industry.

**Test II:**

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

**Note: Satisfactory rating - 4 points**

**Unsatisfactory - below 4 points**

<b>Information Sheet 6- Identifying nature and role of work Instructions Standard Operating Procedures (SOPs),</b>
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### **6.1. Standard operating procedures (SOPs)**

- Develop SOPs incorporating the step-by-step procedures on how each task is accomplished and includes how tasks will be monitored and corrective and preventives actions taken.
- A Standard Operating Procedure is a document which describes the regularly recurring operations relevant to the quality of the investigation. The purpose of a SOP is to carry out the operations correctly and always in the same manner. A SOP should be available at the place where the work is done. (FAO)
- SOPs aim to achieve efficiency, quality output and uniformity of performance, while reducing miscommunication and failure to comply.

#### **Standard Operating Procedures**

- Are powerful tools for seizing control of work procedures?
- In fact, they can really make the difference between success and failure in today's dairy economy. Why? Because SOPs are effective communication tools that contribute to both worker understanding and job satisfaction.

#### **The objectives of SOPs are to:**

- Provide work direction
- Improve communication
- Reduce training time
- Reduce variation

Therefore, through apply constant standard operating procedure evaluation of basic dairy infrastructure/facility design and maintenance, as well as assessing your management practices for proper handling and provide training of employees, are all factors when working to increase the productivity and welfare on dairy farm. This also include

- A person in charge must take reasonable actions in the construction, maintenance and operation of facilities and equipment to ensure the welfare of cattle.

- Facility construction or modification should take into account, cattle behavior topography (location and drainage) flood and fire risk climate purpose/length of confinement space feed and water space requirements shade/shelter surface materials cleaning and waste disposal.
- Passage ways, races and entrances should be designed to take advantage of cattle behavior and to reduce stress during movement through facilities.
- Visual barriers should be used as appropriate.
- Changes in levels, poor lighting, narrow or uneven passages, and awkward turns should be avoided
- The surfaces of yards, pens, tracks and laneways should be constructed and maintained to minimize the risk of lameness, slips and falls.
- Facilities should be free of protrusions and obstacles that may cause injury.
- Water sprinklers should be used to reduce dust levels and provide cooling during handling in yards as appropriate.

<b>Self-check 6</b>	<b>Written test</b>
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Name \_\_\_\_\_ ID \_\_\_\_\_ Date \_\_\_\_\_

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test I: Short Answer Questions ( 2 points each)**

1. Write the SOPs in meat industry and its definition
2. List the objectives of SOPs in the meat industry.

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

**Note: Satisfactory rating - 4 points**

**Unsatisfactory - below 4 points**

## Information sheet- 7 Explaining Relevance of Occupational Health and Safety (OHS)

Occupational health is a multidisciplinary field of healthcare concerned with enabling an individual to undertake their occupation, in the way that causes least harm to their health. Health has been defined as it contrasts, for example, with the promotion of health and safety at work, which is concerned with preventing harm from any incidental hazards, arising in the workplace.

### **Work place safety and health**

Workplace/Occupational health and safety (WHS)/ (OHS) is about ensuring safe and healthy working conditions, and preventing illness and injury in the workplace. Workplace OHS is probably one of the biggest, and in the future, most influential factors affecting small business (the workplace) both financially and from a human resource perspective, if not planned and addressed. The reality is that accidents happen. It is also reality that many workplaces have far too many hazards that with a bit of planning, can be significantly reduced. It may be that a better work procedure, new technology or regular training can substantially reduce safety risks to owners and employees. How do you know what safety requirements apply to your work place? There are a range of new codes of practice, safety standards, regulations and insurance impacts that affect the workplace. Each workplace will have different OHS requirements that must be met. At the most basic level, your employer is required to provide a safe workplace.

### **OHS policies and procedures**

A hazard assessment forms the basis of controlling hazards. It should be seen as an important tool in ensuring that your activities don't create risks and that the controls implemented are appropriate. Hazard assessment is something that we do every day, so don't be scared of it.

**For example:** The local shop has a sign in a frame out the front on the footpath, a gust of wind has blown the sign and frame out onto the road. Checking that the road is clear you retrieve the sign. If you put the sign back on the footpath you have removed the hazard; however another gust of wind will only cause the hazard again. If you take the

sign inside and give it to the shop owner you have removed the hazard and removed the risk of the sign blowing out onto the road again.

Under the Workplace OHS Regulations, all employers must use a 'risk management' approach to address workplace health and safety issues.

**The Regulation requires employers to:**

- Identify the hazard
- Assess the risk(s) to the health and safety of persons arising from the hazard
- Use appropriate control measures to eliminate or control the risk
- Monitor and review the control measures to ensure on-going safety



<b>Self-check 7</b>	<b>Written test</b>
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Name \_\_\_\_\_ ID \_\_\_\_\_ Date \_\_\_\_\_

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test I: Short Answer Questions ( 2 points each)**

1. Explain the importance of OHS in the meat industry
2. List the regulation of OHs in the meat industry.

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

**Note: Satisfactory rating - 4 points**

**Unsatisfactory - below 4 points**

<b>Information Sheet 8- Identifying consequence of not following work environment</b>
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### **Managing environmental risks of maintenance work**

Maintenance personnel are often required to work in areas that pose environmental risks to their safety. Environmental risks include risks to health and/or safety associated with working in the following environments:

- Working in confined spaces
- Working in hot or cold areas
- Noisy areas
- Working alone or in remote or isolated areas
- Working in poor lighting

### **Working safely in confined spaces**

#### **What is the definition of a confined space?**

Confined spaces are spaces that often have poor ventilation which allows hazardous atmospheres to quickly develop, especially if the space is small. They generally have limited or restricted means of entry and exit, and may contain harmful atmospheres or stored substances that pose a risk to employees working in them. Maintenance workers have been killed working in confined spaces. A confined space is not intended as a place of work.

Examples of confined spaces in the meat processing industry include:

- Storage tanks
- Rendering vats
- Boilers
- Pressure vessels
- Blood pits and degreasers
- Pipes, shafts and ducts
- Covered augers.

<b>Self-check 8</b>	<b>Written test</b>
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Name\_\_\_\_\_ ID\_\_\_\_\_ Date\_\_\_\_\_

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test I: Choose the best answer** (2 points each)

1. List the Environmental risks included risks to health and/or safety of human in meat industry.

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

**Note: Satisfactory rating - 2 points**

**Unsatisfactory - below 2 points**

## LG #27

### LO #3- Follow award or employment agreement provisions

#### Instruction sheet

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

- Obtaining and applying award provisions and employment conditions.
- Obtaining and explaining information on employee rights & responsibilities

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

- Obtain and apply award provisions and employment conditions.
- Obtain and explain Information on employee rights & responsibilities

#### Learning Instructions:

6. Read the specific objectives of this Learning Guide.
7. Follow the instructions described below.
8. Read the information written in the “Information Sheets”. Try to understand what are being discussed. Ask your trainer for assistance if you have hard time understanding them.
9. Accomplish the “Self-checks” which are placed following all information sheets.
10. Ask from your trainer the key to correction (key answers) or you can request your trainer to correct your work. (You are to get the key answer only after you finished answering the Self-checks).

## **Information Sheet 1- Obtaining and applying award provisions and employment conditions**

### **1.1. Introduction**

An employment contract provides the terms and conditions which govern the relationship of employment between the employer and the employee. An employment contract can be in writing, in oral or can be inferred from the conduct of the parties. However, it is always advisable to have a written document which records an employee's terms and conditions in writing and serves as a useful instrument at times of dispute.

An award is defined as the minimum terms of employment in an industry or occupation such as wages, penalty rates, leave entitlements, working conditions and other aspects of the employment relationship.

A written contract of employment may provide for wages and conditions of employment which are over and above the prevalent award system in a particular industry or organization. The terms and conditions in the employment contracts can be changed and updated at any time. A contractual arrangement can provide the employer and employee the due flexibility needed for business operations.

### **1.2. Ethiopian work environment agreements**

**Ethiopian Labor proclamation (No. 377/2003)-** Whereas it is essential to ensure that worker-employer relations are governed by the basic principles of rights and obligations with a view to enabling workers and employers to maintain industrial peace and work in the spirit of harmony and cooperation towards the all-round development of our Country.

Whereas it has been found necessary to guarantee the right of workers and employers to form their respective associations and to engage, through their lawful elected representatives, in collective bargaining, as well as to lay down the procedure for the expeditious settlement of Labor disputes, which arise between workers and employers;

Whereas it is necessary to strengthen and define by law the powers and duties of the Government organ charged with the responsibility of inspecting, in accordance with the law, Labor administration, particularly Labor conditions, occupational safety, health and work environment;

Whereas it has been found necessary to revise the existing law providing for the basic principles which govern worker-employer relations and for Labor conditions taking into account the political, economic and social policies of the Government and in conformity with the international conventions and other legal commitments to which Ethiopia is a party with a view to translating into practice the objectives referred to above.

### **1.3. Balanced score card (BSC)**

The basic idea of the Balanced Scorecard (BSC) is to focus the organization on performance measures and implementing the current strategy. The BSC comprises measures from financial, customer, internal processes and learning and growth perspectives. The aim is to avoid focusing only on short term financial measures. The BSC enables managers to focus their efforts and to understand the links between the four key areas.

Essentially, the BSC is a management system that enables an organization to identify and clarify its vision and strategy, and translate them into action. It provides feedback around both the internal business processes and external outcomes to improve continuously strategic performance and results.

#### **Balanced Scorecard quadrants**

The Balanced Scorecard consists of four interrelated quadrants, each containing measures for a distinct perspective. These perspectives are:

- financial
- customer
- internal processes
- learning and growth.

These four perspectives are designed to cover the whole of the organization's activities, both internally and externally, current and future.

#### **Uses of the balanced scorecard**

Kaplan and Norton found that companies are using the BSC to:

- clarify and update strategy
- communicate strategy throughout the company
- align unit and individual goals with strategy
- link strategic objectives to long term targets and annual budgets
- identify and align strategic initiatives

- conduct periodic performance reviews to learn about and improve strategy.

#### **1.4. Enterprise bargaining agreements**

##### **Collective agreement**

- “Collective agreement” means an agreement concluded in writing between one or more representative of trade unions and one or more employees or agents or representatives of employers’ organizations.
- Collective bargaining is a crucial form of social dialogue. Its true nature recognizes “the desirability for joint decision making, joint problem solving and joint responsibility in conducting relations between employers and employees.
- “Collective Bargaining” means a negotiation made between employers and workers organizations or their representatives concerning conditions of work or collective agreement or the renewal and modifications of the collective agreement.

##### **Collective bargaining**

- Trade union shall have the right to bargain a collective agreement with one or more employers or their organization in matters provided for in Article 128.
- Employers or employer associations shall have the right to bargain a collective agreement with their workers organized in a trade union.

##### **Representation**

- The following shall have the right to represent workers during collective bargaining.
  - ✓ where there is a trade union, the leaders of the union who are empowered to represent the workers during collective bargaining.
  - ✓ where there is a general trade union who are authorized in accordance with the constitution of the union.
- The persons who represent the employer shall be the concerned employer or employers or those who are delegated by one or more employers’ associations.



**Advisors-** Any bargaining party to a collective agreement may be assisted by advisors who render expert advice during the negotiation.

**Subject matter of a collective agreement-** Matters concerning employment relationship and conditions of work as well as relations of employers and their organizations with workers' organizations may be determined by collective agreement.

**Contents-** Without prejudice to the generality of Article 128 of this Proclamation, the following may inter alia, be determined by collective agreement:

- matters left by the provisions of this Proclamation or other laws to be regulated by collective agreement.
- the conditions for protection of occupational safety and health and the manner of improving social services.
- workers' participation, particularly, in matters regarding promotion, wages, transfer, reduction and discipline.
- conditions of work, the procedure for making work rules and grievance procedures.
- arrangement of working hours and interval break times.

**Registration of Collective Agreement-** Upon executing a collective agreement, the parties shall transmit sufficient copies of the same to the Ministry for registration.

**Accession-** A collective agreement which has already been signed and registered may be acceded to by others.

### **1.5. Concept and definition of reward**

Reward is the generic term for the totality of financial and non-financial compensation or total remuneration paid to an employee in return for work or services rendered at work. Reward can also be termed as compensation or remuneration, is perhaps the most important contract term in every paid employment. Its impact on employee's performance is in most instances highly misinterpreted. The understanding of this term is very important as the incentive scheme given to an employee will influence the behavior and level of engagement to the organization.

**The following are the main aim of reward management:**

- Reward people according to what the organization values and wants to pay for.

- Reward people for the value they create.
- Reward the right things to convey the right message about what is important in terms of behaviors and outcomes.
- Develop a performance culture.
- Motivate people and obtain their commitment and engagement.
- Help to attract and retain the high-quality people the organization needs.
- Develop a positive employment relationship and psychological contract.

Some organizations get more mileage out of a handshake than others do with a big bonus. The difference is in how rewards are administered. Your recognition and reward system will have more impact if you do the following:

- Involve employees in designing the system.
- Determine reward criteria that are both specific and inclusive of all employees.
- Make sure your rewards are in sync with stated company values.
- Recognize behaviors as well as outcomes.
- Individualize rewards give people what they want.
- Say “thank you” a lot.
- Make it your goal to boost workers’ self-esteem and their esteem in the eyes of others.
- Develop an atmosphere that fosters intrinsic rewards.
- Reward the entire team for team accomplishments.
- Develop a rewarding work environment and an enlightened work/life approach so that working for your organization is its own reward.

### **Developing a formal reward system: manager’s checklist**

Before enlisting your employees’ input for creating a reward system, you need to be prepared. Be sure to:

- Identify values, goals, and objectives and determine what outputs from your department would support them.
- Select the best balance between behavior-based and output-based rewards.

- Identify nonnegotiable behaviors. For example, if your unit provides support on demand to customers or another department during specified hours, you may need to screen out or modify any reward criteria that tolerates lateness.
- Establish a budget for the system.
- Consider the degree to which the system should focus on exceptional versus routine tasks. Many reward systems are dedicated to recognizing efforts above and beyond individuals' job descriptions. However, employees are often demotivated because they feel underappreciated for doing their regular jobs.
- Ascertain new behaviors and outputs you want the system to encourage.
- Research successful reward systems in other organizations or in other parts of your organization and determine which elements of those systems would work in your unit.
- Determine the best way to involve employees in the design. Will you get their written recommendations, bring them all together in design meetings, or create a design team of representative employees? If your work unit is small enough, consider involving everyone. If you select a team, make sure it is truly representative of all functions and levels in your unit.
- Establish a schedule for designing the system.

In general, some popular bases for rewards include the following:

- Customer satisfaction
- Work quality
- Problem solving
- Work quantity
- Setting and achieving objectives
- Improving work processes
- Attendance
- Acquiring new skills

Self-check 1	Written test
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Name..... ID..... Date.....

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test II: match the correct answer from column A to column B (4 pts)**

A

1. Reward
2. Collective bargaining
3. BSC
4. Ethiopian Labor proclamation

B

- a. Financial & non-financial compensation
- b. Negotiation b/n employers and workers organizations
- c. Kaplan and Norton
- d. No. 377/2003

**Test II. Give short answer for the following question (5 pts).**

1. List at least three use of BSC.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
2. Notify at least two the main aim of reward.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_

**Note: Satisfactory rating - 7 points**

**Unsatisfactory - below 7 points**

## **Information Sheet 2- Obtaining and explaining Information on employee rights & responsibilities**

Both employees and employers have a range of rights and responsibilities related to the needs of an employee with epilepsy in the workplace. Many of these workplace rights stem from our human rights codes.

### **Employee Rights**

Everyone has a right to equal treatment in the workplace without discrimination because of disability. They also have the right to dignity, privacy and full participation.

### **Employer Rights**

An employer has every right to expect that a person with epilepsy will be productive and safe in the work environment. When considering a person with a disability, they are right to ensure that the candidate has the skills and abilities to get the job done, that the candidate fits in and works well with the team and that this individual is motivated and wants to do a good job.

Any employers in addition to special stipulations in the contract of employment have the following obligations:

1. To provide work to the worker according to the contract of employment.
2. To provide him with materials and implements necessary for the performance of the work.
3. To pay the worker wages and other necessary payments that should be made.
4. To respect the worker's human dignity.
5. To take all the necessary occupational safety and health measures and to abide by the standards and directives given by the appropriate authorities in respect of these measures.
6. To cover the cost of medical examination of the worker whenever such medical examination required.
7. To give the worker, weekly rest days' public holidays and leave.

8. When the contract of employment is terminated or whenever the worker so requests, to provide the worker, free of charge, with a certificate stating the type of work he performed, the length of service and the salary he was earning.

Employee responsibilities are normally expressly stated within the standard contract of employment, but the law states that there are certain duties and responsibilities that owed to an employer by an employee. These commonly include:

- Rendering faithful service to an employer
- Not to compete in business against an employer (whilst still employed by them)
- To obey lawful and reasonable orders (that are consistent with his or her contract)
- To exercise reasonable skill and care in terms of fulfilling their role
- To provide a personal service
- Not to disclose any private or confidential information
- Maintain trust and confidence by behaving in a reasonable manner
- To fully disclose any wrongdoing
- To look after an employer's property if using it

Alongside the more general responsibilities towards an employer, your employee will also have specific obligations in regards to health and safety procedures. These tend to be:

- Taking care of their own health and safety, and that of people who may be directly affected by what they do (or do not do)
- Cooperating with others on health and safety, and not to interfere with, or misuse, anything that has been provided by your business for their health, safety or welfare
- Follow all training that you may have provided them with when using any work items that you have also provided
- Attend any health and safety training that you have deemed relevant to their role
- Report any hazards and defects observed within the workplace

Self-check 2	Written test
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Name..... ID..... Date.....

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test I: give short answer** (3 point)

1. List at least five obligation of employer

a.....

b. ....

c.....

d.....

e.....

2. List four right of employee responsibility.

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

**Note: Satisfactory rating - 5 points**

**Unsatisfactory - below 5 points**



## LG #28

### LO #4- Identify appropriate organizations and Follow Equal Employment Opportunity (EEO) legislative requirements

#### Instruction sheet

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

- Identifying Major meat industry organizations and associations
- Obtaining Information about EEO provisions
- Obtaining and Explaining Information on sexual harassment policies

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

- Identify major meat industry organizations and associations
- Obtain information about EEO provisions
- Obtain and explain information on sexual harassment policies

#### Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below.
3. Read the information written in the “Information Sheets”. Try to understand what are being discussed. Ask your trainer for assistance if you have hard time understanding them.
4. Accomplish the “Self-checks” which are placed following all information sheets.
5. Ask from your trainer the key to correction (key answers) or you can request your trainer to correct your work. (You are to get the key answer only after you finished answering the Self-checks).

## Information Sheet 1- Identifying Major meat industry organizations and associations

Ethiopia has the largest livestock population of any African country, with 53.8 million heads of cattle, 25.51 million sheep, 22.79 million goat, 2.17 million camel and 49.3 million poultry. Livestock are produced in both the highly productive, high rainfall highlands areas and vast lowland areas of the country.

### **Live animal and meat exporters**

There are several live animal exporters operating throughout Central-Eastern Oromia and their number is increasing. They are large-scale traders and feedlot operators who act as the final link in the supply chain between the Ethiopian livestock market and importing countries. In many cases, they come directly from import destinations to Ethiopia, to purchase animals that meet import requirements of their end markets.

The meat processing industry is on the rise in Ethiopia. Municipal slaughterhouses and export abattoirs, butchers and restaurants/hotels play a major role at the processing node.

Meat processing includes the slaughtering of animals (cattle and shoats), the separation of edible parts (meat and offal) from non-edible parts (skin, hoof, horn, etc.), the cutting of the carcass cut in the required form (quarters, deboned, etc.), the packaging and shipping for distribution in the required way (frozen, chilled, smoked, etc.)

commercial slaughtering facilities are the main actors at the processing node. They source their animals from traders or directly through their market agents. Most abattoirs are established for export purposes but there are municipal slaughterhouses that provide service to butchers and retailers for domestic consumption.

Currently, in Central-Eastern Oromia there are 15 export abattoirs (including some under establishment) with a total daily capacity of 66 754 tons of mutton and goat meat, 65 678 tons of beef and 4162 tons of offal.

The Ethiopian Meat Producer-Exporters Association, EMPEA, is a membership organization established in 2003. Ethiopia's export abattoirs are private, state of the art

Halal-certified slaughter houses with livestock reception pens, automatic and semiautomatic mechanical slaughter and processing equipment, chilling rooms, air-conditioned deboning facilities, packaging equipment, freezing facilities, and rendering and effluent treatment.

EMPEA has seven (7) members that are engaged in meat processing and export. There are an additional ten (10) meat export abattoirs that are currently under development and will begin processing in the near future. EMPEA members participate in HACCP and ISO certifications, and regularly work with international experts to ensure that their facilities and procedures meet global standards.

**HAIAT MEAT-** all Ethiopian meat exported to the Middle East is certified by the independent Islamic Affairs Councils accredited by high level international bodies. The Council monitors abattoir operations, ensuring that the animals are slaughtered according to the proper Islamic killing procedures.

**HACCP AND ISO Certified facilities-** many Ethiopian export abattoirs are HACCP certified by third-party international certifying bodies. In addition, an increasing number of Ethiopian abattoirs are becoming ISO 22000 and ISO 9000 certified. EMPEA is working to have 100% HACCP and ISO certification for all Ethiopian abattoirs in the near future.

**HEIMEX Export Abattoir Plc.-** Helimex Export Abattoir Plc is strategically located in the town of Debre Zeit on the cross road to Addis Ababa and Djibouti port both by road and rail. Helimex can supply quickly to its customers by Air & Ship from its high standard abattoir in the country. Helimex has more than 12 years of experience in exporting meat to Middle East countries, and has acquired rich know how in the field. The company has been certified with ISO 22000: 2005 food safety systems. The production capacity of the company ranges up to 2000 sheep/ goat or 150 cattle per day. The company currently exports chilled meat to U.A.E., Saudi Arabia, Yemen and frozen meat to Egypt



**Elfora Agro Industries PLC-** is located at Debre Zeit, Metehara, Melge Wondo, Dire Dawa, Kombolcha and Gondar. Elfora Agro Industries PLC develops the livestock industry by producing through natural and improved practices, high quality live animals on its own ranches, feedlots and quarantine stations. Elfora Agro Industries PLC supplies high quality chilled /frozen beef, mutton and goat meat carcasses, beef cuts, and broiler meat to the export markets. The production capacity of the company ranges up to 2000 sheep/goat or 150 cattle per day. The company currently exports chilled meat to U.A.E., Saudi Arabia, Yemen and frozen meat to Egypt.



**Mojo Modern Export Abattoir Plc-** is one of the leading exporters of chilled sheep and goat meat from Ethiopia. The abattoir is strategically located town of Modjo, about 70 kms South East of Addis Ababa, which is supplied by the three major export livestock producing regions of Oromia, Afar and Somali. The animals are properly conditioned at their holding ground. The company has been certified with ISO 22000: 2005 food safety systems. The production capacity of the company ranges up to 2500 sheep/goat per day. The company currently exports chilled meat to U.A.E. and Saudi Arabia.



**Luna Export Abattoir-** is one of the leading exporters of chilled and frozen sheep, goat, beef, veal and camel meat from Ethiopia. The animals are properly conditioned at Luna's holding ground. The slaughtering process is done by its certified modern export

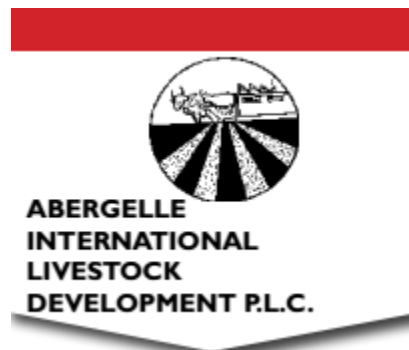
abattoir. The production capacity of the company ranges up to 2000 sheep/goat or 150 cattle per day. The company currently exports chilled meat to U.A.E., Saudi Arabia, Yemen, Congo, Brazzaville and frozen meat to Egypt.



**Organic Export Abattoir-** is a slaughterhouse that belongs to the conglomerate, Lilly Holdings. With a capacity of 2,500 heads of sheep/goats per day, Organic Abattoir is amongst the leaders in the Ethiopian market with export-based activities. The company has been certified with ISO 22000: 2005 food safety systems, which is a testament to our superior quality control and management capabilities. The company constantly strives to provide value added products through both further investments and continuous improvement. Currently under the process of expanding their capacity through a plant that will produce 1,500 heads of sheep/goats as well as 240 heads of deboned beef per day. With their main pillars of focus on quality, focus on their customers and employees they strive to expand their horizons further by entering into new markets.



**Abergelle International Livestock Development PLC (AILD PLC)** - was established to promote livestock development in Tigray Region. Abergelle International livestock development Plc. is one of its kinds in the country state of the art facility and equipment is engaged in the export of beef, mutton and goat meat to the North African and Middle East markets. The plant has a capacity of 900 cattle and 2500 shoats per day. The company operates a large fleet of modern cold trucks.



**Jigjiga Export Slaughter House (JESH) PLC-** is under construction phase and is expected to be completed in July 2014. The Head Office is at Faafan Village near Jigjiga, Ethiopian Somali Regional State, and Eastern Ethiopia. After completion, JESH PLC is expected to export in excess of 560MT of organic chilled mutton per month. Phase II is expected to be completed in mid-2015 and will be exporting about 120MT of organic cut/deboned and frozen beef. Phase III will be completed late in 2015 and will be exporting in excess of 100MT of organic camel meat per week.



**Halal Food Industry PLC-** was established on Oct. 3, 2011 in Addis Ababa, the abattoir is located at Addis Adama express way to Modjo Junction. The abattoir is on final stage of fabrication and machinery testing.



Abyssinia Export Abattoirs is a new facility located in Debre Zeit and ready for operation with a capacity of 1,500 head and 200 heads of shoat and cattle per day respectively



**Ashraf Abattoir**, is engaged in the export of beef, mutton and goat meat to the North African and Middle East markets. The plant has a capacity of 600 cattle and 3,000 shoats per day. The major source of the cattle and shoats are from renowned from different part of the country and they are in high demand in the export markets. The company operates a large fleet of modern Volvo freezer trucks and animal transporters of the highest international standards. The abattoir is environment-friendly: all the by-products are processed and converted into green energy at our Bio-gas plant, thus eliminating any environmental pollution.



**Yongtai Offal Processing PLC-** Yongtai Offal Processing PLC was involved in offal processing using rent house in Bishoftu town. It has annual production capacity of 380-ton offal products. China is the market destination for its products. Since the communities in the area are disturbed by the factory it is transferred to modjo and provided with 1-hectare land. Currently yongtai offal processing factory is under construction, but its land shortage is still serious problem for the enterprise.

**NFA Abusiness PLC-** NFA Abusiness PLC is located in Modjo. It is currently processing offal products using rent house. It has 78-ton annual offal production capacities. The factory exports its products to china. The factory is not provided with land. It has also problems of market destination for its products.



Self-check 1	Written test
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Name..... ID..... Date.....

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test I: short answer**

1. List five export Abattoirs (5 pts).
  - a.
  - b.
  - c.
  - d.
  - e.

**Note: Satisfactory rating - 6 points**

**Unsatisfactory - below 6 points**

## Information Sheet 2- Obtaining Information about EEO provisions

In the legal sense of the equal employment opportunity (EEO) definition, “same chances” or “equal opportunity” means that employers cannot use certain characteristics as reasons to hire or reject candidates or make other employment decisions; in other words, they cannot discriminate against those characteristics. In many countries, protected characteristics include:

- Race / color
- National origin / ethnicity
- Religion
- Age
- Sex / gender / sexual orientation
- Physical or mental disability

EEO doesn't guarantee that people of underrepresented groups will get hired. The purpose of EEO regulations is to make sure nobody will face rejection or difficulties because they're in a protected group.

The principle behind EEO is that everyone should have the same access to opportunities in the workplace. EEO gives all employees freedom to compete on a fair and level playing field with equal opportunity for competition; that is, to advance based on merit. Equality of opportunity is recognized as an essential element of readiness. It is vital in attracting, developing and retaining a top-quality workforce.

Self-check 2	Written test
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Name..... ID..... Date.....

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test I: choose the best answer from the given choice alternatives (2 point)**

**Test II: Short Answer questions (6 pts)**

1. Define equal employment opportunity.
2. List three protected point characteristics of EEO

**Note: Satisfactory rating - 6 points**

**Unsatisfactory - below 6 points**

<b>Information Sheet 3- Obtaining and explaining information on sexual harassment policies</b>
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## **Sexual harassment**

'Sexual harassment' is defined as 'any unwanted or unwelcome sexual behavior which makes a person feel offended, humiliated and/or intimidated where that reaction is reasonable in the circumstance'. Sexual harassment can take various forms. According to our sexual harassment laws, it can involve some or all of the following:

- Suggestive jokes or comments
- Sexually explicit emails or text messages
- Intrusive questions about an employee's private life or appearance
- Unwanted invitations to go out on dates or requests for sex
- Insults or taunts of a sexual nature
- Sexually explicit emails or SMS messages
- Accessing sexually explicit internet sites, magazines or other material
- Behavior which would also be an offence under the criminal law, such as physical assault, indecent exposure, sexual assault
- Stalking or obscene communications
- Any other conduct of a sexual nature.

## **Make a formal or informal complaint**

Approach your direct supervisor, someone you trust such as a work safety representative, or someone from human resources (HR) to discuss the sexual harassment or make a formal complaint and start the resolution process. If possible, you should try and resolve matters at an organizational level before seeking legal action.

## **Speak to the person harassing you**

After seeking advice, if you are able to, speak to the person who is harassing you and explain their behavior is unwanted and it is making you feel uncomfortable. This may be done with or without mediation depending on whether you have made a formal complaint. Sometimes the person does not understand how their behavior is making you feel and addressing that behavior directly may put a stop to it.

## **Proceed with legal action**

If a matter cannot be dealt with through organizational processes, then contacting external parties may be considered. If the sexual harassment continues and your employer cannot or does not help, you can report the behavior to the Anti-Discrimination Board and where there is sexual assault or violence, the police should be consulted.

If you are dismissed as a result of making a complaint, or feel that you had to resign because of the complaint, you may be entitled to lodge a claim under the Unfair Dismissal provisions of the Workplace Relations Acts. You may wish to seek legal advice from an experienced sexual harassment lawyer at this point to help you through the process.

Our bullying and harassment lawyers are able to advise you about your rights in regards to sexual harassment laws, workplace rights and unfair dismissal law, as well as your options to pursuing legal action.

<b>Self-check 3</b>	<b>Written test</b>
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Name..... ID..... Date.....

**Directions:** Answer all the questions listed below. Examples may be necessary to aid some explanations/answers.

**Test I: Short Answer Questions (3 pts)**

1. Define sexual harassment
  
2. List at least four point involved in sexual harassment laws.

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_

**Note: Satisfactory rating - 5 points**

**Unsatisfactory - below 5 points**

## Reference Materials

### Books

1. Meat refrigeration, S.J. James and C.James. Cambridge England

### Websites

- Sensory evaluation of meat and meat products: Fundamental and applications
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