

By-law No. 5 : **Slaughter and Meat Inspection**

Preamble : This By-law does not oblige nor encourage any person to slaughter an animal. It stipulates, however, that if slaughter happens to be done, the rules given shall be followed, in view of the objective stated under paragraph 3 of this By-law.

**Scope**

1. This By-law refers to slaughterhouses not exceeding a capacity of 30 animals slaughtered per day, and to slaughter and meat inspection of ruminants and pigs slaughtered in such slaughterhouses or in the field.
2. Slaughterhouses of larger capacity, and the slaughter and meat inspection effected therein shall not be covered by this By-law, but shall be subject to the full scope of internationally agreed hygienic requirements, as laid down in the relevant FAO/WHO Codex Alimentarius documents.

**Objectives**

3. The purposes of provisions made under this By-law are:
  - a) to protect the health of consumers and meat handlers
  - b) to prevent the spread of animal diseases through meat and offal.
  - c) to improve the hygienic and keeping quality of meat and thus to reduce economic losses from spoilage.
  - d) to provide a reliable market outlet to livestock farmers and thus to hasten the rapid development of the livestock industry.
  - e) to enhance the nutritional and dietary value of meat and meat products'
  - f) to prepare the ground for the development of modernized and internationally competitive national meat industry with future export potentials.
4. It shall be the duty of veterinary meat inspectors to explain these objectives to butchers and meat handlers and to make them aware that the deviations from traditional, practices, as provided for in By-law are reasonable, in the interest of the country, and not simply innovations for innovation's sake.

**Slaughter Animals :** Various prohibitions; origin; transport and reception of animals in the slaughterhouse.

5. It is prohibited to slaughter or to bring to a slaughterhouse
  - a) any male animal which has been officially selected or distributed for reproduction, unless its slaughter is authorized by the DAHO/DVO, because of an incurable disease or advanced age.
  - b) any female animal in productive age, unless the DVO/DAHO has authorized its slaughter because of an incurable disease.
6. It is prohibited to bring to a slaughterhouse any animal which is not in a state of apparent good health, or which originates from a place which is under restriction because of the presence of a notifiable disease.
7. Only animals in apparent good health from non-restricted areas shall be transported to the slaughterhouse. They shall be accompanied by a written statement indicating the owner, or owners during the preceding 6 months and their addresses. Female animals and animals originating from the frontier belt area shall be accompanied by slaughter authorization or movement permit, respectively,
8. During transport, loading and unloading any mistreatment, excitement or exhaustion of the animals shall be avoided. In case of transport

over long distances, the animals shall be given water and rest in reasonable intervals. If vehicles are used, such vehicles shall be thoroughly cleaned and disinfected before and after each use. The animals shall have sufficient space on the vehicle. Animals of different species shall not be transported simultaneously in the same vehicle. It is prohibited to use vehicles which cannot be properly cleaned or which, because of sharp edges or any other specific features are likely to cause traumatic lesions to the animals.

9. Upon arrival of the animals at the slaughterhouse, and prior to admission to the slaughterhouse yards or lairages, the veterinary meat inspector or any other representative of the DAHO/DVO shall:
  - a) examine the statements of origin, respectively slaughter permits for female animals, and movement permits where applicable.
  - b) ascertain by a summary appraisal, whether the animals are in apparent good health, and identical with those described in the documents.
10. Animals which are showing signs of disease, female animals for which no slaughter authorization has been presented, and animals of uncertain origin shall be kept in separate fenced and locked places outside the slaughter house lairages. The DAHO/DVO shall be informed without delay and shall decide upon further action as appropriate. If sick animals are suspected to be affected with a notifiable disease, the provisions of By-law 4 shall apply.
11. Animals which are in apparent good health and accompanied by the required statements or documents shall be admitted to the slaughterhouse lairages and shall be marked so that their identity can be maintained until the termination of post-mortem inspection.
12. Animals which have been on transport for more than 2 hours shall be given at least 6 hours rest before slaughter

**The slaughterhouse : Location, Construction, Operation.**

13. The slaughterhouse shall be located in a place which has been approved by the Ministry of Development, Animal Husbandry Department and which complies with the following requirements:
  - a) the place is not exposed to inundations;
  - b) it can be reached by car at any time of the year, but it is not directly at the margin of a transit highway.
  - c) there is ample supply of drinking water

- d) waste water, slaughterhouse effluents and waste can be disposed off without polluting the environment.
  - e) there is no dust, smoke, odour or any type of industry, dwelling or livestock farm in the immediate vicinity.
  - f) there is electricity available, or a river where electricity can be generated.
14. The slaughterhouse shall be constructed, installed and equipped in such a way that:
- a) it can be efficiently cleaned and disinfected
  - b) there is sufficient space for a proper and hygienic performance of the operations required
  - c) slaughter and inspection can be performed in an orderly manner, with sufficient light and hot and cold water at disposal, efficient drainage, non-slip floors, and separate spaces for the emptying and washing of intestines and stomachs.
  - d) dressed carcasses and edible offal can be removed from the premises without coming in contact with the unclean area of the slaughterhouse.
  - e) bowel and stomach contents, hides and skins, unedible offal and condemned meat can be removed without polluting the premises.
15. Yrads and lairages shall have sufficient space to accommodate the slaughter animals for rest prior to slaughter; they shall be clean and arranged or constructed in a way that they can be kept clean, and disinfected from time to time; there shall be shadow spaces and drinking water supply for the animals; pens and other appropriate facilities shall be available for the performances of ante-mortem inspection.
16. The store rooms for meat and edible offal shall be constructed in a way that they can be efficiently cleaned and disinfected carcasses, sides, quarters, edible offal and cuts should be stored hanging or on clean separated trays, and the store room should be equipped accordingly.
17. In slaughterhouses where the store rooms are refrigerated, there shall also be a pre-chilling room in which the carcasses shall remain during an adequate number of hours before they are brought to the chilling room.

18. In slaughterhouses where more than 10 animals per day are slaughtered, there shall be an over-head railing system, which permits to move the carcasses during slaughter and dressing operations, and then directly to the pre-chilling and store room.
19. Knives and other utensils shall be kept in good conditions and shall be washed frequently during the working day.
20. In the vicinity of the slaughterhouse there shall be a hygienically constructed disposal pit, for disposal of condemned meat. The pit shall be covered with a lid which can be locked and to which only the inspector and his supervisor shall have the key.
21. There shall be separate yards or lairages for the isolation of animals which were retained for further observation at ante-mortem inspection.
22. No animals other than slaughter animals shall be admitted to the premises. In particular, no dogs and cats shall be admitted and effective measures shall be taken for vermin control.

### **Slaughterhouse Personnel**

23. Butchers, meat inspectors and persons directly handling fresh meat shall be free from tuberculosis, enteric or respiratory infections and purulent wounds or skin diseases. Occasional tests shall be made to detect salmonella carriers, for medical treatment. The DAHO/DVO or his representative may request medical examination and eventual suspension until recovery, of slaughterhouse personnel if appropriate.
24. Entry to the slaughterhouse shall be strictly prohibited to unauthorized persons and only persons directly concerned with the operation or inspection of the slaughterhouse shall be admitted.

### **Slaughter**

25. In a slaughterhouse, no animal shall be brought to the slaughter room before the inspector has terminated the ante-mortem inspection and has authorized the slaughter of the animal. In the field, ante-mortem inspection shall be requested through the nearest Police Station, at least 48 hours in advance. Meat obtained from an animal which has not been officially inspected ante and post mortem shall not be allowed to be marketed.
26. Slaughter shall be performed in a way to avoid suffering, pain and excitement. The animal shall be rendered unconscious through an approved method. In slaughterhouse electric stunning equipment shall be used for pigs, and the captive bolt for cattle. Where such equipment

is not available, stunning shall be achieved through a hammer blow on the forehead. Methods of insensibilisation and immobilisation by which the respiration is impeded shall not be permitted.

27. Immediately after stunning, the blood vessels of the throat shall be severed, preferably with the animals' body hanging on its hindlegs, with the head downward. The blood shall be collected in clean containers, to be used for human consumption or animal feeding. In slaughterhouses equipped with over-head railing, the carcass shall be moved to the dressing area immediately after bleeding.
28. Flaying and evisceration shall be performed without delay as soon as bleeding has been completed. Greatest care shall be taken to ensure that:
  - a) any contamination of the carcass and edible offal is avoided.
  - b) the identity of carcass, head, skin, viscera and blood is maintained until the inspector has terminated the post-mortem inspection.
29. It is not permitted to remove any part of the slaughtered animal or to remove or attempt to conceal any lesions before the inspector has terminated the postmortem inspection and applied the official inspection marks.
30. Once the inspection marks have been applied, all edible and non-edible parts of the animal shall be removed from the slaughter and dressing place to their appropriate destinations, in a way to prevent effectively any contamination of the edible products.

**Ante-Mortem and Post-Mortem Inspection.**

31. Ante-mortem and post-mortem inspection in the field and in slaughterhouses shall be performed by a qualified and authorized inspector. The inspector shall be a veterinarian or a person which has received adequate para-veterinary training and education. The Inspector acts officially on behalf of the DAHO/DVO.
32. At ante-mortem inspection the inspector shall proceed as follows:
  - a) The following shall be observed:
    - i) abnormalities and signs of disease;
    - ii) species and behaviour of animals; in sick or suspected diseased animals, notice shall be taken of age, colour and specific markings;
    - iii) cleanliness of slaughter animals.
  - b) particular attention shall be paid to the following details:

- i) manner of standing and movement,
- ii) state of nutrition;
- iii) reaction to environment;
- iv) condition to hide, skin, hair and wool;
- v) digestive system (salivation; rumination, consistency and colour of faeces);
- vi) Appearance of the urinogenital system, including vulva, mammary glands, prepuce and scrotum;
- vii) respiratory system (nostrils, including mucous membranes, nasal discharge, blood tinged froth, quality of respiration)
- viii) Injuries, swelling or oedema
- ix) Body temperature (in suspected or obviously diseased animals).
- x) Blood smear (in case in which a disease is suspected which could be diagnosed by examining the blood.);

33. Based on the results of the ante-mortem inspection, the inspector shall decide;

- a) "Slaughter authorized": if no abnormalities have been found.
- b) "Slaughter under precaution, at the end of the working day": if signs of disease or abnormalities have been found which however do not necessarily preclude approval, or conditional approval of the meat for human consumption, depending on the results of post-mortem inspection.
- c) "condmned" if the animal is found to be affected with Anthrax or another incurable disease, dangerous to human and animal health. In such case the animal shall be destroyed out side the slaughterhouse, in a place and manner to be decided upon by the DAHO/DVO.
- d) "Authorization for slaughter delayed": if the animal is suffering from a curable disease, or has recently calved or aborted or if the temporary state of the animal, such as excitement or exhaustion do not permit a reasonable appraisal of its health status. In such cases the ante-mortem inspection shall be repeated at the appropriate time.
- e) "Slaughter prohibited"; in case of female or breeding animals for which slaughter is prohibited by law.

34. At post-mortem inspection the inspector shall proceed as follows:

A. Inspection of the head:

- a) viewing of the oral and nasal cavity.
- b) palpation and viewing of the tongue
- c) viewing and incision of lymph-nodes, removal of the tonsils.
- d) two parallel incisions in the masseter muscle, and viewing for cysticercosis.

B) **Inspection of viscera**

The following viscera shall be examined:

- a) **Gastro-intestinal tract**: viewing of stomachs and intestines and if necessary palpation. Viewing and if necessary palpation and incision of the mesenteric lymph nodes (*lymphonodi mesenterici*), provided they are not obviously diseased. The oesophagus shall be separated from its attachment to the trachea and viewed.
- b) **Spleen**: viewing of organ, palpation and if necessary incision; if Anthrax is suspected, a smear of the spleen pulp shall be taken.
- c) **Liver**: viewing and palpation of entire organ. The portal lymph nodes (*lymphonodi Hepatici portales*) shall be incised provided they are not obviously diseased. The large bile duct shall be opened up by an incision of at least 3 cm in length, where necessary for reaching a diagnosis one or more incisions shall be made deep enough to open up bile ducts and liver substance. The gall bladder shall be viewed and, if necessary, palpated.
- d) **Lungs**: viewing and palpation of the entire organ. Viewing and incision of bronchial and mediastinal lymph nodes provided they are not obviously diseased. If necessary an incision shall open up the larynx, trachea and bronchil. A transverse incision across the lower part of the diaphragmatic lobe shall open up the bronchil.
- e) **Heart**: Viewing of the heart after the pericardium has been opened. One or more incisions shall be made from base to apex or alternatively the heart may be everted and shallow incisions made to that the cardiac valves and muscle tissue can be inspected:



- f) **Uterus:** viewing, palpation and, if necessary, incision.
- d) **Udder:** viewing of the udder, palpation and incision.  
When the udder has been or is in lactating state incision of the supra-mammary lymph nodes (*lymphonodi inguinales superficiales*).
- h) **Kidneys:** enucleation, viewing and, if necessary, palpation and incision.
- i) **Testicles :** viewing and palpation.

### C. Inspection of carcasses

- a) the carcass shall be examined to ascertain:
  - i) condition
  - ii) efficiency of bleeding
  - iii) colour
  - iv) condition of serous membranes (*pleura and peritoneum*)
  - v) abnormalities
  - vi) cleanliness
  - vii) odours.
- b) The skeletal muscles, including the attached fat and connective tissues, the bones especially those which have been cut and exposed during the splitting of the carcass, the joints, the tendon sheaths, the diaphragm and the pleura and the peritoneum, shall be viewed and palpated. If necessary the triceps brachii muscle may be incised.
- c) The following lymph nodes shall be viewed, palpated and if necessary incised:
  - i) superficial inguinal (*supra-mammary*) (*lymphonodi inguinales superficiales*);
  - ii) external and internal iliac (*lymphnodi iliaci*),  
prepectoral (*lymphonodi cervicales forfundi caudales*);  
renal (*lymphonodi renales*).

In all animals reacting to the tuberculin test and in those carcasses and viscera in which tubercular lesions are found the main carcass lymph nodes shall be carefully examined. Such animals shall be slaughtered under precaution, at the end of the working day, if suspected ante-mortem.

35. Wherever incisions are made, every precaution shall be taken to

prevent contamination of the meat, premises, equipment and personnel, and to avoid any unnecessary mutilation of the carcasses and viscera. Obviously diseased organs and lymph nodes shall not be incised in the slaughter room; but may be removed for detailed examination in the laboratory or other appropriate place.

36. Based on the combined results of ante-mortem and post-mortem inspection, the inspector shall take one of the following decisions:
  - a) Approved for human consumption without any restrictions
  - b) Approved for home consumption under precautions.
  - c) Approved under the condition of heat treatment.
  - d) Approved under the condition of deep freezing or heat treatment.
  - e) Partially condemned
  - f) Totally condemned.
37. If necessary, the carcasses and viscera may be retained for further inspection, in such case as abnormal odour or colour which may possibly disappear within 24 hours or the carcasses and viscera may be retained pending laboratory examination. In such cases the carcasses and edible offal shall remain under the custody of the inspector, separate from approved meat; and under lock.
38. The carcasses and edible offal shall be approved for human consumption and their marketing shall be permitted without any restriction, if
  - a) no sign of disease or abnormality was found which would justify a different judgement, and
  - b) slaughter was performed in accordance with the provisions of this By-law and hygienic rules were observed.
39. The carcass and those viscera which are not altered shall be approved for home consumption, after thorough cooking performed under the supervision of the inspector, if the animal was suffering from an incurable disease which is not transmissible to man such as Haemorrhagic Septicemia, and was slaughtered in a state of acute disease on the premises of its owner.
40. The carcass and those viscera which are altered shall be approved under the condition of heat treatment, if the animal was found to be affected by a disease the causal agent of which can be reliably destroyed by heat, and which did not severely affect the organoleptic properties of its meat, and which does not constitute a serious health

hazard to meat handlers. In such cases, the meat and viscera shall be cut in pieces not thicker than 15 cm and cooked in boiling water during 3 hours, under the supervision of the inspector. The inspector shall give the appropriate instructions to prevent recontamination of the cooked meat. The conditionally approved meat after treatment, may be marketed locally; but not outside the city or village concerned. Its use in restaurants or institutions is prohibited.

41. Meat which is affected by cysticercosis, with a low number of cysts may be approved under the condition of deep freezing at 10° C during 15 days, if the facilities are available. During the time of freezing, the meat remains under the custody of the inspector. If the facilities required are not available such meat shall be treated as indicated under para 40 above.
42. Any visibly altered, infected or parasitized parts of the carcass and viscera shall be subject to partial condemnation. The condemned parts shall be destroyed under the supervision of the inspector, locked in the disposal pit if available or by burning. The inspector shall take every possible precaution to prevent that echinococcus or coenurus cysts are eaten by dogs or other carnivores. In all cases of partial condemnation, those viscera and parts of the carcass which are not visibly affected shall be judged separately according to the nature of the disease involved. They may be approved without restriction in most of the parasitic diseases, and shall be approved under the condition of heat treatment in all cases of infectious diseases, unless para 39 or para 44 applies.
43. If tuberculosis is found in a carcass lymph node, the corresponding quarter of the carcass shall be condemned.
44. The entire carcasses and viscera shall be totally condemned if one or more of the following conditions are found at ante or post-mortem inspection:
  - a) Anthrax
  - b) Blackleg and other clostridial infections
  - c) Rabies
  - d) Salmonellosis
  - e) Gangraena
  - f) Septicaemia and Pyaemia

- g) Generalized tuberculosis
  - h) Severe and generalized oedematosis
  - i) Complete emaciation because of a disease
  - j) Severe organoleptic alterations of the entire muscle tissue, such as severe icterus, repulsive odour, multiple tumours, or pathological degenerations of the muscle tissue.
45. In the case of severe and generalized cysticercosis, without the symptoms of complete emaciation, the entire muscle tissue shall be condemned, the fat however may be approved for human consumption, after melting at 60°C.
46. As soon as the meat inspector has terminated the post-mortem inspection and taken his final decision, he shall apply the inspection marks, in accordance with the instructions given by the Ministry of Development.
47. For the purposes of veterinary food inspection, as provided for under By-law No. 6, the absence of the official meat inspection marks on a carcass or quarter shall be considered as legally valid evidence, that the meat has not been inspected.
48. If a case of notifiable disease is detected at ante-mortem or post-mortem inspection, the inspector shall immediately inform the DAHO/DVO, preferably by telephone indicating the name and address of the owner and all relevant details. The DAHO/DVO shall then without delay investigate whether the disease exists in the place of origin, or whether the infection was contracted during transport, and shall initiate a thorough investigation in all suspected places, informing the Animal Husbandry Department, Ministry of Development.
49. Penalties : The penalty for violation of this By-law shall be a fine of Nu. 100/- upto Nu. 500/- according to the severity of the infraction, and confiscation of the animal or carcass concerned, without compensation. The penalty for repeated violation shall be suspension of the slaughterhouse operation upto 15 days.
50. Fees : The fee for ante-mortem and post-mortem inspection in a slaughterhouse shall be Nu. 5/- per animal, in the field Nu. 1/- per animal.