



11 October 2010

Administrative Order

No. 19

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SUBJECT: GUIDELINES ON GOOD HYGIENIC SLAUGHTERING PRACTICES FOR LOCALLY REGISTERED MEAT ESTABLISHMENTS (GHSP-LRMEs)

Inadequate hygienic practices during slaughtering or carcass handling result in high levels of microbial contamination in the meat, thus a) impacting on public health through the sale of unsafe meat, b) reducing the shelf-life and c) adversely affecting the sensory properties of products fabricated from this raw material. Inappropriate treatment of slaughter animals and poor meat-handling techniques persist in many slaughterhouses. Improper slaughtering techniques such as faulty stunning, bleeding, skinning, evisceration and carcass splitting can damage parts of the carcass and certain by-products and make them unsuitable for further use. These problems are evident in many locally registered meat establishments. Serious short coming with regards to general meat hygiene can be frequently observed. This is to some extent due to the lack of adequate facilities in the slaughterhouses, but carelessness and lack of skills on the part of the personnel involved in slaughtering operations are also important factors.

This guideline is designed to adopt good hygienic slaughtering practices that can be used throughout the slaughter operation to achieve the optimal end-result on the finished product thus producing a clean carcass and reduce the incidence levels of pathogenic contamination. This guideline stresses the importance of knowing that the optimal end-result can be reached based on the slaughterhouse's specific system in-place.

Section 1. SCOPE

This covers hygienic practices at all slaughtering stages of food animals in locally registered meat establishments.

Section 2. OBJECTIVES

- a. To encourage locally registered meat establishments to improve its hygienic production of meat;
- b. To protect consumers by reducing the risk of meat-borne illnesses and other hazards through proper adoption of good hygienic slaughtering practices;
- c. To provide practical information on good hygienic slaughtering practices to persons working in the slaughterhouse such as butchers, offal cleaners, meat inspectors, supervisors, LGU officials and other stakeholders.

Section 3. DEFINITION OF TERMS

For the purpose of this Order the following terms shall mean:

- a. Butcher or slaughterman – a skilled person employed to transform food animals into meat.
- b. Cleaning – the physical removal of soil, dirt, grease or other objectionable matter.
- c. Competent Authority – is the National Meat Inspection Service (NMIS) mandated by law to regulate meat hygiene and meat inspection.
- d. Contaminant – means any physical, biological or chemical substance not intentionally added to food that may compromise food safety or suitability.
- e. Contamination – the introduction or occurrence of a contaminant in food or food environment
- f. Cross Contamination – contamination of meat and meat products with any hazards originating from the environment, meat handlers, animal or carcasses and others.
- g. Disinfection – the reduction of the number of micro-organism in an environment to a level that does not compromise food safety or suitability by means of chemical agents and/or physical methods
- h. Establishment – any building and surrounding area in which food is handled and quality is controlled under one management.
- i. “Floor dressing” – unacceptable practice of progressively preparing the carcass on the floor. The use of unslatted dressing table is also considered as “floor dressing”.
- j. Food Safety – assurance that food will not cause harm to the consumer when it is prepared and/or eaten according to its intended use.
- k. Food Hygiene – all conditions and measures necessary to ensure the safety and suitability of food at all stages of the food chain.
- l. Good Hygienic Slaughtering Practices (GHSP) –all practices regarding the conditions and measures at all slaughtering stages necessary to ensure the safety and wholesomeness of meat and meat products.
- m. Locally Registered Meat Establishments –slaughterhouses, meat processing plants, poultry dressing plants, meat cutting plants and cold storages that are

allowed to operate by the city/municipal government but are not accredited by the NMIS.

- n. Meat handlers –persons directly involved at all stages of slaughtering of food animals to include but not limited to butchers and offal cleaners.
- o. Meat Hygiene – all conditions and measures necessary to ensure the safety and suitability of meat at all stages of the food chain.
- p. Meat Inspector – a professionally qualified and properly trained officer, duly appointed by the NMIS or the local government unit for meat inspection and control of hygiene under the supervision of a veterinarian.
- q. Potable water – water with standards of potability not lower than those contained in the latest edition of the “International/Philippine Standards of Drinking Water”, by the World Health Organization.

Section 4. REQUIREMENTS FOR MEAT INSPECTORS/MEAT BUTCHERS/MEAT HANDLERS

Meat Inspectors and Meat Butchers/Meat Handlers are key players in the production of clean, safe and wholesome meat. They are required to comply with the following:

- a. For Meat Inspectors
 - i. Appointed/designated by the Local Chief Executive;
 - ii. Annual Health Certificate issued by the LGU Physician;
 - iii. Completed Basic Meat Inspections’ Training Course and Preliminary Orientation on GHSP;
 - iv. Registered with the NMIS; and
 - v. Undertakes refresher courses as directed by NMIS
- b. For Meat Butchers/Meat Handlers
 - i. Documentary requirements:
 - 1) Health Certificate issued by the LGU Physician renewed annually;
 - 2) Drug-Free Certificate;
 - 3) Police Clearance; and
 - 4) Barangay Clearance
 - ii. Attended Meat Butchers/Meat Handlers Orientation conducted by NMIS/Provincial Veterinary Office (PVO)/City Veterinary Office (CVO)/Municipal Veterinary Office (MVO) or Municipal Agriculture Office (MAO);
 - iii. Registered with the LGU, which shall in turn submit the registry to NMIS annually; and
 - iv. Complies with the applicable provisions of this Administrative Order

Section 5. PERSONAL HYGIENE

- a. To ensure that all personnel working in the slaughterhouse are healthy and free from transmissible diseases, they shall pass medical examinations before and annually thereafter;
- b. Persons known or suspected to be suffering from, or to be carriers of illness likely to be transmitted through meat, shall not be allowed to enter the slaughterhouse premises;
- c. Meat butchers/meat handlers so affected should immediately report to the slaughterhouse management, illness or symptoms of illness (eg jaundice, diarrhoea, vomiting, fever, sore throat with fever, visibly infected skin lesions (boils, cuts etc), discharges from eye or nose;
- d. Meat butchers/meat handlers must take all necessary steps to prevent the contamination of meat by maintaining a high degree of personal cleanliness that include, but not limited to the following:
 - i. Taking a bath before attending to work;
 - ii. Wearing clean Personal Protective Equipment (PPE) (eg white T-shirts, long pants, head covering and white rubber boots) during work;
 - iii. Keeping nails trimmed, clean and without nail polish; and
 - iv. No wearing of jewelleries/accessories and application of perfumes.
- e. All personnel should be aware and adapt an effective hand washing program including:
 - i. Steps in hand washing:
 - 1) Wet hands with potable water
 - 2) Soap, lather and scrub all parts of the hands, fingers and wrists
 - 3) Rinse and dry
 - ii. Wash hands frequently to prevent contamination of the meat, including but not limited to the following:
 - 1) Before, during and after work;
 - 2) Immediately after using the toilet;
 - 3) After coughing and sneezing;
 - 4) After contact with dirty objects, abnormal animal/carcasses and materials, and animal wastes;
 - 5) Before and after smoking and eating
- f. To prevent contamination inside the slaughtering area, all personnel shall refrain from the following, but not limited to:
 - i. Smoking;
 - ii. Drinking;
 - iii. Spitting;
 - iv. Chewing or eating;
 - v. Sneezing or coughing over carcass;
 - vi. Urinating in the slaughtering area;
 - vii. Loitering and littering

Section 6. ANIMAL WELFARE

Slaughterhouse workers shall properly observe the rules and regulations provided under DA AO No 18 Series of 2008 on Humane Handling in the Slaughter of Animals for Food.

Slaughter animals within the meat establishment shall not be subjected to the following inhumane acts:

- a. Making unnecessary noises;
- b. Kicking the animal in any of its body parts;
- c. Lifting and/or twisting ears and/or tail;
- d. Poking the animal's eye, genital and anal orifice;
- e. Splashing hot water;
- f. Marking/incising the skin of the animal by knife, razor or blade;
- g. Drenching or forced oral administration of water; and
- h. Engaging in other acts inflicting excessive pain

Section 7. TRANSPORT OF LIVE ANIMALS AND LAIRAGE

Consistent with the Animal Welfare Act, the following measures shall be observed during the transport of slaughter animals:

- a. Minimize soiling and cross-contamination with faecal material.
- b. Maintain animal identification and other records as to the place of its origin.
- c. Avoid undue stress and/or risk from injury during loading, unloading and transport.
- d. Separate animals whenever necessary to avoid injury during transport.
- e. Where the transport vehicle or carrier has more than one deck, animals are to be protected from cross-contamination as appropriate.
- f. Maintain adequate ventilation for the animals.
- g. Transport vehicles, and crates used should be cleaned and if necessary sanitized as soon as practicable after animals have been unloaded.
- h. To mitigate the effects of climate change, transport vehicle should have provisions for, but not limited to container with water, truck blanket/cover, and other implements, such as water hose, sprinkler, pail, shovel, whichever is applicable.

Section 8. REQUIREMENTS FOR ACCEPTANCE AND LAIRAGING

- a. All food animals accepted for slaughter shall be accompanied by the following documents:
 - i. Veterinary Health Certificate
 - ii. Certificate of Ownership/Transfer (for large animal)
 - iii. Shipping Permit (for animals transported across provincial boundaries)
- b. The cleanliness of animals has a major effect on the level of microbiological cross-contamination of the carcass and other edible parts during slaughtering and dressing, hence the establishment operator should ensure conditions of lairage that include but not limited to:

- i. facilities are operated in a way that soiling and cross-contamination are minimized;
- ii. animals should be adequately rested and not overcrowded and protected from weather;
- iii. separation of different classes and types of slaughter animals;
- iv. systems to ensure that only animals that are sufficiently clean are slaughtered;
- v. systems to ensure that feed has been appropriately withdrawn before slaughter;
- vi. maintenance of identification of animals (either individually, or as lots, eg poultry) until the time of slaughter and dressing.

Section 9. ANTE-MORTEM INSPECTION

Ante-mortem inspection shall be carried out prior to slaughter. The objectives of ante-mortem inspection are to protect consumers and slaughterhouse personnel from zoonotic and/or meat-borne diseases, to promote animal health by monitoring animal diseases and promote animal welfare practices.

- a. During the ante-mortem inspection, the following shall be observed:
 - i. Ensure that animals for slaughter shall be adequately rested;
 - ii. Abnormalities to look out for are the following:
 - 1) abnormal breathing
 - 2) abnormal behaviour
 - 3) abnormal gait
 - 4) abnormal posture
 - 5) abnormal discharges or protrusion from body openings
 - 6) abnormal color
 - 7) abnormal appearance (conformation)
 - 8) abnormal odor

- b. Only healthy and clean animals shall be allowed for slaughter.

Section 10. HYGIENIC SLAUGHTERING AND CARCASS HANDLING

The main objectives of hygienic slaughtering and carcass handling are: prevent contamination of the carcass and edible by products, inhibit microbial growth on the carcass or meat and reject any carcass or portions thereof that are deemed unsuitable for human consumption. No "floor dressing" shall be allowed during slaughter. Dressing on slatted tables is acceptable but the use of overhead rails is preferred.

Meat handlers shall undertake all necessary steps to prevent carcass and edible by-products from contamination including, but not limited to the following:

a. Showering

Shower the animal to wash off dirt before entering the slaughterhouse.

b. Stunning

Animals must be stunned before slaughter by an appropriate and acceptable stunning method (refer to AO 18 Series of 2008).

c. Sticking and bleeding

- i. Sticking must only be carried out on animals that had been stunned.
- ii. The knife to be used must be clean, sharp and of sufficient length for the species and size of the animal.
- iii. Following sticking, the animal must be completely bled before any further dressing procedure is carried out.

d. Scalding

Scalding is the process of immersing the animals' body or its parts (feet, tail) into hot water (approximately 60°C) to loosen hairs for easy removal.

The following should be observed in scalding:

- i. Potable water shall be used for scalding.
- ii. Scalding water shall be regularly changed before each operation.

e. Dehairing/dehiding

- i. Dehairing and removal of hooves shall be done off-floor and on slatted dehairing tables, not in the scalding tank.
- ii. Dehiding and removal of feet, tail and head of large animals shall be done off- floor by means of cradle or hoist.
- iii. The procedure in the slaughter of small ruminants such as goat or sheep may vary according to cultural preference in the locality. However, hygienic and sanitary practices as required in this Order shall be followed.
- iv. The plucking machine used in the defeathering of poultry shall be properly maintained and kept clean.

f. Evisceration

- i. Prior to evisceration, the esophagus and rectum shall be separated from the surrounding tissues and properly tied.
- ii. During evisceration, edible organs shall be handled hygienically.
- iii. Red offal like heart liver, lungs, spleen and kidney are handled and cleaned separately from white offal like stomach, small and large intestine.
- iv. Meat butchers/handlers shall ensure the proper evisceration to prevent accidental cuts and leaks of intestinal contents which may contaminate the carcass.
- v. Separate equipment for offals, viscera and heads to facilitate inspection shall be provided and maintained clean.

g. Carcass Splitting

- i. If the carcass is to be cut, it shall be done preferably while hanging on rail or on top of clean surfaces.
- ii. Cleaver or axe must be sharp and clean.

h. Final trimming and washing of carcass

- i. Trimming shall be done to remove damaged, soiled or unwanted tissues.
- ii. Abnormal and/or diseased parts should not be trimmed off until they have been seen by an inspector.
- iii. Washing of carcass shall be done to remove the remaining blood on cut surfaces, adhering hairs and unwanted tissues.
- iv. Carcass shall not be smeared with blood or coloring agent.

Section 11. HYGIENIC HANDLING OF BY-PRODUCTS, INCLUDING BLOOD

- a. Blood intended for food shall be collected in a hygienic manner using clean containers and utensils.
- b. Whenever water is used in the preparation of blood, only potable water shall be used.
- c. Wherever possible and practical, a separate area or room shall be provided for the handling, preparation, cleaning, scalding and cooking of offal or by-products.

Section 12. POST-MORTEM INSPECTION

The inspection of carcasses and parts shall be carried out systematically to ensure the detection of lesions and abnormalities. Only meat and edible offal fit for human consumption shall pass inspection.

The following shall be observed:

- a. Without delay after slaughter of animals, post-mortem inspection shall be performed in a hygienic manner;
- b. The premises, equipment and implements are in condition for the hygienic and efficient performance of the inspection;
- c. Use clean and appropriate Personal Protective Equipment (PPE), knives, hook, sharpening steel etc;
- d. Wash hands and inspection tools as often as necessary;
- e. Due care shall be exercised during the post-mortem inspection to avoid contamination of the carcass and edible viscera with any discharges from the digestive and urinary tract; gall bladder, uterus, mammary glands and lesions; and
- f. Meat which has been inspected and passed for food shall be removed from the inspection area without unnecessary delay.

Section 13. CONDEMNED PRODUCTS

In handling of condemned carcasses and/or any of its parts, the following shall be observed:

- a. A leak-free, properly covered and labelled receptacle for condemned material shall be provided.
- b. Condemned materials shall be removed from the area after the operation and disposed of immediately under the supervision of meat inspectors. The meat

inspector shall ensure that all condemned materials are properly accounted for and are disposed of accordingly.

- c. A condemnation pit shall be provided for disposal of condemned material.

Section 14. PROPER MARKING AND ISSUANCE OF MEAT INSPECTION CERTIFICATE (MIC)

Carcasses found to be fit for human consumption shall be properly marked "Inspected and Passed" and issued with Meat Inspection Certificates by the meat inspector. The brands and stamps used to apply the marks of inspection shall be kept clean while in use, and shall be held under the control and supervision of the meat inspector.

Section 15. TRANSPORTATION AND DELIVERY

Meat handlers shall undertake all necessary steps to prevent meat and meat products from being contaminated during transport including, but not limited to the following:

- a. Vehicles used for transport of live animals shall not be allowed for meat delivery/transport.
- b. Meat delivery van shall be used for transporting meat from the slaughterhouse to the market. However, in their absence, other means of conveyance may be allowed provided that carcasses are protected from contamination. Meat delivery van or other conveyances shall be washed and disinfected prior to loading of carcass/meat parts and offal.
- c. If the carcass cannot be transported in hanging position, the meat must be placed and transported in clean containers.
- d. Offal shall be transported in leak proof and properly covered receptacle.
- e. Carcass being transported manually by meat handlers shall be properly protected from contamination.

Section 16. ENVIRONMENTAL HYGIENE

a. Perimeter Fencing

Proper perimeter fencing shall be built to prevent the entry of unauthorized persons and stray animals in the slaughterhouse premises.

b. Garbage Disposal

- i. Solid waste shall be separated from liquid waste to prevent clogging of drain;
- ii. Blood shall be properly collected to reduce waste water;
- iii. All drainage shall always be protected, or properly trapped;
- iv. Trash can/containers shall be properly covered, cleaned, washed and sanitized;
- v. Solid and liquid waste shall be disposed according to Republic Act No. 9003 otherwise known as the Ecological Solid Waste Management Act of 2000 and Republic Act No. 9275 otherwise known as the Clean Water Act; and

- vi. Waste are collected in suitable containers and disposed daily in a sanitary manner.

c. Pest Control

- i. Effective measures to control insects and rodents shall be maintained at all times;
- ii. Breeding places for rodents and other insects shall be eliminated; and
- iii. Pest control chemicals shall be handled and stored properly.

d. Cleaning and Sanitation

The following basic principles shall be considered:

- i. Food grade detergents and sanitizers shall be used to regularly clean and sanitize equipment and facilities before and after slaughtering operations;
- ii. A disinfectant/sanitizer should be capable of killing a wide range of microorganism. Microorganism should not develop resistance to a particular disinfectant;
- iii. A disinfectant should not be toxic to personnel using it, nor should it leave toxic residues which can contaminate meat and meat products;
- iv. Basic cleaning materials (eg scraper, brooms, waterhose etc) shall be provided and used;
- v. The following general cleaning procedures and sanitation shall be applied:
 - a) Cleaning should be done from top to bottom by removing soils/dirts/solids before spraying the walls and floors with water;
 - b) After the initial wash, the walls, floor and equipment are rendered physically clean by brushing with the use of a suitable detergent solution;
 - c) When all equipment have been cleaned, the wall, floor and canal shall be well rinsed with water;
 - d) After rinsing, a solution of disinfectant is applied over the whole area for at least 5 minutes. Personnel doing disinfection should wear protective clothing (ie, rubber boots, gloves and plastic coat); and
 - e) The whole area is rinsed with water.
- vi. To maintain good housekeeping in all areas of the establishment and equipment and utensils therein, the following principles shall be applied:
 - a) There shall be no unserviceable, idle or for repair equipment, litter and waste within and around the establishment;
 - b) Grass and weeds in the premises shall be cut;
 - c) Canals shall be regularly drained; and
 - d) Equipment and utensils that come in contact with meat should be cleaned and sanitized before and after operation or as often as necessary to prevent meat contamination.

Section 17. SAFETY OF WATER SUPPLY

- a. There shall be an adequate supply of potable water to meet the water requirements in the slaughter and cleaning of food animals.
- b. A minimum supply of potable water shall be made available, as follows:
 - i. 227 liters per cattle;
 - ii. 14 liters per swine;
 - iii. 57 liters per goat and sheep;

Section 18. TRAINING

- a. All employees involved in the production of meat shall be trained in personal hygiene, good hygienic practices, cleaning and disinfection procedures, product handling and protection;
- b. Regular and refresher/follow-up training courses shall be part of the overall training program;
- c. Training program shall be routinely reviewed and updated when-ever necessary. A checklist to assess the training program attended by the personnel (criteria, monitoring, corrective action, records) shall be developed by the LGU responsible officer in coordination with NMIS.

Section 19. LABORATORY TESTING

a. NMIS Pathogen Reduction Monitoring Program

- i. This national program shall monitor the presence of disease-causing organisms in meat and determine the level of sanitation in the slaughtering of food animals.
- ii. The local meat inspector upon due notice by NMIS, shall collect water, carcass and equipment swab samples from the slaughterhouse once every semester and submit to the nearest DA NMIS Regional Laboratory/Office.

b. NMIS Veterinary Drug Residue Monitoring Program

- i. This national program shall monitor the presence of banned veterinary drugs in animals slaughtered for food such as Chloramphenicol, Nitrofurantoin, Beta-agonist, hormones like Boldenone, Corticosteroid; and regulated antibiotics with maximum residue limits like Penicillin, Erythromycin, Streptomycin, Tetracycline, Quinolone and others.
- ii. The local meat inspector shall collect the following samples upon due notice by NMIS:
 - One kidney of pig
 - Muscle tissue (250 grams)
 - One urinary bladder with urine content
- iii. Submit collected samples to the nearest DA NMIS Laboratory/office.

Section 20. RECORDS KEEPING

Suitable records shall be maintained, and kept for a minimum period of five (5) years. Records may be required by regulatory officers and should be made available on request. The records shall show the following but not limited to:

- a. Slaughter Report
- b. Condemnation Report
- c. Certificate of Water Potability
- d. Veterinary Health Certificate with description on the point of origin of food animals, name of the farm and farm owner;
- e. Carcass Destination
- f. Details of samples taken and dates of sampling and testing
- g. Details of actions taken following any E coli and/or Salmonella isolations, residues of veterinary drugs detection
- h. Details of employees training

Section 21. PRODUCT INFORMATION AND CONSUMER AWARENESS

- a. LGUs must have a clear Product Information and Consumer Awareness program;
- b. Consumers should know enough about meat hygiene to be able to:
 - i. Understand the importance of meat safety;
 - ii. Make informed choices appropriate acquisition and consumption of meat and meat products;
 - iii. Prevent contamination and growth or survival of foodborne pathogens by proper storage, preparation and utilization of meat.

Section 22. EVALUATION OF PRACTICES

Compliance with hygienic slaughtering practices shall be regularly monitored and evaluated by the PVO.

Section 23. UNANNOUNCED MONITORING

Unannounced visits shall be undertaken by NMIS as the competent authority for verification of compliance.

Section 24. RESPONSIBILITIES

To ensure effective implementation of this Order, concerned entities shall:

- a. Local Government Unit (component City and Municipality)
 - i. Ensure the implementation and/or enforcement of this Order;
 - ii. Coordinate with the Provincial Veterinary/Agricultural Office for technical assistance; and
 - iii. Initiate corrective actions for the improvement of establishments
- b. Provincial and independent/chartered City
 - i. Enforce the provisions of this Guidelines;
 - ii. Train the meat inspectors and meat butchers/meat handlers;

RECOMMENDED BY:


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