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Report Highlights:

The National Health Commission (NHC) and the State Administration of Market Regulation (SAMR) published the National Food Safety Standard for “Sanitary Practices for The Production of Cooked Meat Products” (GB 19303-2023) on September 6, 2023. This Standard was implemented on September 6th, 2024. This Standard replaces GB 19303-2003 "Sanitary Practices of Cooked Meat Product Factories." This report contains an unofficial English translation of the Standard though interested parties are encouraged to undertake their own review of the original text.

Background

The National Health Commission (NHC) and the State Administration of Market Regulation (SAMR) published the National Food Safety Standard for "Sanitary Practices for The Production of Cooked Meat Products" (GB 19303-2023) on September 6, 2023. This Standard was implemented on September 6th, 2024.

This Standard replaces National Standard (Guojia Biaozhun or, GB) 19303-2003 "Sanitary Practices of Cooked Meat Product Factories." Compared with GB19303-2003, this Standard mainly has the following changes: terminology and definitions, requirements for site selection and environmental conditions of the plant area, facilities and equipment, food storage and transportation sanitary management requirements, and the control requirements for processing procedures have been modified. Requirements for the use of raw materials and food additives have been added. This report contains an unofficial English translation of the Standard. The Chinese text for GB 19303-2023 is available for review (link in Chinese).

FAS China previously translated and published a GAIN report on National Food Safety Standard for Cooked Meat Products GB2726-2016 (CH18028) in 2018 and National Food Safety Standard for Cooked Meat Products GB2726-XXXX (draft for comments) as CH2024-0111 in 2024.

GB standards are mandatory or compulsory standards. Exporters of covered products should work with their Chinese importers and partners to learn this Standard, and verify which imported and domestic products will be held to this Standard once it enters into force.

(Begin Unofficial Translation)

National Standards of the People's Republic of China

GB 19303-2023

National Food Safety Standard

Sanitary Practices for the Production of Cooked Meat Products

Published on 2023-09-06 Implemented from 2024-09-06

Issued by

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

Foreword

This Standard replaces GB 19303-2003 "Sanitary Practices of Cooked Meat Product Factories".

Compared to GB 19303-2003, the main changes in this Standard are as follows:

— The title of the Standard has been changed to "National Food Safety Standard - Sanitary Practices for the Production of Cooked Meat Products";

— The structure of the Standard has been modified;

— Terminology and definitions have been modified;

—Requirements for site selection and environmental conditions of the plant area have been modified;

— Requirements for facilities and equipment have been modified;

— Sanitary management requirements have been modified;

— Requirements for the use of raw materials and food additives have been added;

— Control requirements for processing procedures have been modified;

— Requirements for food storage and transportation have been modified;

— Appendix A "Guidelines for Cleaning and Disinfection Procedures" and Appendix B "Guidelines for Microbial Monitoring Procedures in the Production Process of Cooked Meat Products" have been added.

National Food Safety Standard

Sanitary Practices for the Production of Cooked Meat Products

1 Scope

This Standard specifies the basic requirements and management guidelines for locations, facilities, personnel involved in the procurement of raw materials, processing, packaging, storage, and transportation during the production process of cooked meat products.

This Standard applies to the production of cooked meat products, including heat-processed cooked meat products and fermented meat products, but does not apply to canned meats.

2 Terms and Definitions

The terms and definitions defined by GB 14881, GB 2726, GB 2707, as well as the following terms and definitions, apply to this Standard.

2.1 Heat Processed Cooked Meat Products

Heat processed cooked meat products are products made from livestock or poultry products as the main materials, which are cooked using one or multiple processes such as braising with soy sauce, stewing with soy sauce, smoking, roasting, grilling, steaming, boiling, frying, etc. This includes meat products braised and stewed with soy sauce, smoked and grilled meat products, stuffed meat products, fried meat products, dried cooked meat products, and other heat-processed cooked meat products.

2.2 Fermented Meat Products

Fermented meat products are meat products made from livestock or poultry products as main ingredients, with or without the addition of fermenting agents, combined with edible salt and other ingredients, which are fermented and matured under natural or artificial conditions through the action of microorganisms and/or enzymes into ready-to-eat products. This includes fermented stuffed products, fermented ham products, and other fermented meat products.

3 Site Selection and Environmental Conditions of the Plant Area

3.1 It should comply with the relevant provisions of GB 14881.

3.2 No animals should be kept within the production area. Appropriate enclosure measures should be taken to prevent animals from entering the production area.

3.3 Facilities that may generate dust, such as boiler rooms, should be located at a certain distance from the cooked meat product workshops and positioned downwind of the prevailing wind direction. If avoidance is difficult, necessary precautionary measures should be taken.

3.4 The wastewater and sewage treatment facilities of the factory or workshop should be separate from the cooked meat product production, processing, and storage areas, and maintain an appropriate distance.

3.5 For joint processing enterprises involving slaughter and cooked meat products, the cooked meat product production area should be separated from the slaughtering and processing area. The waiting area for slaughtering in the slaughtering processing area and the harmless treatment room area should be independently zoned from the cooked meat product production area, maintaining sufficient distance and being upwind to prevent cross-contamination.

4 Buildings and Workshops

4.1 General Requirements

It should comply with the relevant provisions of GB 14881.

4.2 Design and Layout

4.2.1 The workshop should have sufficient space and height to accommodate equipment installation & maintenance, production & operations, sanitation & cleaning, material transfer, lighting and ventilation, and sanitary inspection needs. The net height inside the main building should preferably be over 3 m.

4.2.2 Cooked meat product enterprises should reasonably zone their buildings and workshops according to the characteristics of the product, production process, production features, and the cleanliness requirements of the production process, combined with the actual situation of the buildings and workshops. The buildings and workshops should be divided into general operation areas, quasi-clean operation areas, and clean operation areas.

4.2.2.1 The general operation areas for heat-processed cooked meat products include raw material warehouses, packaging material warehouses, outer packaging workshops, finished product warehouses, etc.; quasi-clean operation areas include raw material thawing, material selection, trimming, seasoning, rolling, marinating, forming or filling, heat-processing workshops, etc.; clean operation areas include cooling, inner packaging workshops, and auxiliary areas with special cleanliness requirements, such as inner packaging material temporary storage rooms after removing outer packaging and disinfection.

4.2.2.2 The general operation areas for fermented meat products include raw material warehouses, packaging material warehouses, outer packaging workshops, finished product warehouses, etc.; quasi-clean operation areas include raw material thawing, selection, trimming, seasoning, marinating, forming or filling, smoking, fermenting, air-drying workshops, etc.; clean operation areas include post-processing, inner packaging workshops, and auxiliary areas with special cleanliness requirements, such as exposed semi-finished product storage areas awaiting packaging, inner packaging material temporary storage rooms after removing outer packaging and disinfection.

4.2.3 Material transport channels should be established, and the material passages between different clean operation areas should be separated. The heat-processing /fermentation room serves as the boundary between raw material processing areas and cooked material processing areas and should have a raw material entrance and a cooked material exit, leading respectively to the raw material processing area and the cooked material processing area. Livestock and poultry product cold storage and cutting, processing workshops should have connected enclosed passages or other effective measures to prevent cross-contamination.

4.2.4 Personnel passages should be established, and the personnel passages between different clean operation areas should be separated. If there are special circumstances requiring the use of specific passages, effective measures should be taken to prevent cross-contamination.

4.2.5 The storage places (warehouses) for raw materials and finished products should be set up separately and should not be directly connected. Livestock and poultry products should be stored in dedicated warehouses, and inner and outer packaging materials should be stored separately.

4.3 Interior Structure of Buildings

Workshops in quasi-clean operation areas and clean operation areas that are prone to condensation should have protective measures to prevent condensation water from dripping onto exposed products; ceiling designs should prevent condensation water from dripping vertically.

5 Facilities and Equipment

5.1 General Requirements

It should comply with the relevant provisions of GB 14881.

5.2 Facilities

5.2.1 Water Supply Facilities

5.2.1.1 The water used for manufacturing ice should meet the requirements of GB5749, and pollution should be avoided during the preparation, use, and storage of the ice.

5.2.1.2 Water supply hoses should not touch the ground, and siphoning or backflow phenomena should be prevented during use.

5.2.1.3 Water supply pipelines should not be located below drainage facilities.

5.2.2 Drainage Facilities

5.2.2.1 Drainage facilities should ensure smooth drainage and be able to withstand cleaning with hot alkali water.

5.2.2.2 Drain outlets should be equipped with devices such as filters to prevent waste from clogging the drainage pipes.

5.2.3 Cleaning and Disinfection Facilities

5.2.3.1 Containers for cleaning and disinfection should be made of non-toxic, corrosion-resistant, and easy-to-clean materials.

5.2.3.2 Quasi-clean operation areas and clean operation areas should have separate tool cleaning and disinfection zones to prevent cross-contamination.

5.2.3.3 Inner packaging materials should enter the inner packaging workshop through a temporary storage room for packaging materials or equivalent facilities (such as transfer windows) after removing their outer packaging, and disinfection devices should be installed in the temporary storage rooms or equivalent facilities (such as transfer windows).

5.2.3.4 Inner packaging workshops should ideally have air purification devices.

5.2.4 Waste Storage Facilities

5.2.4.1 Waste generated during the process should be stored in a dedicated area and should not be stored in other areas.

5.2.4.2 Waste should be classified and placed in leak-proof, corrosion-resistant covered containers specifically for waste, which should be clearly marked and not mixed with containers holding food.

5.2.5 Personal Hygiene Facilities

5.2.5.1 Quasi-clean operation areas and clean operation areas should have separate changing rooms connected to the workshop. If restrooms and shower rooms connected to the changing rooms are provided, they should be located outside the changing rooms, kept clean and sanitary, and their facilities and layout should not pose a potential contamination risk to the workshop.

5.2.5.2 Restrooms should use individual flushing facilities, be well-ventilated, have dry floors, be kept clean without odors, and have mosquito and fly prevention facilities; fecal discharge pipes should not be mixed with sewage discharge pipes inside the workshop.

5.2.5.3 Work shoes (boots) disinfection facilities should be set up at the entrance to the production workshop and appropriate places within the workshop, along with specialized non-manual hand washing facilities equipped with disinfection and hand drying facilities, preferably with adjustable water temperature. Specialized non-manual handwashing facilities and disinfection and hand drying facilities should be set up in heat-processing workshops and inner packaging workshops.

5.2.6 Ventilation Facilities

5.2.6.1 Mechanical exhaust facilities should be installed above food processing areas that generate a large amount of heat, steam, oil smoke, or strong odors.

5.2.6.2 Cooling rooms should have cooling and air circulation facilities.

5.2.7 Storage Facilities

Raw material warehouses, finished product warehouses, and packaging material warehouses should be established, and the stored items should have clear

identification, marking the material name, quantity, production date, batch number (if any), shelf life, time of entry into the warehouse, and the name of the producing enterprise, or record the relevant content through information technology. Attention should be paid to the separation of dry and wet materials in raw material warehouses.

5.2.8 Temperature and Humidity Control Facilities

Processes and locations with temperature and humidity requirements should control temperature and humidity according to process requirements, be equipped with monitoring devices, regularly check the monitoring devices, and perform calibration.

5.3 Equipment

5.3.1 Thermal processing equipment should meet process requirements, and the effectiveness of heating equipment should be verified when necessary.

5.3.2 Equipment, tools, and containers that come into contact with raw materials, semi-finished products, and finished products should avoid cross-contamination. Tools that are easily corroded or damaged should not be used. When it is necessary to use bamboo and wooden tools due to process requirements, their way of use, disinfection methods, storage methods, and replacement requirements should be clearly defined.

5.3.3 Equipment, tools, and containers in each area should be placed separately, and reasonable measures should be taken during the production process to prevent cross-contamination. Tools that need to go through the entire process with the product, such as intestine hanging carts, should not directly enter the cooked material processing area if they have not undergone heat-processing with the processed materials at the same time. All other equipment, knives, cutting boards, measuring instruments, etc., that are not necessarily required to go through the entire process should be strictly placed in separate areas.

5.3.4 The design, installation, operation, maintenance, and verification of sterilization pots and other pressure vessels should comply with national pressure vessel safety standards. Sterilization equipment should have temperature indicator devices.

6 Sanitation Management

6.1 General Requirements

It should comply with the relevant provisions of GB14881.

6.2 Sanitation Management of Factory Buildings, Facilities, and Equipment

6.2.1 Strictly implement the cleaning and disinfection system, have dedicated personnel responsible for inspection, and establish records. The effectiveness of disinfection should be monitored regularly, with the monitoring procedure referencing Appendix B.

6.2.2 The ground, ceiling or roof, facility equipment, walls, drainage troughs, etc., of the processing site should be cleaned and disinfected regularly, with the frequency determined based on actual sanitation monitoring conditions.

6.2.3 The inner packaging workshop should be cleaned and disinfected regularly, and the sanitary condition of the equipment should be inspected.

6.2.4 Product contact surfaces, including equipment and tools, should be cleaned and disinfected according to the frequency specified by the enterprise combined with actual production conditions. The frequency of cleaning and disinfection of tools that are in direct contact with products in the cleaning operation area should be no less than once every 4 hours.

6.3 Health Management and Hygiene Requirements for Food Processing Personnel

6.3.1 Food processing personnel should wear neat work clothes and other matching articles during work and ensure proper protection.

6.3.2 Food processing personnel should wash and disinfect their hands before entering the operation area as required, and wash and disinfect their hands again after working continuously for 4 hours. Hands should be washed and disinfected immediately if contaminated during operation.

6.3.3 If food processing personnel wear gloves during work, they should wash and disinfect their hands before wearing gloves, and the gloves must be surface-disinfected before touching food. Gloves should be replaced after continuous use for 4 hours. Gloves should be immediately replaced if contaminated or damaged during operation.

6.3.4 Food processing personnel should wear masks during work.

6.3.5 Food processing personnel at the product processing site should avoid behaviors that may cause product contamination, such as smoking, spitting, chewing, sneezing or coughing towards exposed food.

6.3.6 Non-production personnel are prohibited from entering the cooked meat product production area during production hours; in special circumstances, they should comply with the same hygiene requirements as production personnel when entering.

6.4 Work Clothes Management

6.4.1 Employees' work clothes and other matching articles should be kept separately from personal clothing and other items.

6.4.2 Work clothes and other matching articles should meet the hygiene requirements of the corresponding operation area. Work clothes and other matching articles equipped for different operation areas should be kept separately, with work clothes and hats distinguished by color or markings.

6.4.3 Work clothes and hats from different cleaning operation areas should be washed separately. Work clothes and hats from quasi-clean operation areas and clean operation areas should be washed and changed daily, while those from general

operation areas can have washing and changing frequencies established based on actual conditions. Work clothes and hats that still cannot meet the intended use after cleaning and disinfection should be promptly replaced.

6.4.4 Work clothes and other matching articles should not be worn outside the relevant operation areas.

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

7.1 General Requirements

It should comply with the relevant provisions of GB 14881.

7.2 Food Raw Materials

7.2.1 Livestock and poultry products should have animal quarantine certificates, and pork should also have a meat quality inspection certificate. Imported livestock and poultry products should have relevant proof documents for imported goods.

7.2.2 Livestock and poultry products should meet the requirements of GB 2707 and other related standards; spoiled or out-of-date raw materials must not be used in production.

7.2.3 Frozen livestock and poultry products should be stored in cold storage freezer at temperatures below -18°C, while fresh livestock and poultry products should be stored in refrigerated storage at temperatures between 0°C and 4°C.

7.2.4 Raw materials should be released from storage in the order of their production dates.

7.3 Food Additives

Nitrite should be managed with a dual-person, dual-lock system.

7.4 Fermentation Microorganisms

7.4.1 Fermentation microorganisms must comply with national standards or regulations, come with inspection reports or product qualification certificates to ensure their safety.

7.4.2 Fermentation microorganisms should be stored at suitable temperatures to maintain the vitality of the strains. Special storage facilities or equipment for preserving strains should be used to store the microorganisms.

8 Safety Control in the Production Process

8.1 General Requirements

It should comply with the relevant provisions of GB 14881.

8.2 Product Contamination Risk Control

Pollution should be avoided when thawing frozen meat. When thawing with water, different types of livestock and poultry products without sealed packaging should be thawed separately.

8.3 Control of Biological Contamination

8.3.1 Microbial Control in Food Processing

8.3.1.1 During production, processing, and storage, enterprises should effectively control temperature and time at key links closely related to food safety according to product process characteristics and form records.

8.3.1.2 The marinating room should not exceed 4°C, and the marinating time should be specified according to product characteristics. The freezer should not exceed -18°C. The inner packaging workshop should ideally not exceed 12°C. The environmental temperature of other production workshops should be controlled according to product processing technology requirements.

8.3.1.3 Heat-processing techniques should control the product's minimum core temperature and holding time, or control the temperature of the heating medium and

holding time. After heat-processing ends, control the product's residence time in the heat-processing workshop or the surface temperature of the product when leaving the heat-processing workshop.

8.3.1.4 During the production process of fermented meat products, the temperature, humidity, and time of pickling, fermentation, and drying processes should be controlled according to technological needs.

8.3.1.5 The cooling process should control temperature and time according to the technological needs of different products.

8.3.1.6 Secondary sterilization should control the temperature and time of sterilization according to product characteristics and microbial control requirements.

8.3.2 Cleaning and Disinfection

8.3.2.1 Cleaning and disinfection methods should be safe, sanitary, and effective. When using ozone disinfection, ozone concentration should be strictly controlled under the premise of ensuring sterilization effect; when using ultraviolet disinfection, the sterilization distance should be controlled and ultraviolet intensity should be monitored regularly; when using filtration sterilization, filter membranes or filter materials should be replaced regularly.

8.3.2.2 The number of personnel responsible for cleaning and disinfection should meet actual needs, all of whom should receive good training and be able to correctly use cleaning and disinfection tools and related reagents to ensure that the effects of cleaning and disinfection operations meet production requirements.

8.3.2.3 Appropriate measures should be taken when using cleaning agents and disinfectants to prevent product contamination.

8.3.2.4 Requirements for cleaning and disinfection can refer to Appendix A.

8.3.3 Microbial Monitoring in Food Processing

8.3.3.1 According to the product characteristics of cooked meat products, determine the key links for microbial monitoring in the environment and production process , which can refer to the requirements of Appendix B for monitoring.

8.3.3.2 The microbial monitoring procedure for heat-processed cooked meat products should include food hygiene indicator bacteria, such as total plate count and coliform group. The production process of low-temperature cooked meat products should appropriately increase sampling points and monitoring frequency.

8.3.3.3 The production process of fermented meat products should appropriately increase sampling points and monitoring frequency.

8.4 Control of Chemical Pollution

8.4.1 Effective measures should be taken during processing to control secondary harmful pollutants, such as polycyclic aromatic hydrocarbons, biogenic amine, heterocyclic amines, acrylamide, etc. For example, it is advisable to use liquid smoke, hardwood or wood chips with low resin when smoking; frying oil should meet the relevant provisions of GB 2716.

8.4.2 When cleaning and disinfecting surfaces of equipment, tools, and containers that come into direct contact with products, cleaners and disinfectants should be used reasonably, taking into account factors such as the material and purpose of the objects being cleaned and disinfected, to ensure that no chemical reactions occur on the product contact surfaces during cleaning and disinfection, avoiding chemical residue pollution.

8.4.3 Cleaners, disinfectants, pesticides, and other chemicals should be stored in fixed containers in a designated place with clear labeling, locked and managed by a dedicated person to prevent intentional or unintentional product contamination. Use records should include information such as user, time, area, usage, and concentration.

8.5 Control of Physical Pollution

It should comply with the relevant provisions of GB 14881.

8.6 Packaging

8.6.1 The packaging materials used must be non-toxic and should not affect product safety under specific processing, storage, and transportation conditions.

8.6.2 Gases used for gas packing should comply with the requirements for food industry processing aids specified in GB 2760.

9 Inspection

It should comply with the relevant provisions of GB 14881.

10 Food Storage and Transportation

10.1 It should comply with the relevant provisions of GB 14881.

10.2 Cooked meat products requiring refrigeration should be stored at temperatures between 0°C to 4°C, while those requiring freezing should be stored at temperatures not higher than -18°C. For cooked meat products stored using other methods, the storage temperature range must be clearly indicated and stored accordingly.

10.3 Temperature control during transportation should meet the temperature requirements for product transport. Refrigerated transport vehicles should be equipped with temperature monitoring devices, which should be regularly calibrated and maintained.

11 Product Recall Management

It should comply with the relevant provisions of GB 14881.

12 Training

It should comply with the relevant provisions of GB 14881.

13 Management System and Personnel

It should comply with the relevant provisions of GB 14881.

14 Records and Document Management

It should comply with the relevant provisions of GB 14881.

Appendix A

(Informative Appendix)

Guidelines for Cleaning and Disinfection Procedures

A.1 Use Principles

This appendix provides key considerations for cleaning and disinfection operations during the production process of cooked meat products. These guidelines may be adapted based on product characteristics, technological levels of the production process, and other factors. For specific reference, see Table A.1.

Table A.1 Example of Cleaning and Disinfection

No.	object	Steps
1	Object surfaces (including floors, ceilings, workbenches, walls, etc.)	a. Preparation for cleaning: sweep away dirt; b. Pre-rinse: rinse in the direction of drainage with warm water at 40°C～55°C; c. Foam cleaning: cover all areas to be cleaned with an alkaline foam cleaner, let the foam stay for 15 min～20 min; d. Manual scrubbing: scrub the dirt with materials that have a low risk of shedding and will not cause surface abrasion; e. Intermediate rinse: rinse in the direction of drainage with warm water at 40°C～55°C to remove all residues of the cleaner; f. Disinfection: Use disinfectants approved by the National Health Commission; g. Final rinse: Rinse with production water to remove disinfectants.
2	Air	Method 1: Disinfect the air with ozone (concentration ≥10 mg/m^3, 5 min～8 min); Method 2: Use a spatial spray system or mobile spray equipment for spray disinfection.
3	Production equipment in direct contact with products	a. Preparation for cleaning: remove meat scraps; b. Pre-rinse: rinse the equipment from top to bottom with warm water at 40°C～55°C; c. Foam cleaning: spray an alkaline foam cleaner, let the foam stay for 15 min～20 min; d. Manual scrubbing: scrub the dirt with a brush or scouring pad; e. Intermediate rinse: rinse the surface of the equipment from top to bottom with warm water at 40°C～55°C; f. Disinfection: use disinfectants approved by the National Health

No.	object	Steps
		Commission; g. Final rinse: rinse the surface of the equipment with production water from top to bottom to remove disinfectants. Note: for descaling cleaning, monthly switch to an acidic foam cleaner for step c to clean and brighten the equipment, other steps remain the same.
4	Rotors, orifice plates, and other equipment parts	a. Pre-rinse: simply clean the parts to be cleaned with warm water at 40°C～55°C to remove minced meat; b. Foam cleaning: spray an alkaline foam cleaner, let the foam stay for 15 min～20 min; for stubborn dirt, scrub with a stiff brush or scouring pad; or place the pre-cleaned parts into a water circulation cleaning tank, add an alkaline foam cleaner for cleaning; c. Intermediate rinse: rinse with warm water at 40°C～55°C; d. Disinfection: place the rinsed parts into a disinfection tank, use disinfectants approved by the National Health Commission; e. Final rinse: rinse the disinfectant with production water.
5	Turnover boxes, hoppers, cutting boards, etc.	a. Preparation for cleaning: remove meat scraps; b. Pre-rinse: rinse with warm water at 40°C～55°C; c. Foam cleaning: spray an alkaline foam cleaner, let the foam stay for 15 min～20 min; d. Intermediate rinse: rinse with warm water at 40°C～55°C; e. Disinfection: use disinfectants approved by the National Health Commission; f. Final rinse: rinse the disinfectant with production water.
6	Pipes	a. Preparation for cleaning: disassemble as much as possible, or use an online cleaning (CIP) system; b. Pre-cleaning: scrub the surface and inside/bottom with warm water at 40°C～55°C; c. Foam cleaning: clean with a brush or scouring pad dipped in an alkaline foam cleaner; d. Manual scrubbing: Scrub from top to bottom with a scouring pad dipped in warm water at 40°C～55°C; e. Disinfection: use disinfectants approved by the National Health Commission; f. Final cleaning: rinse clean from top to bottom with clear water.
7	Heat sealers, metal detectors, stretch film packaging machines, and other non-direct contact product production equipment	a. Preparation for cleaning: remove all products before cleaning begins; b. Pre-cleaning: scrub the surface and inside/bottom with warm water at 40°C～55°C; c. Foam cleaning: Clean with a brush or scouring pad dipped in an alkaline foam cleaner; d. Manual scrubbing: scrub from top to bottom with a scouring pad dipped in warm water at 40°C～55°C; e. Disinfection: use disinfectants approved by the National Health Commission; f. Final cleaning: remove disinfectants from top to bottom with a scouring pad.
8	Smokers, smoking vehicles, smoking rods, etc.	a. Preparation for cleaning: remove all products before cleaning begins; b. Pre-rinse: rinse the surface of equipment and utensils with warm water at 40°C～55°C; c. Foam cleaning: use a high-concentration heavy-duty alkaline cleaner to quickly wet and penetrate heavy soils attached to smoking vehicles and rods; clean in conjunction with the cleaning program required by the smoker's manual, spraying a high-foam heavy-duty alkaline cleaner on the inner walls and top of the smoker for cleaning;

No.	object	Steps
		d. Final rinse: rinse the cleaner with production water. Note: for descaling cleaning, monthly switch to an acidic foam cleaner for step c to clean and brighten the equipment, other steps remain the same.
9	Personnel	Hand cleaning and disinfection: a. Cleaning: thoroughly wet hands with running water, thoroughly wash with hand cleaner for at least 20 seconds; b. Rinsing: thoroughly rinse hands with running water; c. Disinfection: it is recommended to use a no-rinse hand disinfectant for hand disinfection (or use sodium hypochlorite disinfection, alcohol disinfection). Shoe disinfection: disinfect using the disinfection facilities at the workshop entrance.
Note: when disinfecting surfaces (including floors, ceilings, workbenches, walls, etc.), equipment, and tools with hot water, first scrape off filth on the surface, then rinse with a high-pressure water gun, and finally rinse with hot water ≥82°C for more than 2 minutes.		

A.2 Requirements for Cleaning and Disinfection Supplies

A.2.1 Warm water: temperature between 40°c to 55°c, hot water: temperature ≥82°c, with water pressure meeting cleaning requirements. Equipment and utensils suitable for disinfection with hot water should prioritize the use of hot water for disinfection.

A.2.2 Cleaners: alkaline foam cleaners, acidic foam cleaners, hand cleaners, etc. Only cleaners permitted by relevant regulations should be used for cleaning.

A.2.3 Disinfectants: equipment disinfectants, hand disinfectants, etc. Only disinfectants permitted by relevant regulations should be used for disinfection.

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

A.3 Air Cleanliness Requirements in Cleaning Work Areas

According to GB 50687, establish air cleanliness level requirements for cleaning work areas.

A.4 Requirements for Cleaning and Disinfection Facilities

Select appropriate cleaning and disinfection facilities based on product production needs. This includes cleaning and disinfection systems, chemical storage areas, ozone generators, non-

manual washing facilities, disinfectant dispensers, mobile foam vehicles, space spray disinfection systems, or mobile spraying equipment.

A.5 Cleaning and Disinfection Requirements

A.5.1 The floor should be cleaned at least once a day using a cleaner, and hot water or steam can be used during cleaning to effectively remove grease.

A.5.2 Under normal production conditions, select appropriate cleaners and disinfectants to clean and disinfect the tools and utensils used in the production process at least once a day. Tools and utensils that become contaminated should be cleaned and disinfected immediately.

A.5.3 Employees entering the production area should clean and disinfect their hands and work shoes (boots).

A.5.4 Equipment that comes into direct contact with the product, such as hoppers and conveyors, should be cleaned and disinfected at the end of each shift. Pipes that come into direct contact with the product should be cleaned and disinfected at least once every 24 hours. If the production workshop environment temperature is consistently controlled at 4°C or below, such as in the marinating room, cleaning and disinfection can be done once every 48 hours. When production equipment has special cleaning and disinfection requirements, enterprises should formulate the frequency of cleaning and disinfection based on actual production conditions.

A.5.5 Under normal production conditions, tools and utensils in the cleaning work area that come into direct contact with the product should be disinfected no less than once every 4 hours, and employee hands should be disinfected once every 2 to 4 hours. Tools and utensils or hands that become contaminated should be cleaned and disinfected immediately.

A.5.6 The air in each shift should be disinfected with ultraviolet radiation or ozone until it meets the requirements of production hygiene. In continuous production, ensure that the production workshop air is disinfected at least once a day.

A.5.7 After raw materials are released from storage, clean the vacated storage spaces (shelves), wipe shelves, sweep floors, clear away debris, and remove ice formed from defrosting. It is advisable to clean and disinfect after power outages and rise of overall temperature once a year.

A.5.8 Regularly verify the effectiveness of disinfection to ensure compliance with production hygiene requirements.

Appendix B

(Informative Appendix)

Guidelines for Microbial Monitoring Procedures in the Production Process of Cooked Meat Products

B.1 This appendix provides the requirements for microbial monitoring of the environment and products during the processing of cooked meat products. Enterprises may adjust these requirements appropriately based on factors such as product characteristics and technological levels of production.

B.2 Enterprises should conduct inspection activities according to internal quality control requirements, verify the effectiveness of cleaning, and monitor raw materials, semi-finished products, finished products, and the production environment. Refer to Table B.1 for implementation.

Table B.1 Microbial Monitoring Requirements During the Production Process of Cooked Meat Products

Monitoring Item		Sampling Points [a]	Monitoring Microorganisms [b]	Monitoring Frequency [c]	Monitoring Indicator Limits
Environmental Microbial Monitoring	Surfaces in contact with food	On the hands and work uniforms of food processing personnel, containers for holding products, conveyor belts, surfaces of workbenches, and other equipment surfaces that come into direct contact with food	Total bacterial count, coliform group, etc., Listeria monocytogenes[d]	The verification of cleaning effectiveness should occur after cleaning and disinfection, with additional monitoring at least once a month.	set monitoring indicator limits in line with actual production conditions
	Contact surfaces adjacent to food or food contact surfaces	On the exterior surfaces of equipment, workbench supports, work equipment supports, control panels	Total plate count, coliform group, etc., Listeria monocytogenes[d]	at least once a month	set monitoring indicator limits in line with actual production conditions
	Environmental Air	Locations next to exposed products	Total plate count, molds [e], etc.	at least once a month	set monitoring indicator limits in line with actual production conditions
	Drainage Facilities	Drainage ditches of various workshops, especially low-	Listeria monocytogenes [d]	at least once a month	set monitoring indicator limits in line with actual

		temperature workshops such as cooling rooms, etc.			production conditions
Microbial Monitoring for Process Products		At the end of the production line for products to be packaged	Total plate count, coliform group, etc., Listeria monocytogenes [d]	at least once a month	For total plate count and coliform group, set monitoring indicator limits in line with actual production conditions; Listeria monocytogenes must not be detected.

a Sampling points can be selected based on the characteristics of the food and the actual conditions of the processing process. Surface microbial monitoring refers to sampling according to method A.3 in GB15982, and environmental air microbial monitoring refers to sampling by the "natural sedimentation method" in GB/T 18204.3.
b One or more hygiene indicator microorganisms can be selected for monitoring as needed.
c The monitoring frequency can be determined based on the risk associated with the specific sampling point.
d Fermented meat products can be monitored with emphasis.
e In regions with high environmental humidity, if mold is detected, mold monitoring should be increased, fermented meat products may not require mold monitoring.

B.3 Enterprises that carry out microbial monitoring should be equipped with corresponding testing equipment, facilities, and reagents. The quantity of testing equipment should be commensurate with the production capacity of the enterprise.

B.4 When establishing an environmental microbial monitoring program, it should be implemented in accordance with the relevant provisions of GB 14881. The collection and handling of samples, as well as testing methods, should be determined in combination with the actual production situation.

B.5 Environmental microbial sampling points should primarily focus on cleaning work areas, and operation areas with higher risks of raw material contamination, such as blending areas and marinating rooms, can be monitored as needed.

(End Translation)

Attachments:

No Attachments.