Code of Hygienic Practice for Abattoir and Meat Processing Establishment  
(GB/T20094-2006)

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A1 Scope
This code specifies the basic hygienic principles and preliminary production requirements of meats, the design, environmental hygiene, workshop and facilities of butchering and processing enterprises, the hygienic control of butchering and processing, the hygiene of packing, storage, transportation, personnel hygiene, hygienic quality system and its operation and other special requirements.

This code is applicable for the animal butchering factory, meat disintegrating factory, meat product processing factory, meat and meat product refrigerated warehouse, etc that are approved by relevant authority.

A2 Normative references
The clauses from the documents listed below will become part of this document if quoted herein. None of the subsequent modifications (excluding error corrections) or revisions of the documents quoted in this document shall be applicable for this document if such quoted documents are dated. However, all parties that reach an agreement based on this document are encouraged to study the applicability of the latest versions of the quoted documents. The latest version of undated documents that are quoted in this document shall be applicable.

GB5749 Living and Drinking Water Hygienic Standards  
GB16548 Code for Bio-safety Disposal of Carcasses of Livestock and Poultry Dying of Diseases  
GB/T 19538 Hazard analysis critical control point (HACCP) system and its application guide

A3 Terms and definitions
A3.1 Registered Abattoir & Meat Processing Establishment (hereinafter referred to collectively as the enterprises)
Animal butchering factories, meat disintegrating factories, meat product processing factories, meat and meat product refrigerated warehouse, etc that are approved by relevant authority

A3.2 Animal
For the human consumption, animal refers to the domestic or wild mammals and poultries for human eating, e.g. pig, cattle, horse, sheep, deer, rabbit, chicken, duck, goose, pigeon, ostrich, turkey, etc

A3.3 Carcass
The trunk of an animal after bloodletting, unhairing, skinning (or without skinning), beheading, hoof (claw) removal and viscera removal

A3.4 Bio-safety disposal
The method or process to dispose of animals, carcasses, viscera or other animal parts that are deemed as inappropriate for human eating or nonconforming to veterinary hygienic requirements after inspection and quarantine via high temperature, combustion or landfilling.

A3.5 Emergency slaughtering
The slaughtering demanded by the veterinary after an animal is discovered to be physically injured or have severe physiological and functional problems

A3.6 Meat
The edible meats, meat products and edible offal of domestic or wild mammals and poultries

A3.7 Meat product
The products that have meats as the main raw materials and reflect the characteristics of meats (except for canned foods)

A 3.8 Meat hygiene
All conditions and measures to ensure the safety and edibility of meats

A 3.9 Edible offal
The meats except carcass meats

A 3.10 Primary production
The whole procedure of breeding or capturing, transporting and slaughtering animals before the mortem.

A 3.11 Ante-mortem inspection
The inspection that is carried out before animal butchering to judge if the animal is healthy and applicable for human eating

A 3.12 Post-mortem inspection
The inspection that is carried out on the head, body, viscera and other parts of an animal after butchering to judge if the animal is healthy and applicable for human eating

A 3.13 Sanitation standards operating procedure (SSOP)
The operating procedure of the enterprises for the control of production and processing hygiene in order to satisfy food hygiene requirements

A 3.14 Hazard analysis critical control point (HACCP) system
The system to identify, evaluate and control of apparent damage to food safety, i.e. the HACCP-based food safety control system

A 4 Basic principles

A 4.1 Enterprises shall observe the requirements of relevant laws and regulations.

A 4.2 Various parties relating to meat safety and hygiene shall establish a meat hygienic quality control system for the whole process, including primary production, slaughtering, disintegration, meat product processing, packing, storage and transportation.

A 4.3 Enterprise hygienic quality system shall be established and running in accordance with Chapter 11 of this Code.

A 4.4 Enterprises shall execute the remnant substance monitoring/control plan and pathogenic microbe monitoring/control plan compiled by relevant authority and, on such basis, establish their own remnant substance monitoring/control plan and pathogenic microbe monitoring/control plan for all the edible products that they produce.

A 4.5 Enterprises shall be obligated to provide meat hygiene information and assist relevant authority to properly carry out veterinary hygiene and public hygiene work.

A 5 Primary production

A 5.1 It is necessary to effectively control the primary production as per relevant laws, regulations and administrative requirements in order to ensure the conformity of slaughtered animals to relevant food safety requirements.

A 5.2 Primary production safety and hygiene requirements shall at least include:
1) Establish the system for meat hygiene information collection, collation and feedback
2) Carry out epidemic disease prevention and control as per relevant rules.
3) Carry out remnant substance monitoring and control as planned
4) Establish good hygienic practices (GHP) for animal breeding, fodder processing and environment hygiene; actively apply the HACCP system..
5) Establish an animal ID system to ensure the traceability of slaughtered animals.
6) Strictly follow relevant rules during purchasing, processing, storage and transportation of fodders and raw materials in order to avoid biological, chemical and physical contamination.

7) Ensure the identifiability of source and composition of fodders and fodder additives and their conformity to relevant national rules. Please also provide relevant certificates as a proof.

8) Breeding farms shall satisfy relevant veterinary hygienic requirements and carry out production under the supervision of veterinaries; ensure that the disposal of dead animals and wastes will not do any harm to the health of human beings and animals.

9) The use of animal medicines and vaccines shall satisfy relevant requirements of China and the import country.

10) Breeding farms shall establish breeding logs to record animal health conditions, breeding conditions, the use of animal medicines and vaccines as well as the conditions of disinfection.

11) Relevant veterinary authority at the source place shall quarantine animals before shipment and produce a quarantine certificate accordingly.

12) The transport tools of animals shall be cleaned and disinfected in a timely manner and inspected by relevant authority before shipment. The certificate of disinfection shall be produced. Avoid stress reaction of or injury to animals during transportation.

13) Observe relevant rules on animal welfare during primary production, transportation, slaughtering and other procedures.

### A6 Design and environment sanitation of enterprises

#### A6.1
Enterprises shall be located in a place that is far away from contamination source, has a clean and sanitary environment around and does not pose any danger to food hygiene. Other products that may endanger food hygiene shall not be produced and stored on the factory premises. There shall be convenient transportation and sufficient water supply.

#### A6.2
Main roads on the factory premises shall have hardened and even surfaces suitable for vehicle driving (e.g. concrete or asphalt road surfaces, etc). The roads shall be easily washable and hard to pool water.

#### A6.3
The slaughtering workshop shall be furnished with a livestock and poultry pen (zone), suspiciously diseased livestock observation pen, emergency slaughtering workshop and bio-safety disposal facilities; dedicated transportation tools that are sealed and can be easily washed and disinfected shall be provided for diseased livestock (poultry); the locations of suspiciously diseased livestock observation pen and diseased isolation pen shall not cause any risk of infecting healthy animals.

#### A6.4
Washrooms on the premises shall be furnished with flushing, hand-washing, anti-fly, anti-insect and anti-rat facilities. The skirting boards shall be made of light-color, smooth, waterproof and anticorrosion materials that can be easily cleaned.

#### A6.5
There shall be smooth water drainage on the factory premises without pooling of water and wastes. Any waste water and materials created during production shall be disposed of and discharged as per relevant national rules.

#### A6.6
Accessory facilities for the storage of raw materials, accessory materials, chemicals and packing materials that satisfy the production capacity shall be established on the factory premises.

#### A6.7
The factory shall be provided with temporary storage or handling facilities of wastes and rubbish. Wastes shall be cleaned or disposed of in a timely manner to avoid pollution to the factory environment. No stacking of wasted and old equipment and miscellaneous goods is allowed on the factory premises.

#### A6.8
It is not allowed to raise and slaughter irrelevant animals on the factory premises.

#### A6.9
The waiting workshop, slaughtering workshop, disintegration workshop, processing workshop, storage workshop and other workshops of the factory as well as processing procedure shall be arranged reasonably and satisfy hygienic requirements.
A6.10 Bio-safety disposal facilities, boiler room, coal storage, sewage and filth disposal facilities shall be kept at a certain distance away from the slaughtering, disintegrating and meat product processing workshops and storage warehouses and located in the leeward direction of the prevailing wind. The boiler room shall be furnished with smoke and dust removing facilities.

A6.11 The abattoir shall designate separate doors or passageways for the entry of live animals and exit of finished products.

A6.12 The premises of abattoir shall designate dedicated zones and relevant facilities for the cleaning and disinfection of animal transport vehicles.

A6.13 Enterprises shall establish dedicated laundry for the collective management, cleaning, disinfection and distribution of uniforms, caps and shoes.

A6.14 Production and living zones shall be separated from each other.

A7 Workshop, equipment and facilities

A7.1 General requirements on workshop

A7.1.1 Workshop area shall satisfy production capacity. Workshops shall feature a reasonable layout and smooth water drainage; workshop floors shall be made of anticorrosive and nontoxic materials and be skidproof, strong, resistant to water infiltration and pooling, free of leakage and easy for cleaning and disinfection. The floor shall have a gradient of 1% to 2%; slaughtering workshop shall have a gradient of over 2%.

A7.1.2 Shoes and boots disinfecting facilities shall be provided at the entrance to workshops.

A7.1.3 Anti-rat, anti-fly, anti-insect and other facilities shall be provided where water and air enters or leaves the workshop.

A7.1.4 Water drainage system shall have a device to prevent entry of solid wastes. The bottom corner of the drainage ditch shall feature an arc shape for the convenience of cleaning. Drainage pipes shall have a device to prevent emanation of abnormal odors and also anti-rat meshes. The drainage system shall feature a water flow direction from the clean zone to the unclean zone.

A7.1.5 The walls, rooftops or ceilings of workshops shall be made of nontoxic, light-color, waterproof, moldproof, anti-peeling and easily washable materials. Corners of walls, floors and ceilings shall feature an arc shape. Relevant protective measures shall be taken for fixtures, pipelines, wires, etc.

A7.1.6 Interior windows of workshops shall be inclined for about 45 degrees; workshop doors and windows shall be made of light-color, smooth, easily washable, waterproof, anticorrosive and strong materials with a compact structure.

A7.1.7 Separately arrange the zones with different hygienic requirements, i.e. raw material processing, semi-finished product processing, tool and instrument cleaning and disinfection, finished product interior packing, exterior packing, inspection and storage, etc, according to the sequence of process flow and the characteristics of products in order to avoid cross contamination.

A7.1.8 Frozen or refrigerated workshops and their equipment shall be so designed as to avoid contact of carcasses with floors and walls.

A7.1.9 Workshops shall be furnished with ventilating facilities to avoid condensate water on the ceiling.

A7.1.10 Workshops shall be provided with sufficient lighting and the illumination had better not change the original color of processed foods. Inspection positions shall have a lighting intensity of over 540lx; production workshop shall have a lighting intensity of over 220lx; ante-inspection zone shall have a lighting intensity of over 200lx; and precooling workshop, passageways and other areas shall have a lighting intensity of over 110lx. The lighting facilities above the production line shall be furnished with explosion-proof facilities.

A7.1.11 Working procedures or locations that have temperature requirements shall be provided with a temperature indicator. Workshop temperature shall be controlled within the prescribed range according to technical requirements. Precooling workshop/facility temperature shall be controlled between 0 to 4℃; curing workshop temperature shall be controlled below 4℃;
disintegrating workshop and meat product processing workshop temperature shall be controlled below 12°C; freezing workshop temperature shall be controlled not over -28°C; refrigerated warehouse temperature shall be controlled not over -18°C. Meat product processing shall be carried out as per relevant technical requirements.

A7.1.12 Precooling workshop, freezing workshop and refrigerated warehouse shall be furnished with an automatic temperature recorder and a thermometer if necessary. The thermometer and hygrometer shall be regularly calibrated.

A7.1.13 Labels or alarm boards shall be provided at workshop entrances and for other key working procedures.

A7.2 Locker room, hand-washing and disinfecting facilities and washroom facilities

A7.2.1 It is necessary to provide hand-washing hot water (proper temperature) facilities, disinfecting facilities and hand-drying facilities commensurate with production capacity at workshop entrances and in washrooms and workshops. The concentration of disinfecting liquids shall provide good disinfecting effects. Hand-washing water tap shall be opened and closed automatically. The water of hand-washing facilities shall be directly drained into the sewage pipeline.

A7.2.2 Locker rooms, washrooms and shower rooms commensurate with production capacity and connected to workshops shall be provided. Their facilities and layout shall not cause potential contamination to products.

A7.2.3 The doors of washrooms shall be automatically closed; doors and windows shall not open directly to the workshop. Bathrooms shall be provided with ventilating facilities and anti-fly and anti-insect facilities and shall be kept clean and sanitary.

A7.2.4 Independent locker rooms shall be provided for zones with different cleaning requirements. Individual clothes and uniforms shall be separately stored.

A7.3 Processing equipment and facilities inside workshops

A7.3.1 The equipment, tools, instruments and containers inside workshops shall be made of nontoxic, smellless, non-hygroscopic, anticorrosive, antirust, easily cleanable and disinfectable and strong materials. Their structures shall make it easy for disassembly and cleaning. The surface shall be smooth and free of dents and apertures. It is not allowed to use bamboo and wooden tools and instruments.

A7.3.2 Containers shall be clearly labeled or distinguished. Waste containers and edible food containers shall not be mixed together. Waste containers shall be waterproof, anticorrosive and leakage-proof. Pipelines used to transport wastes shall be so constructed, installed and maintained as to avoid contamination to products.

A7.3.3 Processing equipment shall be so located as to make it convenient for installation, maintenance, cleaning and disinfection. They shall be reasonably arranged as per the technical process flow to avoid cross contamination during processing.

A7.3.4 Slaughtering and processing equipment shall be properly commissioned to prevent alimentary canal contents, galls, urines and others from contaminating the carcasses during slaughtering and processing.

A7.3.5 The tools of processing workshops shall be cleaned and disinfected in a dedicated room. Such room shall be furnished with cooling water, hot water, cleaning and disinfecting facilities and good exhaust and ventilating facilities. Each working procedure on the slaughtering line and proper working positions on other production lines shall be furnished with cutter and electric saw disinfecting facilities with over 82°C hot water.

A7.3.6 Each working procedure on the slaughtering workshop and the stomach and intestine workshop as well as proper working positions on other production lines and workshops shall be furnished with mild-water hand-washing facilities

A7.3.7 Pipelines for different purposes in workshops shall be marked and distinguished with different colors and labels.
A7.4 Water supply
A7.4.1 Water supply capacity shall be commensurate with production capacity to ensure sufficient water supply for processing. Processing water (ice) supply shall satisfy the standard GB 5749 or other relevant standards. If self-prepared water supply is used for processing, the water shall be effectively treated and its hygienic conditions monitored and controlled. Enterprises shall have water supply pipeline drawings.

A7.4.2 Enterprises shall regularly test the microbes in processing water (ice) and test remnant chlorine content according to relevant requirements in order to ensure the hygienic quality of water (ice); test the hygienic conditions of water at least twice a year.

A7.4.3 The pipeline of processing water supply shall be furnished with siphon or anti-backflow devices. Do not connect processing water pipeline to non-drinking water pipeline. Label them properly. All the processing water pipes’ outlet should be numbered. The water supply pipes’ outlets should not be put directly into the water surface.

A7.4.4 Water storage facilities shall be made of nontoxic and contamination-free materials and furnished with contamination-preventive measures. It is necessary to regularly clean and disinfect them to avoid cross contamination of processing water.

A7.4.5 Slaughtering, disintegration, processing and bio-safety disposal workshops shall be furnished with a hot water supply system.

A7.5 Special conditions of abattoir
A7.5.1 The slaughtering workshop shall be big enough to guarantee the sufficiency of operations. Do not slaughter different types of animals in the same slaughtering workshop.

A7.5.2 Scalding, dehairing, hair scrubbing, hair burning or skinning shall be carried out separately from slaughtering with a distance of at least 5m or a partition wall of at least 3m thickness.

A7.5.3 Carcasses of slaughtered animals shall be hung up for processing. Such hung carcasses shall not touch the ground.

A7.5.4 The same working procedure shall be provided with sufficient spare tools and instruments (e.g. cutters, etc) for the sake of alternative disinfection.

A7.5.5 A rail dedicated for suspiciously diseased carcasses shall be reserved where proper inside the livestock slaughtering workshop for the further inspection and diagnosis thereof. Independent spaces or zones that are separated from surrounding zones shall be provided where proper in the freezing workshop or refrigerated warehouse for the temporary storage of suspiciously diseased carcasses or organs at a low temperature.

A7.5.6 Sufficient space shall be reserved in the workshop for the convenience of post-mortem inspection.

A7.5.7 Pig slaughtering workshop shall be furnished with a trichina inspection room with relevant inspection facilities.

A7.5.8 Dedicated processing workshop of hearts, livers, lungs and kidneys, stomachs and intestines as well as heads, hoofs (claws) and tails shall be provided. The area of each edible offal workshop shall be commensurate with the production capacity and its facilities shall satisfy relevant hygienic requirements. The technical process flow shall be so reasonably arranged as to keep dirty and clean zones separated and avoid cross contamination.

A7.5.9 The design, installation and operation of stomach and intestine processing equipment shall be able to effectively avoid contamination of the products. It is necessary to install ventilating devices to prevent and eliminate abnormal smells, steams and vapors. The equipment shall have devices for the enclosed drainage of stomach and intestine contents and waste water. The discharged and cleaned stomachs and intestines shall be transported in a sanitary way.

A7.5.10 Stomach and intestine product shall have dedicated precooling and packing workshops.

A7.5.11 A dedicated zone shall be provided for the temporary storage of stomach and intestine contents and other waste materials, e.g. skin, hair, horn, hoof, etc shall be kept in a dedicated storage room if they can’t be directly transported out in a sealed container on the same day.
A7.5.12 Enterprises shall have their veterinary offices where relevant inspection and office facilities shall be provided.

A7.6 Special conditions of meat product factories (workshops)

A7.6.1 Raw meats and finished product storage room or freezing workshop and dedicated accessory storage room that are commensurate with production capacity shall be provided.

A7.6.2 Raw meat unpacking room, defreezing room, cutting room, accessory material room, curing room, cooking room, cooling room and packing room that have different cleaning and hygienic requirements shall be separately arranged. The production flow shall satisfy relevant hygienic requirements in order to ensure food safety and hygiene.

A7.6.3 Meat product cooking, frying, baking and smoking facilities shall have proper smoke exhaust and ventilating devices overhead.

A7.6.4 Thermally processed meat products shall be furnished with the devices to monitor heating medium temperature and product core temperature.

A7.6.5 Thermal processing shall be carried out in an independent workshop with the processing of cooked and uncooked meats strictly separated.

A8 Hygienic control of slaughtering process

A8.1 Ante-mortem inspection

A8.1.1 Slaughtered animals shall come from areas without epidemic diseases and satisfy the requirements of the Chapter 5 of this Code. They shall also have relevant Animal Quarantine certificate and transportation vehicle disinfection certificate. Slaughtering enterprises shall not accept animals that die during transportation, animals with infectious diseases, animals that are suspicious of infectious diseases or animals whose source is unidentifiable or certificates are incomplete.

A8.1.2 Slaughtered animals shall be subject to ante-mortem inspection as per relevant national requirements. Information relating to primary production shall be considered for ante-mortem inspection, e.g. breeding conditions, animal medicine dosage and epidemic disease prevention. It is also necessary to visually observe the animals, e.g. animal behaviors, shape, physical conditions, skin surface, excrements, odor, etc. Animals with abnormal symptoms shall be isolated for observation, temperature measurement and further checkup by veterinary. Carry out lab tests if necessary.

A8.1.3 Animals that are judged as inappropriate for slaughtering shall be disposed of as per relevant veterinary rules.

A8.1.4 Provide timely feedbacks on the ante-mortem inspection to the breeding farm and post-mortem inspectors and keep a good ante-mortem inspection record.

A8.2 Post-mortem inspection

A8.2.1 Carry out post-mortem inspection of animal heads, hoof (paw), carcasses and viscera as per relevant national rules, procedures and standards.

A8.2.2 Utilize primary production, ante-mortem inspection data and post-mortem inspection results to judge if the meats are proper for human eating.

A8.2.3 When the sensory inspection can’t be used to judge the edibility of meats, further inspection or testing is required.

A8.2.4 Meats or other parts of animal which shall receive the innocuous treatment after the post-mortem judgment shall be treated according to the point 8.8 of this code. Waste meats or other parts of animals shall be properly labeled and disposed of to avoid cross contamination with other meats. Please keep a proper record of the waste disposal.

A8.2.5 In order to ensure full execution of post-mortem inspection, the veterinary in charge shall be entitled to slow down or stop the slaughtering process.

A8.2.6 Please keep a proper record of post-mortem inspection and analyze the post-mortem inspection results in a timely manner. Then make a summary and report to relevant inspection and
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quarantine authority and give feedbacks to the breeding farm.

A8.3 Hygienic control of processing

A8.3.1 It is necessary to take proper measures to prevent carcass, organ, body liquids (e.g. gall, urine, milk, etc) as well as stomach and intestine contents from contaminating other meats, equipment and sites. Contaminated equipment and sites shall be cleaned and disinfected under the supervision of the veterinary before slaughtering of healthy animals is allowed.

A8.3.2 Processing personnel shall follow standard operating procedures to avoid contamination of meats by animal viscera and skin surface pollutants.

A8.3.3 Carcasses or products that are contaminated by liquids, exudates, pathogenic organs, body liquids, stomach and intestine contents and other pollutants shall be disposed of, removed or abandoned as per relevant requirements.

A8.3.4 Tools and instruments (e.g. product containers, cleaning water pipes, etc) used during processing shall not drop onto the ground or touch unclean surfaces in order to avoid cross contamination. If they fall onto the ground, measures shall be taken in a timely manner to avoid contamination.

A8.3.5 It is necessary to inspect the contamination conditions of meats at certain work positions in order to avoid contamination by various types of pollutants.

A8.4 Tool and instrument cleaning and disinfection

A8.4.1 Certain tools, instruments and equipment used for livestock slaughtering and inspection, e.g. slaughtering and dehorning equipment, head inspection cutter, breast cutter, visceral trays, etc, shall be sterilized with hot water at a temperature of over 82°C after each inspection.

A8.4.2 It is necessary to clean and disinfect workshop facilities and equipment before and after work. Regularly sterilize tools, instruments, operating table and processing surfaces in contact of foods. Measures shall be taken to avoid product contamination during cleaning and sterilization.

A8.5 Temperature control

The carcass should be cooled immediately after slaughtering. The core temperature of livestock meats, poultry meats and edible offal shall be kept below 7°C, 4°C and 3°C respectively during disintegration, deboning and packing. Processing, disintegration, deboning and other operations shall be carried out as quickly as possible so that the products can be kept at the required temperature. Lower the core temperature of meats below -15°C within 48 hours during the production of frozen meats and then transfer them into the refrigerated warehouse.

Monitor the heating medium temperature and product core temperature of thermally processed meat products and keep a proper record.

A8.6 Hygienic requirements on raw materials and accessory materials of meat products

A8.6.1 Raw meats shall come from registered butchering and processing enterprises. They shall have relevant quarantine certificates and transportation vehicles disinfection certificates to be subject to an acceptance inspection.

A8.6.2 Imported raw meats shall come from overseas meat manufacturers registered in China and have the copies of relevant inspection and quarantine certificates issued by the official veterinary authority of the export country (region) and the entry cargo inspection and quarantine certificate issued by relevant inspection and quarantine authority at the port of entry.

A8.6.3 Raw meats shall be defrozen by way of natural defreezing, sprinkling defreezing and flow water defreezing. Use flow water cleaning tools and instruments to avoid cross contamination.

A8.6.4 Accessory materials shall have relevant inspection certificates and be subject to an acceptance inspection before they are allowed for use. It is necessary to strictly follow relevant national requirements to purchase and use food additives.

A8.6.5 Raw and accessory materials whose shelf life has expired shall not be used for production and processing.

A8.6.6 Raw materials, accessory materials, semi-finished products and finished products shall be stored
separately and uncooked and cooked products shall be stored separately in order to avoid contamination.

A8.7 Disposal of unqualified products and wastes

Unqualified products and wastes that are created during processing shall be collected separately in apparently labeled dedicated containers at a designated place and disposed of in a timely manner under the supervision of inspectors. The containers and transport tools shall be cleaned and sterilized in a timely manner.

A8.8 Bio-safety disposal

A8.8.1 Carcasses and other organs of animals that are found or suspicious to have infectious diseases, verminosis or toxicosis shall be deposited in a dedicated container and transported with a dedicated vehicle in a timely manner and disposed of as per GB16548.

A8.8.2 Other animals and animal organs that are deemed by the veterinary as necessary to be subject to bio-safety disposal shall be disposed of with dedicated facilities under the supervision of veterinary.

A8.8.3 Enterprises shall take relevant protective measures to avoid cross contamination and environment pollution during bio-safety disposal.

A8.8.4 Enterprises shall keep a proper record of bio-safety disposal.

A8.9 Control of toxic and harmful substances

The storage and use of toxic and harmful substances shall be strictly managed. Ensure the effective control of such toxic and harmful substances as detergents, disinfectants, pesticides, fuels, lubricants and chemical reagents used in the factory, workshops and laboratory in order to avoid cross contamination of meats.

A9 Packing, storage and transport hygiene

A9.1 Packing

A9.1.1 Packing materials shall satisfy relevant hygienic standards. They shall not contain any toxic or harmful substances, nor shall they change the sensory characteristics of meats.

A9.1.2 Packing materials shall have sufficient strength to prevent any damage during transport and carriage.

A9.1.3 Packing materials of meats shall not be recycled unless the packing is made of easily washable and anticorrosive materials and subject to washing and disinfection before use.

A9.1.4 Interior and exterior packing materials shall be kept in separate warehouses. Packing material warehouse shall be dry, well ventilated, clean and sanitary.

A9.1.5 Product packing workshop shall satisfy relevant requirements on temperature.

A9.2 Storage

A9.2.1 The temperature of storage workshop shall satisfy the requirements on meat storage.

A9.2.2 The storage workshop shall be kept clean, neat, tidy and well ventilated and free from any goods that may affect hygienic conditions. The same storage workshop shall not contain foods that may cause cross contamination. Moldproof, anti-rat and anti-insect facilities shall be provided and disinfection shall be carried out on a regular basis.

A9.2.3 Goods kept in the storage workshop shall be kept at a distance of at least 30cm from walls, at least 10cm from floors and a certain distance from ceilings. They shall be sorted and stacked up with clear labels.

A9.2.4 The freezing warehouse shall be defrosted on a regular basis.

A9.3 Transportation

A9.3.1 Meat transportation needs dedicated vehicles. Meat transport tools shall not be used to carry live animals or other goods that may contaminate meats.

A9.3.2 Packaged and exposed meats shall not be transported in the same vehicle unless physical
isolating and protective measures have been taken.

A9.3.3 Transport tools shall satisfy relevant hygienic requirements. Freezing and heat-preserving facilities shall be provided according to product features. A proper temperature shall be kept during the transport.

A9.3.4 Transport tools shall be cleaned and disinfected in a timely manner so that they can be kept clean and sanitary.

A10 **Hygienic requirements on personnel**

A10.1 Personnel engaging in meat production, processing, inspection and management shall pass a medical checkup before they can start work. They shall undergo a regular medical checkup once a year and temporary medical checkup if necessary. Those who have diseases that may affect food hygiene shall be relocated to another work position.

A10.2 Personnel engaging in meat production, processing, inspection and management shall keep clean and never take unrelated products into the workshop; they shall not wear jewelry, watch and cosmetics; they shall wash and disinfect hands before entering the workshop, wear uniform, cap and shoes at work and take off such uniform, cap and shoe before leaving the workshop.

A10.3 Personnel working in zones or positions with different hygienic requirements shall wear uniforms and caps of different colors or logos for the sake of distinguishing. Nobody is allowed to enter any zone other than the one he/she is working in.

A10.4 Enterprises shall recruit a sufficient number of veterinaries and inspectors. Personnel engaging in slaughtering, meat processing, inspection and hygienic control shall have corresponding qualifications, receive professional trainings and pass relevant tests before they are allowed to start work. Personnel engaging in ante-mortem and post-mortem inspection shall also possess corresponding professional knowledge and ability of a veterinary.

A11 **Requirements on hygienic quality system and its operation**

A11.1 Enterprises shall establish and effectively execute a hygienic quality system and compile documents to guide the execution of the hygienic quality system. It shall make and execute an HACCP plan according to GB/T19538. Enterprises shall do the following to make and execute the HACCP plan:

1) Make and effective execute the basic plan

2) Full consider the types of slaughtered animals and the expected use of meat products during harm analysis

3) Ensure the operability and compliance with relevant laws, regulations and standards of the key limits and operating limits.

4) Fully consider the verification frequency of HACCP plan and carry out sample test in the lab if necessary.

5) Fully consider the validity of HACCP plan to ensure the safety and hygiene of meats and meat products.

A11.2 The top management of enterprises shall clarify the hygienic quality policies and goals of enterprises and establish an organ and provide sufficient resources to ensure the effective execution of the hygienic quality system.

A11.3 Enterprises shall have an inspection organ commensurate with its production capacity. Such inspection organ shall be furnished with the methods, standard materials, inspection facilities, instruments and equipment as well as a well-established internal management system necessary for the inspection work in order to ensure the accuracy of inspection results. The original records of inspection shall be kept. If the test and inspection work is subcontracted to an external lab, such subcontractor shall have corresponding qualifications. The subcontracted tests and inspections shall satisfy the daily hygienic monitoring, control and inspection needs of enterprises.

A11.4 The metering instruments and equipment necessary for product processing and inspection as well as proper operation of hygienic quality system shall be verified as per relevant requirements.
Calibration is needed before use.

A11.5 Enterprises shall make written SSOP procedures, clarify the responsibilities of executives, determine the executing frequency, carry out effective monitoring and control and take relevant corrective and preventive measures. SSOP shall contain at least the following:

1) Water and ice that contacts meats (including raw materials, semi-finished products and finished products) or articles that touch meats shall satisfy relevant safety and hygienic requirements;

2) Devices, gloves and interior and exterior packing materials that contact with meats must be clean, hygiene and safe;

3) Avoid cross contamination of meats

4) Ensure the cleaning and disinfection of operator hands and keep the cleanness of washroom facilities;

5) Prevent lubricants, fuels, cleaning and disinfecting articles, condensate water and other chemical, physical and biological pollutants from endangering the safety of meats.

6) Correctly label, store and use various types of toxic chemical substances.

7) Ensure the physical health and sanitation of personnel who are in contact with foods.

8) Eliminate and prevent rats and insect pests.

A11.6 Enterprises shall make and execute the hygienic control procedure of raw materials, accessory materials, semi-finished products, finished products and production process as well as processing and inspection operating regulations and keep a proper record thereof.

A11.7 Enterprises shall make and execute the maintenance procedure of processing equipment and facilities, avoid contamination of products and ensure that processing equipment and facilities satisfy production and processing needs.

A11.8 Enterprises shall make a execute nonconforming product control procedure and specify the identification, recording, assessment, isolation and traceability of nonconforming products.

A11.9 Enterprises shall establish a system of identification, tracing and callback so that the traceability and timely withdrawal of products can be guaranteed when meats and their products have unacceptable risks.

A11.10 Enterprises shall make and execute a staff training plan and keep a proper training record in order to ensure personnel of different positions can master the knowledge and skills on meat safety and hygiene.

A11.11 Establish an internal review system, carry out one internal review at least half a year and management review once a year and keep a proper record thereof.

A11.12 Enterprises shall make and execute a quality record management procedure for the marking, collection, cataloging, filing, storage, custody and disposal of quality records. All records shall be accurate, standard and traceable and kept for at least two years.

A12 Special clauses

For products that must be manufactured and processed as per traditional techniques or religious customs, it is necessary to follow such traditional techniques or religious customs provided that meat safety and hygiene is ensured.