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Report Name: China Notifies Updated Code of Hygienic Practice for Cooked Meat

Country: China - People's Republic of

Post: Beijing

Report Category: Agricultural Situation, FAIRS Subject Report, Sanitary/Phytosanitary/Food Safety

Prepared By: Alexandra Baych

Approved By: Adam Branson

Report Highlights:

On March 4, 2021, China notified the National Food Safety Standard for the Code of Hygienic Practice for Cooked Meat (GB 19303-xxxx) to the WTO SPS Committee as G/SPS/N/CHN/1066/Add.1. This Draft Standard will replace the existing National Food Safety Standard for the Code of Hygienic Practice for Cooked Meat Enterprises (GB 19303-2003). The Code applies to the production of cooked meat, but it does not apply to the production of canned meat. Comments on the measure may be submitted to China's SPS Enquiry Point (sps@customs.gov.cn) by May 7, 2021. There is currently no published date for implementation of the final standard. This report contains an unofficial English translation of the draft standard as notified to the WTO.

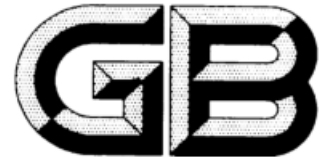
Summary:

On March 4, 2021, China's National Health Commission (NHC) and the State Administration of Market Regulation (SAMR) notified an updated draft of the National Food Safety Standard for the Code of Hygienic Practice for Cooked Meat (GB 19303-xxxx) to the WTO SPS Committee for comment as G/SPS/N/CHN/1066/Add.1. Comments on the National Standard may be submitted to China's SPS Enquiry Point (sps@customs.gov.cn) by May 7, 2021. There is currently no published date for implementation of the final standard. The existing standard is from 2003. This report contains an unofficial English translation as notified to the WTO.

This is a national, mandatory food safety standard that applies to both domestic and imported products. The preface of the draft standard lists a number of changes in the draft revision from the current standard including the workshop layout design, facilities and equipment, sanitation management, production process safety control, storage and transportation. One notable change is more detailed provisions on the control of microbial contamination. This change incorporates requirements of control of microbial contamination during food processing and key steps of microbial monitoring in the environment and during production.

Meat and meat products exporters should work with their Chinese importers and partners to closely monitor the standard revision process and provide their comments on issues of interest.

(Begin Unofficial Translation)



National Food Safety Standard of the People's Republic of China

GB 19303 - XXXX

National Food Safety Standard

Code of Hygienic Practice for Cooked Meat

(Draft for Comments)

Issued date: XX-XX, XXXX

Implementation date: XX-XX, XXXX

Published by the National Health Commission of the People's Republic of
China and the State Administration for Market Regulation

Foreword

The Standard replaces GB 19303-2003 *Code of Hygienic Practice for Cooked Meat Enterprises*.

Compared with GB 19303-2003, the Standard mainly has following changes:

The name of the Standard has been changed into *National Food Safety Standard Code of Hygienic Practice for Cooked Meat*.

The structure of the Standard has been modified;

Terms and definitions have been modified;

Requirements for site selection and factory environment have been modified;

Requirements for facilities and equipment have been modified;

Requirements for hygiene management have been modified;

Requirements for use of raw materials and food additives for cooked meat products have been added;

Requirements for process control during processing have been modified;

Requirements for food storage and transportation have been modified.

Annex A “Specifications of Cleaning and Sterilization” and Annex B “Guide to Microbial Monitoring Processes during Production of Cooked Meat Products” have been added.

National Food Safety Standard
Code of Hygienic Practice for Cooked Meat

1. Scope

The Standard specifies the basic requirements and management principles for sites, facilities and personnel with regard to purchase of raw materials, processing, packaging, storage, transportation of raw products and other steps during the production of cooked meat.

The Standard applies to the production of cooked meat products, including heat processed meat products and fermented meat products; the Standard does not apply to the production of canned meat.

2. Terms and Definitions

Terms and definition of GB 14881 and following terms and definitions apply to the Standard.

2.1 Heat processed meat products

Cooked meat products which are produced from livestock and poultry products, heated and cooked by using one or multiple processes including seasoning with soy sauce, stewing in soy sauce, broiling, roasting, steaming and braising. The heat processed meat products include meat products seasoned with soy sauce, smoked, broiled and roasted meat products, seasoned minced meat products stuffed in casings, fried meat products, dried cooked meat products and other heat processed meat products.

2.2 Fermented Meat Products

Meat products which are produced from livestock and poultry products with or without fermenters, with addition of such other materials as salts, maturely fermented by means of microbial fermentation and (or) enzyme action under natural or manual conditions and ready-to-eat. Fermented meat products include fermented minced meat products stuffed in casings, fermented ham products and other fermented meat products.

3. Site Selection and Factory Environment

3.1 The site shall comply with relevant provisions in GB 14881.

3.2 There shall be no sites and facilities impinging on hygiene and environmental tidiness in the factory sites.

3.3 No animals shall be raised in the production areas. There shall be proper barriers to prevent animals from entering production areas.

3.4 Such sites as boiler rooms where dust is easily produced shall be a certain distance from the production workshops of meat products and shall be located in the down-wind locations.

3.5 Sewage treatment facilities in factories or workshops shall be separated from and have a proper distance from sites of production, processing and storage for cooked meat products.

4. Factory Buildings and Workshops

4.1 The factories and workshops shall comply with relevant provisions in GB 14881.

4.2 Design and layout

4.2.1 Workshops shall have enough space and height to meet the requirements of equipment installation and maintenance, production, hygiene and cleaning, transport of materials, lighting, ventilation and hygienic inspection. The clearance height in the main factory buildings should be over 3 meters.

4.2.2 Enterprises of cooked meat products shall divide the factory buildings and workshops into general work areas, quasi-clean work areas and clean work areas according to product characteristics, production processes, production characteristics and requirements for cleanliness as well as the actual situation of factory buildings and workshops.

4.2.2.1 General work areas for heat processed meat products include warehouses of raw materials, warehouses of packing materials, workshops of outer packing and warehouses of finished products; quasi-clean work areas include workshops for thawing of raw materials, selection of materials, trimming, mixture of materials, rolling, salting, shaping or stuffing, heat processing and etc.; clean work areas include workshops for cooling and inner packing and auxiliary areas subject to special cleaning requirements (such as temporary storage rooms for sterilized inner packing materials whose external packing is removed).

4.2.2.2 General work areas for fermented meat products include warehouses of raw materials, warehouses of packing materials, workshops of outer packing and warehouses of finished products; quasi-clean work areas include workshops for thawing of raw materials, selection of materials, trimming, mixture of materials, salting, shaping or stuffing, smoking, fermentation, air drying and etc.; clean work areas include workshops for after-processing and inner packing and auxiliary areas subject to special cleaning requirements (such as storage sites for unpackaged semi-finished products to be packaged and temporary storage rooms for sterilized inner packing materials whose external packing is removed).

4.2.3 There shall be passages for materials, and passages for materials between different clean work areas shall be separated. Heat processing/fermentation rooms shall have boundaries between processing areas for raw materials and processing areas for cooked materials and shall have entrances for raw materials and exits for cooked materials which lead to processing areas of raw materials and processing areas of cooked materials, respectively. Passages shall be closed

connecting freezers of raw meat with workshops for cutting and treatment or other effective measures to prevent cross contamination.

4.2.4 There shall be passages for personnel, and passages for personnel between different clean work areas shall be separated.

4.2.5 Storage sites (warehouses) for raw materials and storage sites (warehouses) for finished products shall be located separately and shall not be directly connected. Raw meat shall be stored in special warehouses, and their inner and external packing materials shall be stored separately.

4.2.6 For enterprises of cooked meat products which also deal in slaughtering, production areas of cooked meat products shall be separated from areas for slaughtering and processing, and from waiting areas for-slaughtering, and proper distances shall be kept to prevent cross contamination.

4.3 Inner Structure of Buildings

Production workshops where water easily condenses in quasi-clean work areas and clean areas shall have protective measures to prevent condensed water from dripping onto unpackaged products, and the ceilings shall be designed to prevent condensed water from vertically dripping.

5. Facilities and Equipment

5.1 Facilities and equipment shall comply with relevant provisions in GB 14881.

5.2 Facilities

5.2.1 Water facilities

5.2.1.1 Water used to manufacture ice for processing shall comply with provisions in GB 5749, and contamination shall be avoided during production, use and storage of ice.

5.2.1.2 Water hoses shall not touch the floor, and syphoning and inverse flow shall be avoided during use.

5.2.2 Drainage facility

5.2.2.1 Drainage facilities and their lower parts shall not have water supply pipelines for water used for production.

5.2.2.2 Outlets shall be equipped with such devices as sieves to prevent solid waste from blocking the drain lines.

5.2.3 Cleaning and sterilization facilities

5.2.3.1 Containers for cleaning and sterilization shall be made of materials which are nontoxic, corrosion preventive, and easy to clean.

5.2.3.2 There shall be separate cleaning and sterilization areas for tools and appliances in quasi-clean work areas and clean work areas to avoid cross contamination.

5.2.3.3 There shall be separate entrances, dressing rooms, hand cleaning & sterilization facilities as well as sterilization facilities for footwear and boots in quasi-clean work areas and clean work areas.

5.2.3.4 Inner packing materials shall be moved between workshops for inner packing through the buffer rooms or delivery windows which shall be equipped with sterilization devices.

5.2.3.5 Workshops for inner packing should be equipped with air purification devices.

5.2.4 Storage Facilities for Waste

5.2.4.1 There shall be designated areas for storage of waste, and the waste shall not be stored in other areas.

5.2.4.2 Waste shall be placed in special leak-proof anti-corrosive containers with lids, and the special containers for waste products shall have clear markings and shall not be mixed with containers for food.

5.2.5 Facilities for Personal Hygiene

5.2.5.1 There shall be separate dressing rooms for quasi-clean work areas and clean areas, and the dressing rooms shall be connected with workshops. Toilets and showers connected to dressing rooms shall be set up outside the dressing rooms and be kept clean and hygienic, and their facilities and layout shall not bring risk of contamination to the workshops.

5.2.5.2 Toilets shall adopt single flushing facilities, be well ventilated, have dry floors, be kept clean and odorless and be equipped with preventive facilities against mosquitoes and flies, and the excrement and urine drainpipes shall not be mixed with sewage drainpipes of the workshops.

5.2.5.3 Special non-manual hand washing facilities and sterilization and hand-drying devices shall be set up at the entrance of workshops and in proper locations in workshops, and the water temperature for the said facilities should be adjustable. Special non-manual hand washing facilities and sterilization and hand-drying facilities shall be set up in the heat processing workshops and inner packing workshops.

5.2.6 Ventilation Facilities

5.2.6.1 Effective mechanical ventilation facilities shall be placed over the food processing areas where a large amount of heat, vapor, cooking oil fumes or strong odor are easily produced.

5.2.6.2 Cooling rooms shall be equipped with cooling and ventilation facilities.

5.2.7 Storage Facilities

Warehouses of raw materials (dry materials shall be separated from wet materials), warehouses of finished products and warehouses of packing materials shall be set up. Articles stored in warehouses shall have clear markings which indicate such information as names, quantities, production batches (if any), shelf life, time of entering the warehouse and names of production

enterprises, and alternatively, and other relevant information may be also recorded with the method of informatization technologies.

5.2.8 Temperature and Humidity Control Facilities

For work processes and sites subject to temperature and humidity requirements, the temperature and humidity shall be controlled according to process requirements, and there shall be monitoring device which shall be inspected and calibrated regularly.

5.3 Equipment

5.3.1 Heat processing equipment shall meet the process requirements, and the effectiveness of heating equipment needs to be verified when necessary.

5.3.2 Cross contamination shall be avoided for equipment, tools, appliances and containers which touch raw materials, semi-finished products and finished products. When not necessary for the production processes, no tools or appliances which are easy to corrode and damage shall be used, and when such tools and appliances have to be used (such as bamboo and wood tools and appliances during production of dried meat floss), the ways of use, sterilization and storage and the requirements for replacement shall be specified.

5.3.3 Equipment, tools and containers in each area shall be placed separately from those in another area, and there shall be reasonable measures to prevent cross contamination. Equipment which needs to go through the whole process together with product (such as sausage cage trucks) shall not enter the processing areas of cooked materials directly before going through the heat process together with materials to be processed. Other equipment, knives, chopping boards and measuring instruments which don't need to go through the entire process shall be placed in their own specified separate areas.

5.3.4 Design, installation, operation, maintenance and calibration of such pressure vessels as sterilization pots shall comply with the national safety standards for pressure vessels. Sterilization equipment shall have temperature indication device.

6. Hygiene Management

6.1 Hygiene management shall comply with relevant provisions in GB 14881.

6.2 Hygiene management of factory buildings, facilities and equipment

6.2.1 The cleaning and sterilization systems shall be performed strictly, and there shall be designated personnel responsible for inspection and establishment of records. Sterilization effects shall be monitored regularly, and Annex B may be referred to for the monitoring process.

6.2.2 Floors, ceilings, equipment, facilities, walls and drainage channels on the processing sites shall be cleaned and sterilized regularly with a frequency specified according to the actual situations of hygiene monitoring.

6.2.3 Inner packing rooms shall be cleaned and sterilized regularly, and the hygienic condition of the equipment shall be inspected.

6.2.4 Pipes and equipment in direct contact with products shall be cleaned and sterilized at least once a day according to the actual production situation. Tools and appliances in direct contact with products in the clean work areas shall be sterilized at least once every four hours.

6.2.5 When hot water is used for cleaning and sterilization, the temperature of water for cleaning should not be lower than 40°C, temperature of water for sterilization shall not be lower than 82°C, and the time of sterilization shall not be less than 2 minutes.

6.3 Health Management and Hygiene Requirements for Food Processing Personnel

6.3.1 Food processing personnel shall wear labor suits and supporting articles of clothing neatly for good protection during working hours.

6.3.2 Food processing personnel shall wash and sterilize their hands as required when entering work areas, and shall wash and sterilize hands again after 4 hours of continuous work. When contaminated during operation, hands shall be cleaned and sterilized immediately.

6.3.3 When wearing gloves during work, food processing personnel shall wear gloves after washing and sterilizing hands, and the gloves can touch food only after gloved surfaces have been sterilized. Gloves shall be replaced after 4 hours of use. When contaminated and damaged during operation, gloves shall be replaced.

6.3.4 Food processing personnel shall wear breathing masks during work periods.

6.3.5 Food processing personnel at products processing sites shall avoid behaviors which may result in producing contamination as possible, for example: smoking, spitting, chewing, sneezing or coughing at unpackaged food.

6.3.6 Non-production personnel are forbidden to enter the processing areas of cooked meat products.

6.4 Management of Labor Suits

6.4.1 Labor suits and their supporting articles for employees shall be kept separate from personal clothes and other articles.

6.4.2 Labor suits and their supporting articles shall comply with relevant hygiene requirements for corresponding work areas. Labor suits and their supporting articles in each work areas shall be kept separate those from another area and shall be clearly distinguished with colors and marks.

6.4.3 Labor suits and caps in different clean areas shall be washed separately. Labor suits and caps for quasi-clean areas and clean areas shall be cleaned and replaced every day. Frequencies of cleaning and replacement for labor suits and caps in general clean areas may be specified according

to actual situations. Labor suits and caps which still cannot achieve the expected use after cleaning and sterilization shall be replaced in time.

6.4.4 Labor suits and their supporting articles shall not be worn outside of relevant work areas.

7. Raw Food Materials, Food Additives and Food Related Products

7.1 Raw food materials, food additives and food related products shall comply with relevant provisions in GB 14881.

7.2 Food ingredients

7.2.1 Raw meat shall have animal quarantine certificates. Imported raw meat shall have exit and entrance certificates of quarantine and inspection.

7.2.2 Raw materials shall comply with requirements specified in such relevant standards as GB 2707, and raw materials which have gone bad or have exceeded the shelf life shall not be used for production.

7.2.3 Frozen raw meat materials shall be stored in freezers at a temperature of below -18°C. Fresh raw meat materials shall be stored in cold storage at a temperature of 0 ~ 4°C. Orders for delivery of raw meat materials from storage shall be subject to the first-in first-out principle.

7.3 Food additives shall be stored in designated warehouses or designated cupboards under management of designated personnel. Nitrite shall be subject to double-person double-lock management.

7.4 Strains for fermentation

Strains for fermentation shall comply with relevant national standards or regulations and bear inspection reports or product certificates of compliance to ensure the safety. Strains for fermentation shall be stored at a proper temperature to keep the vitality of strains. There shall be special storage facilities for strains.

8. Food Safety Control in Production Process

8.1 Food safety control in production process shall comply with relevant provisions in GB 14881.

8.2 Control of risk of product contamination

8.2.1 Contamination shall be avoided during thawing of frozen meat. In the case of thawing with water, livestock and poultry products of different kinds shall be thawed separately.

8.3 Control of microbial contamination

8.3.1 Control of microbial contamination during food processing

8.3.1.1 During production, processing and storage, enterprises shall effectively control and document the temperature and time according to the characteristics of products during key steps closely related to food safety.

8.3.1.2 The temperature of salting rooms shall not be higher than 4°C, and the salting time shall be specified according to product characteristics; the temperature of freezers shall not be higher than -18°C; the temperature of packing workshops should not be higher than 12°C. The ambient temperature of other production workshops shall be controlled according to the process requirements for product processing.

8.3.1.3 The minimum central temperature and holding time for products or the temperature and holding time for heating mediums shall be controlled for heat processing. When heat processing is over, the time for which products stay in heat processing workshops or the products' surface temperature at which the products leave the heat processing workshops shall be controlled.

8.3.1.4 During production of fermented meat products, the temperature, humidity and time for the process of salting and fermentation shall be controlled according to the process requirements.

8.3.1.5 During cooling, the temperature and time shall be controlled according to process requirements of different products.

8.3.1.6 During secondary sterilization, the temperature and time of sterilization shall be controlled according to product quality requirements.

8.3.2 Cleaning and sterilization

8.3.2.1 Cleaning and sterilization methods shall be safe, hygienic and effective. When ozonization is adopted and the sterilization effect is ensured, the concentration of ozone shall be strictly controlled. When disinfection by ultraviolet light is adopted, the disinfection distance shall be controlled and the ultraviolet strength shall be monitored regularly; when filtration sterilization is adopted, filter membranes and filter materials shall be replaced regularly.

8.3.2.2 The number of personnel responsible for cleaning and sterilization shall meet the actual need, and the said personnel shall have been well trained and be able to properly use cleaning and sterilization tools and relevant reagents to ensure that the effect of cleaning and sterilization meet the production requirements.

8.3.2.3 Proper measures shall be taken during use of detergents and disinfectants to prevent products from being contaminated.

8.3.2.4 For requirements for cleaning and sterilization, refer to Annex A.

8.3.3 Microbial monitoring during food processing

8.3.3.1 Determine the key steps of microbial monitoring in the environment and during production according to the product characteristics of cooked meat products, and requirements in Annex B may be referred for monitoring.

8.3.3.2 Microbial monitoring for heat processed meat products shall include monitoring for food hygiene indicator bacterium, such as total numbers of colony and coli group indicator bacterium. Sampling points and monitoring frequencies shall be increased properly during production of low-temperature cooked meat products.

8.3.3.3 Sampling points and monitoring frequencies shall be increased properly during production of fermented meat products.

8.4 Control of chemical contamination

8.4.1 Effective measures shall be taken during processing to control such secondary harmful contaminants as polycyclic aromatic hydrocarbons, biogenic amines, heterocyclic amines and acrylic amide. Hardwood (or bits of wood) with low content of rosin or smoking liquid should be used to smoke meat, and the frequency of use of oil to fry meat shall be controlled.

8.4.2 During cleaning and sterilization for equipment surfaces and tools and containers in direct contact with products, detergents and disinfectants shall be used properly, and the material quality, use and other factors shall be considered for the items to be cleaned and sterilized to ensure that no chemical reaction with the surface in contact with products occurs during cleaning and sterilization and to avoid contamination with chemical residues.

8.4.3 Fixed containers shall be used in designated sites to store harmful chemical substances, which shall have clear markings and be locked to prevent products from being contaminated in an intended or unintentional way; harmful chemicals shall be kept by designated personnel, only approved pesticides shall be used, and the areas of use and concentration of harmful chemicals shall be recorded.

8.5 Control of physical contamination

Control of physical contamination shall comply with relevant provisions in GB 14881.

8.6 Packaging

Packing materials or gases used for gas packing shall be nontoxic and shall not affect the safety of products under specific processing, storage and transportation conditions.

9. Inspection

Inspection shall comply with relevant provisions in GB 14881.

10. Food Storage and Transportation

10.1 Food storage and transportation shall comply with relevant provisions in GB 14881.

10.2 Cooked meat products needing to be kept in cold storage shall be stored at a temperature of 0°C~4°C; for cooked meat products needing to be frozen shall be kept at -18°C or a lower temperature. For cooked meat products needing to be stored at the ordinary temperature, the range of storage temperature shall be specified, and they shall be stored as required.

10.3 Temperature control during transportation shall comply with the temperature requirements for product transportation. There shall be temperature monitoring devices in cold chain vans, and the device shall be calibrated and maintained regularly.

11. Product Recall Management

Product Recall Management shall comply with relevant provisions in GB 14881.

12. Training

Training shall comply with relevant provisions in GB 14881.

13. Management System and Personnel

Management System and Personnel shall comply with relevant provisions in GB 14881.

14. Records and Document Management

Records and Document Management shall comply with relevant provisions in GB 14881.

Annex A

(Informative Annex)

Guide to Cleaning and Sterilization Processes

A.1 The Annex provides key points which should be considered for cleaning and sterilization during production of cooked meat products, which may perform in consideration of product characteristics and the technical level of production processes in actual production. For details, refer to examples of cleaning and sterilization in Table A.1.

A.2 Requirements for articles used for cleaning and sterilization

A.2.1 Warm water: temperature of 40°C-55°C; Hot water: temperature $\geq 82^{\circ}\text{C}$, and the water pressure complies with the cleaning requirements. Take sterilization with hot water as priority for equipment, tools and appliances fit for sterilization with hot water.

A.2.2 Detergents: alkaline foam detergents, acid foam detergents, hand detergents and etc. Detergents allowed by relevant provisions shall be used for disinfectants.

A.2.3 Disinfectants: disinfectants for equipment, disinfectants for hands and etc. Disinfectants allowed by relevant provisions shall be used for disinfectants.

A.2.4 Compressed air: the air cleanliness and pressure shall meet cleaning requirements.

A.3 Establish rating requirements for grades of air cleanliness in clean work areas according to the requirements of GB 50687.

A.4 Select proper cleaning and sterilization facilities according to the need of production. It includes such equipment and facilities as cleaning and sterilization systems, storage areas for chemicals, ozone generators, non-manual hand washing facilities, disinfectant dispensers, mobile foam trucks or mobile sprayers.

A.5 Cleaning and sterilization requirements

A.5.1 Clean the floors with detergents at least once a day, and during cleaning hot water or vapor may be used to remove grease effectively.

A.5.2 Under the normal production condition, select proper detergents and disinfectants, clean and disinfect tools and appliances used during production at least once a day. When contaminated, tools and appliances shall be cleaned and sterilized immediately.

A.5.3 When entering production areas, employees shall clean and sterilize their hands and rubber overshoes.

A.5.4 Pipes and equipment in direct contact with products shall be cleaned and sterilized at least once for each shift. In the case of continuous production, pipes and equipment in direct contact with products shall be cleaned and sterilized at least once a day.

A.5.5 Under the normal production condition, tools and appliances directly touching products shall be sterilized at least once every 4 hours, and hands of employees shall be sterilized once every 2 ~ 4 hours. When contaminated, tools and appliances or hands shall be cleaned and sterilized immediately.

A.5.6 Radiation with ultraviolet or ozonization for air disinfection for each shift shall comply with production hygiene requirements. In the case of continuous production, air in workshops shall be sterilized at least once a day.

A.5.7 After raw materials are delivered from storage, clean the vacant storage locations (storage racks), wipe storage racks, sweep the floors, clean sundries and ice produced during defrosting. It is suggested to raise the temperature entirely after a power cut and then to clean and sterilize the sites yearly.

A.5.8 Verify the sterilization effect regularly and ensure compliance with production hygiene requirements.

Table A.1 Examples of Cleaning and Sterilization

| No. | Objects | Steps |
|-----|--|--|
| 1 | Object surfaces (including floors, ceilings, surfaces of operating panels and walls) | <p>a. Preparation for cleaning: clean feculence.</p> <p>b. Pre-rinse: rinse the surfaces with warm water of 40 ~ 55°C along with drainage.</p> <p>c. Cleaning with foam: cover all areas to be cleaned with alkaline foam detergents, and let the foams touch the surfaces for 15~20 minutes.</p> <p>d. Manual scrub: use materials which have low risk of dropping and won't result in abrasion of surfaces to scrub filth.</p> <p>e. Middle rinse: rinse the surfaces with warm water of 40 ~ 55°C along with drainage to remove all residues of detergents.</p> <p>f. Sterilization: sterilize the surfaces with quaternary ammonium salts, sodium hypochlorite or other effective disinfectants.</p> <p>g. Final rinse: rinse disinfectants with water for production use.</p> |
| 2 | Air | <p>Method 1: sterilize the air with ozone (apply 5 ppm ozone for 5~8 minutes).</p> <p>Method 2: use spatial spray systems or mobile spray systems to conduct spray sterilization.</p> |
| 3 | Equipment | <p>a. Preparation for cleaning: remove meat scraps.</p> <p>b. Pre-rinse: rinse the equipment from top to bottom with warm water of 40~55°C.</p> <p>c. Cleaning with foam: spray alkaline foam detergents, and let the foam touch the equipment for 15~20 minutes.</p> |

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| | | <p>d. Manual scrub: scrub the filth with hairbrush or scouring pads.</p> <p>e. Middle rinse: rinse the surfaces of equipment surface from top to bottom with warm water of 40 ~ 55°C.</p> <p>f. Sterilization: sterilize them with quaternary ammonium salts, sodium hypochlorite or other effective disinfectants.</p> <p>g. Final rinse: rinse disinfectants on the equipment surfaces from top to bottom with water for production use.</p> <p>Note: filth removal and cleaning: in the above step c, the alkaline foam detergents are replaced with acid foam detergents on a monthly basis to clean and polish the equipment and the other above steps remain the same.</p> |
| 4 | Such equipment parts and components as rotors, perforated plates and blades | <p>a. Pre-rinse: simply clean the parts and components to be cleaned with water of 40~55°C and remove comminuted meat.</p> <p>b. Cleaning with foam: spray alkaline foam detergents and let the foam touch the equipment for 15~20 minutes; scrub them with scrubbing brushes or scouring pads; or put the pre-cleaned parts and components into purge tanks with water circulation, add alkaline foam detergents into the tank and clean the parts and components.</p> <p>c. Middle rinse: rinse them with warm water of 40 ~ 55°C.</p> <p>d. Sterilization: after rinsing, put the parts and components into sterilization grooves, and sterilize them with quaternary ammonium salts, sodium hypochlorite or other effective disinfectants.</p> <p>e. Final rinse: rinse disinfectants with water for production use;</p> |
| 5 | Circulation boxes, charging spouts, chopping boards, and etc. | <p>a. Preparation for cleaning: remove meat scraps.</p> <p>b. Pre-rinse: rinse the objects with warm water of 40 ~ 55°C.</p> <p>c. Cleaning with foam: spray alkaline foam detergents, and let the foam touch the objects for 15~20 minutes.</p> <p>d. Middle rinse: rinse the objects with warm water of 40 ~ 55°C.</p> <p>e. Sterilization: sterilize the objects with quaternary ammonium salts, sodium hypochlorite or other effective disinfectants.</p> <p>f. Final rinse: rinse disinfectants with water for production use.</p> |
| 6 | Pipes | <p>a. Preparation for cleaning: disassemble all pipes which can be disassembled or use the Clean-In-Place (CIP) system.</p> <p>b. Pre-cleaning: rinse and scrub the surfaces and insides/bottoms with warm water of 40 ~ 55°C.</p> <p>c. Cleaning with foam: clean them with brush or scouring pads dipped with alkaline detergents.</p> <p>d. Manual scrub: scrub the pipes from top to bottom with scouring pads dipped with water of 40 ~55°C.</p> <p>e. Sterilization: sterilize the pipes with quaternary ammonium salts,</p> |

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| | | <p>sodium hypochlorite or other effective disinfectants.</p> <p>f. Final cleaning: rinse the pipes from top to bottom.</p> |
| 7 | Production equipment which doesn't directly touch products, such as welders, metal detectors and packing machines with stretched films | <p>a. Preparation for cleaning: remove all products before cleaning.</p> <p>b. Pre-cleaning: rinse and scrub the surfaces and insides/bottoms with warm water of 40 ~ 55°C.</p> <p>c. Cleaning with foam: clean the equipment with brush or scouring pads dipped with alkaline detergents.</p> <p>d. Manual scrub: scrub the equipment from top to bottom with scouring pads dipped with water of 40 ~55°C.</p> <p>e. Sterilization: sterilize the equipment with quaternary ammonium salts, sodium hypochlorite or other effective disinfectants.</p> <p>f. Final cleaning: remove disinfectants from top to bottom with scouring pads.</p> |
| 8 | Smoking ovens, smoking trucks, smoking poles, and etc. | <p>a. Preparation for cleaning: remove all products before cleaning.</p> <p>b. Pre-rinse: rinse the surfaces of equipment and appliances with warm water of 40 ~ 55°C.</p> <p>c. Cleaning with foam: use high-concentration detergents for heavy grease buildup to rapidly damp and permeate the heavy greasy dirt adhering to the smoking trucks and smoking poles. Clean the smoking ovens according to the built-in cleaning procedures specified in the instructions of smoking ovens and clean the inner walls and tops by spraying rich-foam alkaline detergents for heavy greasy buildup.</p> <p>d. Final rinse: rinse detergents with water for production use.</p> <p>Note: filth removal and cleaning: in the above step c, the alkaline foam detergents are replaced with acid foam detergents on a monthly basis to clean and polish the equipment and the other above steps remain the same.</p> |
| 9 | Personnel | <p>Cleaning and sterilization for hands:</p> <p>a. Cleaning: fully soak both hands with flowing water, and completely clean the hands with hand detergents for at least 20 seconds.</p> <p>b. Rinse: completely wash both hands with flowing water.</p> <p>c. Sterilization: it is suggested to sterilize hands with disposable hand disinfectants (or use sodium hypochlorite or alcohol for the purpose of sterilization).</p> <p>Sterilization for shoes: sterilize shoes with sterilization facilities at the entrances of workshops.</p> |

Note: when sterilizing object surfaces (including floors, ceilings, operation panel surfaces, walls), equipment, tools and appliances, clean the surfaces first, then rinse the surfaces with high-pressure water jet, and rinse the surfaces with hot water ($\geq 82^{\circ}\text{C}$) for at least 2 minutes as final step.

Annex B

(Informative Annex)

Guide to Microbial Monitoring Process during Production of Cooked Meat Products

B.1 The Annex provides requirements for microbial monitoring for environment and in-process products during processing of cooked meat products, and enterprises may make proper adjustments according to such factors as product characteristics and production processes.

B.2 Enterprises shall carry out test activities, verify cleaning effects and monitor raw materials, semi-finished products, finished products and production environment according to internal quality control requirements, and Table B.1 may be referred to for the performance.

B.3 Enterprises which carry out microbial monitoring shall have corresponding test equipment, facilities and reagents. The number of test equipment shall be suitable for the production capability of the enterprises.

B.4 Monitoring processes for environmental microbes shall be established according to relevant provisions in GB 14881. Sampling, treatment and test methods are determined according to actual situation of production.

B.5 Sampling locations of environmental microbes shall focus on the clean work areas, and areas of mixture of materials and salting rooms where there is high risk of contamination of raw materials may be monitored as necessary.

B.6 Enterprises may adopt rapid detection technologies for the purpose of microbial monitoring.

Table B.1 Requirements for Microbial Monitoring during Production of Cooked Meat Products

| Monitoring item | | Suggested sampling points ^a | Microbes suggested for monitoring ^b | Suggested monitoring frequency ^c | Suggested monitoring indicator limit |
|---|-------------------------------|---|--|---|---|
| Microbial monitoring for environmental microbes | Surfaces in contact with food | Hands of employees, labor cloth, product containers, conveyor belts, work platform surfaces and other equipment surfaces in contact with food | total numbers of colony, coli group and <i>Listeria monocytogenes</i> ^d | Cleaning effects shall be verified after cleaning and sterilization, and other steps shall be performed at least once a month | Determine monitoring indicator limits for total numbers of colony and coli group according to actual production situations. |
| | Surfaces near the surfaces in | External surfaces of equipment, brackets of | total numbers of colony, coli group and | At least once a month | Determine monitoring indicator limits for |

| | | | | | |
|---|--|---|---|-----------------------|---|
| | contact with food or surfaces in contact with food | operating platforms, brackets of work equipment, control panels | Listeria monocytogenes ^d | | total numbers of colony and coli group according to actual production situations. |
| | Ambient air | Locations close to unpackaged products | total numbers of colony, mould ^e and etc. | At least once a month | Determine the monitoring indicator limits according to actual production situations |
| Microbial monitoring during in-process products | | Products to be packaged at the end of production lines | total numbers of colony ^f , coli group and Listeria monocytogenes ^d | At least once a month | Determine monitoring indicator limits for total numbers of colony and coli group according to actual production situations; No Listeria monocytogenes shall be found during detection. |
| <p>a. Sampling points may be selected according to product characteristics and actual situations during processing.</p> <p>b. One or more hygiene indicator microbes may be selected for monitoring.</p> <p>c. Monitoring frequencies may be determined according to risks of specific sampling points.</p> <p>d. Monitoring for production environment of fermented meat products may be focused on.</p> <p>e. Fermented meat products may not be subject to monitoring for mould.</p> <p>f. Fermented meat products may not be subject to monitoring for the numbers of colony.</p> | | | | | |

(End Translation)

Attachments:

No Attachments.