

**National Standard of the People's Republic of China**

**GB 12694—2016**

---

**National Food Safety Standards**

**Hygiene Standard for Slaughtering and Processing**

**Livestock and Poultry Products**

Issued date: Dec 23, 2016

Implementation date: Dec 23, 201

7

---

Issued by National Health and Family Planning Commission of the People's Republic of China and China Food and Drug Administration

## Foreword

This national standard shall replace GB/T 12694-1990 Hygiene Standard for Meat Products Processing Plant, GB/T 20094-2006 Hygiene and Management Standard for Slaughtering and Processing Enterprises and GB/T 22289-2008 Technique Standard for Chilled Pork Processing.

The main technical differences between this national standard and the national standards numbered GB/T 20799-2014, GB/T 21735-2008 and SB/T 10395-2005 are:

——The title of the standard is revised into “National Food Safety Standards Hygiene Standard for Slaughtering and Processing Livestock and Poultry Products”;

- The structure of this standard is modified and recombined;
- Partial terms and definitions are revised;
- The content of requirements for plant location selection, plant environment, plant and workshop, facility and equipment, as well as the management requirements for hygienic control and operation are modified and recombined;
- The content of the requirements for product tracing and recall is added;
- The content of the requirements for recording and file management is added.

**National Food Safety Standards**

**Hygiene Standard for Slaughtering and Processing**

**Livestock and Poultry Products**

**1 Scope**

This national standard specifies the basic requirements for places, facilities and personnel during production chain including acceptance, slaughtering, segmentation, package, storage and transportation, etc., and the management requirements for hygienic control and operation thereof.

This national standard is applicable to the slaughtering and processing enterprises above designated size.

**2 Terms and Definitions**

The terms and definitions stipulated in GB 14881-2013 are applicable in this national standard.

**2.1 Slaughtering and Processing Enterprises Above Designated Size**

Slaughtering and processing enterprises above designated size refer to the enterprises with an annual slaughtering amount above 20,000pigs, 3,000cattle, 30,000sheep, 2 million chickens, or 1 million ducks or geese.

## **2.2 Livestock and Poultry**

Livestock and poultry refer to the farm and livestock animals for human consumption.

## **2.3 Meat**

Meat refers to the meat that is edible, or all the products coming from the livestock and poultry that are determined to be safe and edible, including carcass, segmented meat and edible by-products.

## **2.4 Carcass**

Carcass refers to by-product of the animal body that is processed after bloodletting, dehairing, peeling or otherwise, decapitation, feet-removal and gutting.

## **2.5 Edible By-products**

Edible by-products refer to the processed products including internal organs, grease, blood, bones, skin, heads, feet and tail, etc. that are edible.

## **2.6 Inedible By-products**

Inedible by-products refer to the processed products including fur, hair, horns, etc. that are inedible.

## **2.7 Inspection prior to Slaughtering**

Inspection prior to slaughtering refers to the group and individual check of the livestock and poultry before slaughtering to comprehensively determine whether the animals being checked are edible and safe for human consumption.

## **2.8 Inspection after Slaughtering**

Inspection after slaughtering refers to the check of the head, carcass, internal organs and other parts of the livestock and poultry after slaughtering to comprehensively determine whether the animals being checked are edible and safe for human consumption.

## **2.9 Unclean Section**

Unclean section refers to the section designated for temporary placing before slaughtering, stunning, bloodletting, dehairing and peeling, etc.

## **2.10 Clean Section**

Clean section refers to the sections designated for carcass processing, finishing, cooling, segmenting, temporary storage and package, etc.

## **3 Location Selection and Environment of the Plant**

### **3.1 General Requirement**

The location selection and environment of the plant shall comply with the provisions stipulated in Chapter 3 of GB 14881-2013.

### **3.2 Location Selection**

**3.2.1** The hygienic protection distance shall comply with the provisions stipulated in GB 18078.1 and the requirements for animal epidemic prevention.

**3.2.2** Good environment and hygienic conditions are required surrounding the plant. The plant shall be away from contaminated waters, industries and enterprises causing pollution including noxious gas, smog and dust, etc., and areas or places being the source of pollution.

**3.2.3** The local conditions and production technique shall be taken into consideration in selecting the location of the plant. The plant shall be equipped with water and electricity supply as per related requirements, and comply with the planning requirements of slaughtering enterprises.

### **3.3 Plant Environment**

**3.3.1** The main road in the plant shall be hardened (using concrete or bitumen, etc.), level, easy to be washed and cleaned, and not result in ponding.

**3.3.2** Facility for the purpose of temporary storage or treatment for waste and garbage is required in the plant. The waste shall be removed or processed in time to avoid contamination. Piling of waste equipment and other sundries is prohibited in the plant.

**3.3.3** Storage and treatment of the waste shall comply with the state environment protection requirements.

**3.3.4** Animals not being used for the purpose of production shall not be kept or slaughtered in the plant.

## **4 Plant and Workshop**

### **4.1 Design and Layout**

**4.1.1** Plant shall be divided into two areas: production area and non-production area. Separate gate and enclosures shall be used for the transportation of finished products and living livestock and poultry and waste.

**4.1.2** Layout and facility of the workshop in the production area shall meet the hygienic and technological requirements. Clean section and non-clean section in the workshop shall be separated.

**4.1.3** The floor area and building facilities of workshop for slaughtering and segmenting shall be equivalent to the production scale. Each section in the workshop shall be divided clearly as per the processing flow, be free from the disturbance between personnel and materials flow, and comply with the requirements of hygiene, technology and the quarantine inspection.

**4.1.4** Temporary storage zone before slaughtering, isolation room, emergency slaughtering room, laboratory, room for official veterinarian, storeroom for chemicals and harmless treatment room are required in the slaughtering plant. The designated area and facility for the cleansing and disinfecting of the vehicle used for the transportation of livestock and poultry and products is required.

**4.1.5** Qualified and professional harmless treatment plant shall be authorized to complete the duty in the case that the plant is not equipped with harmless treatment facility.

**4.1.6** Processing workshop for edible and inedible by-products shall be set up separately. The floor area of the workshop for edible by-products shall be equivalent to the slaughtering and processing capability, with appropriate facility and equipment as per hygienic requirements. The layout for the processing flow shall be designed to separate different sections to avoid cross contamination.

## **4.2 Interior Structure and Building Materials**

Interior structure and building materials shall comply with the provisions stipulated in paragraph 4.2 of GB 14881-2013.

## **4.3 Workshop Temperature Control**

**4.3.1** The temperature of the workshop shall be kept within required limits as per the processing requirements of each product. The temperature of the pre-cooling facility shall be kept between 0 to 4 degrees Celsius; the

segmentation workshop below 12 degrees Celsius; the frozen room below minus 28 degrees Celsius; and the refrigerated storeroom below minus 18 degrees Celsius.

**4.3.2** Temperature display device is required for all processes or places in need of a certain temperature requirement for the purpose of temperature monitoring and control. Hygrometer is required if necessary. Thermometer and hygrometer shall be adjusted and corrected on a regular basis.

## **5 Facility and Equipment**

### **5.1 Water Supply**

**5.1.1** Production water supply for slaughtering and segmenting workshops shall comply with the requirements stipulated in GB 5749. The quality of the water supply shall be controlled.

**5.1.2** Cold and hot water pipes are required at the designated position in the slaughtering and segmenting workshops as per related processing requirements. Water used for cleansing shall not be below 40 degrees Celsius, and for disinfecting shall not be below 82 degrees Celsius.

**5.1.3** Cold and hot water pipes are required in the emergency slaughtering room and harmless treatment room.

**5.1.4** Anti-siphon device and backflow preventer are required in the pipes used for production water supply. Water outlet of the water supply network shall not contact the sewage directly.

### **5.2 Water Drainage**

**5.2.1** Ponding is prohibited in the slaughtering and segmenting workshops. The drainage flow shall be from the clean section to the unclean section.

**5.2.2** Grating made from materials that are not easy to corrode is required at the outfall of the open trench, together with the rat-proof and deodorization facility.

**5.2.3** Industrial wastewater shall be treated in a centralized manner. The wastewater discharge shall comply with the state related regulations.

### **5.3 Cleansing and Disinfecting Facility**

**5.3.1** Cleansing and Disinfecting Facility in the Changing Room, Hand-washing Room and Restroom

**5.3.1.1** Hand-washing facility with proper water temperature, disinfection and hand drier facility being equivalent to the production capacity are required at the entrance, restroom and proper places of the workshop. Non-manual switch is required for hand-washing facility. The water drainage shall be linked directly to the sewer line.

**5.3.1.2** Changing room, restroom and shower room being equivalent to the production capacity and linked with the workshop are required. The facility and layout thereof shall not cause potential risks of contamination to the products.

**5.3.1.3** Sections with different degree of cleanliness requirements shall be equipped with separate changing rooms. Private clothes and work clothes shall be kept separately.

**5.3.1.4** The structure, facility and interior building materials of the shower room and restroom shall be easy to clean and disinfect. The restroom shall be equipped with exhaust and ventilation facility, as well as flies and insect prevention facility, and be kept clean. The rest room shall not be directly linked to the workshops for slaughtering, package and storage, etc. An automatic door is required in the rest room. The door and window of the restroom shall not face the workshop.

### **5.3.2** Cleansing and Disinfecting Facility in the Plant and Workshop

**5.3.2.1** Disinfecting tank with a dimension of 4 meters in length, above 0.3 meters in depth and the width of the door is required at the entrance of the gate designated for the entering and leaving for vehicles used for livestock and poultry transportation. Facility for shoe-changing (to wear shoe covers) or disinfecting facility for work shoes and boots is required at the entrance and the necessary places of the workshop; the dimension thereof shall meet the disinfecting requirements.

**5.3.2.2** Disinfecting facility for vehicle wheels, shoes and boots is required at the entrance of the isolation room and harmless treatment room.

### **5.4** Equipment and Appliance

**5.4.1** Production equipment being equivalent to production capacity is required, and shall be placed as per the processing flow to avoid cross contamination.

**5.4.2** Equipment, appliances and containers that have surface contact with

the meat shall be made from the materials that are non-poisonous, tasteless, non-absorbent, corrosion resistance, not easily deformed, not easily peeled off, re-washable and re-disinfectable. Such materials shall not react with the meat, detergent and disinfectant under the normal conditions, and shall remain complete and in a good condition. Appliances and containers made from bamboo and wood shall not be used.

**5.4.3** The processing equipment shall be installed at a place that provides availability and convenience for maintaining, cleansing and disinfecting to avoid cross contamination.

**5.4.4** The container for waste shall be made from metal or materials that are non-penetrable. It is required to use separate containers for waste and meat. Containers of different purposes shall be labelled with distinct marks or different colors.

**5.4.5** Appliance and equipment for slaughtering and inspection, including the equipment for slaughtering and dehorning, cutting tools, knife saw for heart opening, and pallet for inspection shall be cleansed and disinfected using water above 82 degrees Celsius after every use.

**5.4.6** Facility and equipment in the workshop shall be cleansed and disinfected in a timely manner as per production needs. Appliances, operating platforms and surfaces that may have contact with the products shall be cleansed and disinfected on a regular basis. Proper measures during cleansing and disinfecting are required to avoid contamination.

## **5.5 Ventilation Facility**

**5.5.1** Ventilation and exhaust facilities are required in the workshop to remove air and vapors that may cause contamination in time. The air flow shall be from clean section to unclean section.

**5.5.2** Mesh screens or other mesh enclosures made from non-corrosive materials for protective purpose are required at the ventilation opening to avoid damage by insect. Mesh screens or mesh enclosures shall be easy to install, disassemble, clean, repair or replace.

## **5.6 Lighting Facility**

**5.6.1** Appropriate natural lighting or man-made lighting is required in the workshop. The color of the lighting facility shall not make a change to the

original color of the products, while the brightness thereof shall meet the working needs of quarantine inspection and production operation.

**5.6.2** Lighting above the section that may expose the meat shall be of a safety type, otherwise a precaution facility is required to avoid contamination caused by breakage.

## **5.7 Storage Facility**

**5.7.1** The temperature of the storeroom shall comply with the specified character of the products being stored.

**5.7.2** The storeroom shall be kept clean, tidy and ventilated. A mould-proof, rat-proof and insect-proof facility is required.

**5.7.3** The temperature in the refrigerated storeroom shall be monitored. Hygrometer is required if necessary. Thermometer and hygrometer shall be adjusted and corrected on a regular basis.

## **5.8 Waste Storage and Harmless Treatment Facility**

**5.8.1** Temporary storage facility for waste is required at the proper location away from the workshop. Such facility shall be made from materials that are easily cleansed and disinfected. The structure thereof shall be insect-proof, and shall not cause contamination to the plant, road or personnel. The facility and container for waste storage shall be clearly and distinctly marked.

**5.8.2** Harmless treatment facility shall comply with the related state laws and regulations, standards and norms to meet the requirements of harmless treatment.

## **6 Quarantine Inspection**

### **6.1 General Requirements**

**6.1.1** Inspection department being equivalent to production capacity is required. Inspection method and related standards are required. A complete inner management is required to ensure the accuracy of the inspection results. An original record shall be kept. Laboratory shall be equipped with facility meeting the needs of inspection. The certification and qualification documents of a public inspection organization are required if it is involved and authorized. The inspection being authorized shall meet the requirements of daily inspection.

**6.1.2** The metrical instrument, facility and equipment used for processing and inspection of the products, and for the operation of the food safety control system shall be meteorologically verified as per requirements, and shall be adjusted and corrected prior to usage.

## **6.2 Inspection Prior to Slaughtering**

**6.2.1** Veterinary Inspection Certificate is required for the livestock and poultry to be slaughtered. A qualified marking shall be applied.

**6.2.2** Inspection prior to slaughtering as per state laws and regulations, standards and norms is required. Clinic health examination for the livestock and poultry entering the plant is required to observe the appearance of the living animals, including behaviors, posture, health condition, body surface, excrement and smell, etc. Animals to be identified as abnormal shall be isolated and observed, and the temperature thereof shall be taken for further check-up. A laboratory sampling inspection is required if necessary.

**6.2.3** The livestock and poultry identified as not suitable for slaughtering shall be treated as per related regulations.

**6.2.4** Feed deprivation and non-disturbance raising are required prior to slaughtering.

**6.2.5** The inspection results made prior to slaughtering shall be submitted to the feeding farm and personnel in charge of the inspection after slaughtering. Recording is required.

## **6.3 Inspection After Slaughtering**

**6.3.1** Inspection of heads, feet, carcass and internal organs (body cavity) shall be carried out as per related state laws and regulations, standards and norms.

**6.3.2** Designated pathway for carcass with suspected disease is required at the proper position of the slaughtering workshop to make further inspection and affirmation. Separate low-temperature section or area is required for the purpose of temporary storage of the carcass with suspected disease or tissue thereof.

**6.3.3** Ample space for inspection after slaughtering in the workshop is required.

**6.3.4** Laboratory equipped with related facility for the inspection of trichina is

required for the slaughtering room of pigs.

**6.3.5** Laboratory sampling inspection shall be carried out if required as per state regulations.

**6.3.6** The inspection records made both prior to and after slaughtering shall be used to determine the comprehensive results of quarantine inspection.

**6.3.7** A clear marking shall be applied for the waste livestock or poultry to avoid confusion which shall cause cross contamination.

**6.3.8** Official veterinarian shall be entitled to slow down or suspend the slaughtering to ensure a complete inspection after slaughtering, or in the event of other emergencies.

#### **6.4 Harmless Treatment**

**6.4.1** The livestock and poultry being inspected and determined as affected with infectious disease, parasitic and toxic disease, and tissue thereof shall be kept in the sealed and impermeable container, be transported by designated vehicle, and be unharmed under the supervision of official veterinarian. Those affected with suspected diseases shall be treated as per related quarantine regulations, and be unharmed upon affirmation.

**6.4.2** The livestock, poultry and tissue thereof being inspected and determined as in need of harmless treatment shall be handled under the supervision of official veterinarian.

**6.4.3** Precautious measures shall be carried out to avoid any personal harm and damage, cross contamination or environmental contamination during the harmless treatment.

### **7 Hygiene Control of Slaughtering and Processing**

**7.1** Enterprises shall observe the regulations issued by an official department in charge regarding the monitoring for residue matters, illegal additive and pathogenic microorganism, and shall therefore set up their own monitoring plan thereof.

**7.2** The inspection post at the appropriate position is required to check the hygiene condition of the carcass and the products.

**7.3** Proper measures shall be carried out to avoid contamination from the livestock and poultry affected with suspected disease, carcass, tissue, body

fluid (bile, urine and milk, etc.) and inner contents of intestines and stomach to other meat, facility and position. Facility and position already contaminated shall be cleansed and disinfected before re-usage.

**7.4** Carcass or products already contaminated by fester, effusion, pathological tissue, body fluid and inner contents of intestines and stomach shall be handled, removed or discarded as per related regulations.

**7.5** Appliance used for processing (including container and water pipe for cleansing) shall not make contact with the ground or unclean surface, so as to avoid cross contamination of the products. Proper measures to eliminate the contamination is required in the event that the products make contact with the ground.

**7.6** An immediate pre-cooling is required if needed for the carcass and edible by-products. The core temperature of the livestock meat shall be kept below 7 degrees Celsius after being cooled; the core temperature of the poultry meat shall be kept below 4 degrees Celsius after being cooled; while the core temperature of the internal organ products shall be kept below 3 degrees Celsius after being cooled. The operating process including processing, segmenting and boning shall be made as soon as possible. The core temperature of the meat shall be below minus 15 degrees Celsius within 48 hours before being kept in the refrigerated storeroom.

**7.7** The slaughtering room shall be ample enough to ensure that the processing is made as per related requirements. Livestock and poultry of different species shall be slaughtered separately.

**7.8** Storage and application of poisonous and harmful materials shall strictly comply with related regulations to make sure that the detergent, disinfectant, insecticide, fuel oil, lubricating oil, chemical reagent and other poisonous and harmful materials necessary for production are under effective control, so as to avoid contamination thereof to the meat.

## **8 Package, Storage and Transportation**

### **8.1 Packaging**

**8.1.1** Packaging shall comply with the provisions stipulated in paragraph 8.5 of GB 14881-2013.

**8.1.2** The materials used for packaging shall comply with related requirements, be free from poisonous and harmful materials, and shall cause no change to the sensory characteristics of the meat.

**8.1.3** The packaging of the meat shall not be used more than once, provided that it is made from anticorrosive materials that are corrosion resistance and easy to be cleansed, and shall be cleansed and disinfected prior to use.

**8.1.4** The inner and outer packaging materials shall be stored separately. The packing workshop shall be kept in a dry, ventilated and hygienic condition.

**8.1.5** The temperature of the packing workshop shall comply with the specified requirements as per the specified characteristics of the products.

## **8.2 Storage and Transportation**

**8.2.1** Storage and transportation shall comply with the provisions stipulated in Chapter 10 of GB 14881-2013.

**8.2.2** Finished products stored in the storeroom shall be kept a proper distance from the wall and the ceiling, and not have direct contact with the floor. Finished products shall be kept separately as per their kinds and batches, and be labelled respectively.

**8.2.3** Any objects that may cause damage to the hygienic condition is strictly prohibited in the storeroom. Products that might produce odor or be tainted by other odor, or cause contamination to other products shall not be kept in the same storeroom. Storeroom shall be disinfected on a regular basis.

**8.2.4** Refrigerated storeroom shall be defrosted on a regular basis.

**8.2.5** Designated vehicle for meat transportation is required, and shall not be used for livestock or poultry, livestock or poultry products to be unharmed, or other objects that may cause contamination to the meat.

**8.2.6** Packaged meat and non-packaged meat shall be transported separately. Otherwise, a physical segregation and shielding measure is required.

**8.2.7** Vehicle used for transportation shall be equipped with facilities including cooling or heat preservation as per the specified characteristics of the products. An appropriate temperature is required during transportation.

**8.2.8** Vehicle used for transportation shall be cleansed and disinfected regularly.

## **9 Products Tracing and Recall Management**

### **9.1 Products Tracing**

A complete system for the purpose of products tracing shall be set up to ensure the availability of products tracing in the event that the meat and products thereof might have unacceptable food safety risks.

### **9.2 Products Recall**

**9.2.1** The slaughtering enterprises shall set up their own products tracing system as per the related laws and regulations, and shall carry out an immediate recall upon finding that the outgoing products do not comply with the food safety requirements, and report to the official veterinarian.

**9.2.2** The handling of the recalled products shall comply with the provisions stipulated in Chapter 11 of GB 14881-2013.

## **10 Personnel Requirement**

**10.1** Personnel requirement shall comply with the state laws and regulations.

**10.2** Those who may have direct contact with the packaged or non-packaged meat, equipment and appliance, and the surface of the meat shall be checked to be physically healthy. Health certificate issued by local medical institutions is required. An annual health check-up or temporary health check-up if necessary is required. Those who have a disease that may affect the food safety shall be transferred from the production post.

**10.3** Personnel involved in processing, quarantine inspection and management shall keep proper personal hygiene. Objects not related with the production process are strictly prohibited in the workshop. Jewelry, watches, and make-up are prohibited during work. Personnel shall wash and disinfect their hands upon entering the workshop. A working suit, hat and shoes are required upon entering, and shall be taken off upon leaving the workshop.

**10.4** The work suits and hats shall be in different colors for different sections or posts as per hygienic requirements. Personnel at different post shall only work at designated post.

**10.5** Adequate personnel involved in quarantine inspection is required. Personnel involved in slaughtering, segmenting, processing, inspection and

hygiene control shall be trained and shall pass the examination to acquire the related qualification.

## **11 Hygiene Management**

### **11.1 Management System**

11.1.1 Food safety and control system, with hazard analysis and precautionary and control measurements as its core contents, shall be set up and carried out.

11.1.2 Enterprises are encouraged to set up and carry out the HACCP (Hazard Analysis Critical Control Point) system.

11.1.3 Top management shall specify the principle and target of hygiene quality, set up related organization, provide adequate resources, and see to it that the system aforesaid is effectively carried out.

### **11.2 Hygiene Management Requirements**

11.2.1 Enterprises shall set up hygiene management requirements in the written form to specify the responsibilities of the executors and the frequency of execution, as well as to carry out effective monitoring and relevant rectifying and precautionary measures.

11.2.2 Water or ice that may make direct or indirect contact with the meat (raw materials, semi-finished products, and finished products included) shall comply with the related hygiene requirements.

11.2.3 Appliance, gloves and inner or outer packaging materials that may make contact with the meat shall be kept clean, hygienic and safe.

11.2.4 The personnel hygiene, operation and design of the appliance shall be made in a proper manner to avoid cross contamination of the meat.

11.2.5 Facility for the purpose of hand-washing, disinfection and sanitation shall be kept clean and maintained on a regular basis.

11.2.6 Chemical, physical and biological contamination to the meat, packaging materials and contact surface of the meat shall be avoided.

11.2.7 All kinds of poisonous chemicals shall be labelled, kept and applied appropriately.

11.2.8 Contamination caused by poor health conditions of the related personnel to the meat, packaging materials and contact surface of the meat

shall be avoided.

**11.2.9** Damage caused by rats, insects and birds shall be prevented and eliminated.

## **12 Recording and File Management**

**12.1** Recording system shall be set up and effectively carried out. Such system shall include the acceptance of livestock and poultry upon entering the workshop, inspection prior to slaughtering, inspection after slaughtering, harmless treatment, disinfection and storage, etc., as well as the maintenance records of the equipment, appliance and facility for slaughtering, and vehicle for transportation. The record shall be complete and shall reflect the reality. The whole production chain shall be trackable.

**12.2** A record with respect to the products recall is required, including the details of the name of the products being recalled, batch number, specifications, quantity, cause of recall, rectifying plan and the sequential handling, etc.

**12.3** Record with respect to personnel employment and training is required.

**12.4** Quality Forms Management Rules, stipulating the requirements of marking, collecting, cataloguing, filing, keeping and handling, etc., is required with respect to the records covering hygienic quality of the products.

**12.5** All records shall be accurate, traceable and comply with the related requirements. All records shall be kept for not less than 6 months upon the expiration date of the meat products. The expiration date shall be not less than 2 years in case that it is not stated.

**12.6** Program file as per the requirements of the food safety control system is required.