Annex 2

New coronavirus prevention and control in the production and operation of cold chain food disinfection technology guide

(polished machine translation)

1. Basis and scope of application

In order to standardize and guide the prevention and control of the new corona virus in the cold chain food production and operation process, and prevent food and food packaging materials from being contaminated by the new corona virus, refer to the "Guidelines for the Prevention and Control of the New Corona Pneumonia Epidemic of Meat Processing Enterprises" issued by the State Council's Joint Prevention and Control Mechanism for the New Corona Pneumonia Epidemic ”(Joint Prevention and Control Mechanism Zongfa [2020] No. 216), “Emergency Notice on Strengthening the Nucleic Acid Testing of New Coronavirus in Cold Chain Foods” (Joint Defense and Joint Control Mechanism Zongfa [2020] No. 220), “Agricultural Trade (Market Trade)) Market New Coronary Pneumonia Epidemic Prevention and Control Technical Guide (Joint Prevention and Control Mechanism Zongfa [2020] No. 223), "New Coronavirus Pneumonia Prevention and Control Plan (Seventh Edition)" (Joint Prevention and Joint Control Mechanism Zongfa [2020] No. 229)), as well as relevant national food safety standards and the "New Coronary Pneumonia and Food Safety: Guidance for Food Enterprises" (April 2020) issued by the Food and Agriculture Organization of the United Nations/World Health Organization and other documents to formulate this guide.

This guide is applicable to cold chain foods that are processed by freezing and refrigeration methods, and the products are always in a low temperature state from the factory to the sale. It is used to guide the normal operation of food production and operation units and individuals during the normalization of the prevention and control of the new corona pneumonia epidemic. Disinfection of cold chain foods from high-risk areas of the new corona pneumonia epidemic at home and abroad during the process of loading and unloading, transportation, storage and sales.

Relevant units and individuals of food production and operation strictly abide by laws and regulations and relevant national food safety standards, and implement local competent authorities' regulations on the prevention and control of the new corona pneumonia epidemic are the prerequisites for the application of this guide.

2. Cleaning and disinfection during production and processing

During the production and processing of cold chain food, an effective cleaning and disinfection system should be formulated for processing personnel, production environment, and related equipment and facilities based on the characteristics of food raw materials and product characteristics, and the characteristics of production and processing technology, and the implementation and effects of disinfection measures should be regularly reviewed Evaluation.

2.1 Food production and processing personnel

Food production and processing personnel entering the work area should confirm that they are healthy and personal protection meets relevant requirements, and regularly use alcohol-containing no-clean disinfectants for hand disinfection.

2.2 Outer packaging of raw materials and semi-finished products

2.2.1 The outer packaging of cold-chain food raw materials and semi-finished products from high-risk areas (countries) of the new corona pneumonia epidemic should be strictly and effectively disinfected before entering the enterprise or warehouse.

2.2.2 Tools and equipment (such as transfer boxes, spoons, pliers, etc.) used to transport cold chain food raw materials or semi-finished products should be cleaned and disinfected in time after each use.

2.2.3 For food raw materials and semi-finished products from foreign epidemic areas that have been tested and contaminated by the new coronavirus, they should follow the "Emergency Notice on Strengthening the Nucleic Acid Testing of New Coronavirus in Cold Chain Foods" (Joint Prevention and Control Mechanism Zongfa [2020] No. 220) In the new coronavirus nucleic acid positive food handling guidelines.

2.3 Production and processing equipment and environment

2.3.1 Equipment and appliances. Utensils used before and after processing should be placed separately and kept properly to avoid cross contamination. All equipment and utensils after production and processing (or when necessary during production and processing) should be effectively cleaned and disinfected, and the selected cleaning and disinfection procedures and disinfectants should be able to effectively kill the new coronavirus.

2.3.2 Environment. Increase the frequency of disinfection in high-risk areas such as the production workshop environment of each stage of cold chain food raw material processing, the workshop environment of each production stage of ready-to-eat and cooked food, and the storage cold storage. The environment must be thoroughly cleaned and disinfected during the production process and after production. In particular, it is necessary to strengthen the frequency of cleaning and disinfection of various operating surfaces, contact surfaces/points (such as door handles, switches, appliance handles, telephones, toilets, etc.) that people touch during production and processing, and crowded environments.

2.3.3 For all kinds of meat, aquatic products, egg products and other foods rich in protein and fat, it is difficult to remove dirt due to the easy formation of dirt on the surface of the contact object, and the production and processing environment is usually low in temperature and high in humidity, in order to improve the disinfection effect , Minimize the amount of disinfectant used, shorten the action time of the disinfectant on the surface of the object, all meat, aquatic products, egg products and other foods rich in protein and fat contact with the container, equipment or environmental object surface must be It can be disinfected after thorough cleaning.

2.3.3.1 Selection of cleaning agent

Commonly used food processing equipment and environmental cleaning agents include alkaline solutions, salt solutions (such as phosphate, carbonate, silicate), acid (such as citric acid, phosphoric acid) solutions and synthetic detergents (such as anions, cations, non- Ionic alkaline detergent) and so on. Among them, alkaline solution is the most commonly used cleaning solution in the processing environment of meat, aquatic products and egg products. At present, the most commonly used cleaning agent for meat processing companies is 1.5% sodium hydroxide solution, which can saponify fat and hydrolyze protein deposits. In addition, various synthetic detergents can also effectively remove meat deposits, fats and dirt. They should be in full contact with the surface to be cleaned at an appropriate temperature and kept for a certain period of time before being rinsed

with water. Another way to saponify fat and facilitate cleaning is to prepare a protease solution that can decompose protein with a low-concentration alkaline solution. Since the enzyme is inactivated at high pH and high temperature, the temperature and pH value of the enzyme solution are moderate, which can greatly reduce the corrosion of the surface to be cleaned.

2.3.3.2 Cleaning procedures

(1) To save detergent and water, first use physical methods to remove the dirt on the surface.

(2) Use water to further rinse off the dirt. In order to reduce the generation of aerosols, high-pressure water is not used as much as possible.

(3) Apply an alkaline solution or a synthetic detergent/enzyme solution at a temperature of 50-55°C to the surface to be cleaned. After contacting for 6-12 minutes, clean and wipe the surface to be cleaned. In order to make the cleaning agent fully contact the surface to be cleaned, it is best to use foaming detergent to clean the vertical surface.

(4) Rinse the alkaline solution or detergent with clean water.

(5) Alkaline solution cannot remove scale or rust spots. Acid (such as phosphoric acid, hydrochloric acid or organic acids such as citric acid, gluconic acid) can be used to remove scale or rust spots.

2.3.3.3 Disinfection

(1) In order to improve the disinfection effect and prevent insufficient contact between the disinfectant and the surface of the object and reduce its activity, all equipment or environmental surfaces to be disinfected must be thoroughly cleaned according to the above procedures before they can be disinfected. Commonly used disinfectants include chlorine, iodine-containing disinfectants or quaternary ammonium salt solutions.

(2) Whether the disinfected surface needs to be cleaned depends on the disinfectant used. Quaternary ammonium salt disinfectants can remain on the equipment for a long time, so quaternary ammonium salt and iodine-containing disinfectants need to be thoroughly rinsed with water after use.

(3) If the surface of the equipment is corroded after disinfection, the corroded area can be coated with oil for protection. If the application oil is a food-grade product, it does not need to be removed. If it is a non-food-grade oil, the oil should be removed before the next processing shift begins.

(4) Use the in-situ cleaning method to continuously clean the moving conveyor belt and other parts of the production and processing equipment.

3. Cleaning and disinfection during transportation and distribution

3.1 Staff

During the cold chain food delivery process, drivers and transport attendants should maintain personal hand hygiene, and alcohol-based hand sanitizers, disinfectants and paper towels should be provided in the car to ensure that hands are disinfected regularly without washing hands with clean water.

3.2 Object surface

Drivers should wash or disinfect their hands before transferring or submitting delivery documents to employees. To avoid washing the returned items, the documents are best placed in disposable

containers and packaging materials. For reusable containers, regular and appropriate sanitary cleaning and disinfection should be carried out.

Surfaces that are most likely to be contaminated by viruses, such as steering wheels, door handles, and mobile devices that are frequently touched by human hands, should be disinfected regularly.

3.3 Transportation

In order to avoid contamination of cold chain food, drivers must ensure that transport vehicles, handling tools and containers are clean and regularly disinfected. When cargo is mixed, when loading the vehicle, separate food from other cargo that can cause pollution as much as possible. Before and after the vehicle carries a batch of goods, the parts in the vehicle that may be touched by hands, especially the inside and outside of the vehicle compartment, must be thoroughly disinfected.

4. Cleaning and disinfection during sales operation

4.1 Personnel in the cold chain food sales and operation area shall maintain good hygiene practices and frequently use hand sanitizer to wash and disinfect their hands to keep their hands clean and hygienic.

4.2 Clean and disinfect all kinds of surfaces, handles (such as door handles, refrigeration equipment handles, container handles, cart handles, etc.), buttons (such as calculators, electronic weighing device buttons, etc.) frequently touched by human hands in time. After the operation is completed every day, the operation area shall be fully disinfected.

4.3 It is convenient for customers to wash their hands and disinfect. It should be ensured that the hand washing facilities in the store are operating normally and equipped with quick-drying hand disinfectants; when conditions permit, they can be equipped with induction hand disinfection facilities.

5. Cleaning and disinfection of catering processing

5.1 The catering industry should regularly clean and disinfect all cold chain food contact surfaces, outer packaging and utensils, and strengthen the cleaning and disinfection of tableware (drinks) and condiment containers.

5.2 Do a good job of disinfecting the surface of high-frequency contact objects, and perform various equipment, areas, contact surfaces/high-frequency contact points (such as countertops/clips/service appliances/open self-service display stands/doorknobs), trash cans, sanitary ware, etc. More frequent cleaning and disinfection. At the same time, increase the frequency of cleaning and disinfecting the work clothes of the staff.

5.3 Ensure that the hand washing facilities in the store are operating normally and are equipped with quick-drying hand disinfectants; when possible, they can be equipped with induction hand disinfection facilities.

6. Commonly used disinfectants in production and operation and methods of use

The disinfectants commonly used in the production, transportation, and sales of cold chain food and their use methods are shown in the attached table.