

Hygiene Management Manual for Large-scale Food Preparation Facilities

(Annex to Notice Ei-shoku No. 85 of 24 March 1997)

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I Purpose and Scope

This manual, developed with the aim of preventing food poisoning in large-scale food service facilities, explains HACCP-based critical control points to be monitored during food preparation.

They include:

- i) Thorough control of raw material receiving and preliminary processing;
- ii) Cooking foods to be heat-treated through to destroy food-poisoning bacteria and viruses (hereinafter 'food-poisoning bacteria');
- iii) Comprehensive precautions against cross-contamination of cooked foods and foods intended for raw consumption; and
- iv) Thorough temperature control of raw materials and prepared foods to prevent the growth of adhering food-poisoning bacteria.

Large-scale food service facilities need to establish a hygiene management system to inspect these critical control points, record inspection results, and take necessary measures for improvement and correction. They should also increase knowledge and awareness of food hygiene among those working there to ensure compliance.

This manual applies to food preparation facilities that provide 300 servings or more of the same menu at a time or 750 servings or more of the same menu per day.

II Critical Control Points

1. Control of raw material receiving and preliminary processing

- (1) Concerning raw materials, record the item name, supplier's name and address, producer's (or manufacturer's or processor's) name and address, lot information (production date or lot number), and the date of receiving and keep the record for 1 year.
- (2) Have suppliers of raw materials submit results of microbiological, physical and chemical testing of the raw materials they conduct regularly. Use the results to evaluate the appropriateness of using the raw materials by, for example, consulting a public health centre. If they are judged to be unsuited as ingredients, take appropriate measures such as changing suppliers. Keep the test results for 1 year.
- (3) Concerning foods intended for raw consumption including dried foods and foods to be consumed in small amounts (except milk, fermented milk products, custard pudding, and other foods that are sterilized and packaged in containers), check the hygiene management system of the manufacturer/processor by referring to Food Hygiene Inspection Forms issued

by public health centre and/or self-management records of the manufacturer/processor; and also confirm that the manufacturer/processor has appropriate measures in place to reduce the risk of norovirus infection by, for example, checking the health condition of those working there.

- (4) Receiving of raw materials must be attended by a person engaged in food preparation, who must inspect at the receiving inspection site the quality, freshness, the core temperature of the item (if it was transported by a supplier, refer to Annex 1 and check that appropriate temperature control was maintained during the transport), contamination by foreign materials, etc. and keep records of the inspection results.
- (5) When receiving fresh foods such as meat, seafood, vegetables (except canned foods, dried foods, seasonings, and other food items that can be kept at normal room temperature), receive only the amount of such items that will be used up at a time on the day of receiving.
- (6) Clean vegetables and fruits intended for raw consumption thoroughly under running water of a quality suitable for processing food^{*1} (hereinafter 'running water'). For the procedure, refer to Annex 2. If necessary, disinfect them with sodium hypochlorite or other disinfectants^{*2} and rinse them thoroughly under running water. Be sure to do so, particularly if the facility intended to provide meals to infants, young children, elderly people and those who with lowered immune systems serves foods intended for raw consumption (excluding, however, cases where skins of such foods are removed before serving).

2. Control of cooking temperatures for foods to be heat-treated

When cooking foods, make sure, by using a probe thermometer or the like, that the item is cooked to a minimum 75°C for at least 1 minute (or 85 to 90°C for at least 90 seconds when cooking foods such as bivalves that pose a possible risk of being contaminated by norovirus). For the procedure, refer to Annex 2. Record temperature and time measurements.

3. Prevention of cross-contamination

- (1) Personnel, including temporary workers, who may come into contact with foods, for example when preparing foods, placing foods on plates, or serving foods to people (hereinafter 'personnel engaged in food preparation') must thoroughly wash their hands twice with soap and running water on the following occasions (or once, but carefully, on other occasions) in order to disinfect them. For the procedure, refer to Annex 2. In principle, disposable gloves

¹ Formerly referred to as 'potable water.' The wording has been changed as a result of an amendment to the 'Standards and criteria for food and food additives, etc.' (Public Notice of the Ministry of Health and Welfare No. 370 of 1959). For the definition of the term, refer to "Section 1 Food-B Criteria for manufacturing, processing and cooking food in general" of the said public notice.

² Sodium hypochlorite solutions or chlorous acid water that is as effective as the former (not for use on mushrooms), sodium chlorite solutions (for use on vegetables for raw consumption only), peracetic acid formulations, hypochlorous acid water, and organic acid solutions that can be used as food additives. When using any of these, be sure to comply with the 'Standards and criteria for food and food additives' stipulated in the Food Sanitation Act.

should also be changed on the following occasions.

- i) before starting work; after using toilet facilities
 - ii) when moving from a potentially contaminated working area to a contamination-restricted working area
 - iii) immediately before starting work involving direct contact with foods
 - iv) before touching foods or equipment after touching foods that may be a source of bacterial contamination, such as raw meat, raw seafood, and eggshells
 - v) before serving foods to people
- (2) Store raw materials in storage facilities installed in dedicated storage areas that are separated from other areas with dividing walls or the like, separately by category (meat, seafood, vegetables, etc.).

When storing, transfer contents from original packaging to clean containers fitted with lids or take other measures to prevent contaminants on packaging from entering the storage facilities. Also take measures to prevent cross-contamination of raw materials.

- (3) Preliminary processing of raw materials must be performed in designated potentially contaminated working areas to ensure that contamination-restricted working areas will not be contaminated.
- (4) Use dedicated equipment (knives, cutting boards, containers, etc.) for each use and food category (when performing preliminary processing, for seafood, meat, and vegetables; when preparing foods, for cooked foods, vegetables for raw consumption, and seafood for raw consumption). Make sure that they are not mixed up.
- (5) After using equipment and containers, wash them entirely under running water, disinfect thoroughly by heating at 80°C for at least 5 minutes or by an alternative method having the equivalent effect,³ dry, and store hygienically, for example, in clean cabinets. For the procedure, refer to Annex 2.

Washing and disinfecting equipment and containers in food preparation areas should, in principle, be conducted after all foods have been moved out of the food preparation areas.

Where necessary, disinfect equipment and containers in boiling water by the same way as above while they are in use so that they can be kept clean. In this case, make sure that washing water etc. does not splash around. Never use equipment and containers that were used to handle raw materials without disinfecting them to handle cooked foods.

- (6) Because contaminants are more likely to remain unremoved on cutting boards, colanders, and wooden equipment, pay special attention when disinfecting such equipment.⁴ Use of wooden

³ Some chlorine disinfectants (sodium hypochlorite, chlorous acid water, hypochlorous acid water, etc.) and ethanol disinfectants are expected to inactivate norovirus. When using any of these, be sure to follow the product instructions regarding concentrations and methods. Disinfection by immersion is recommended. If it is difficult to do so, impregnate a nonwoven fabric cloth or the like with the disinfectant and wipe clean with it.

(Reference) FY 2015 Study Report on Inactivation of Norovirus

(<http://www.mhlw.go.jp/file/06-Seisakujouhou-11130500-Shokuhinanzendu/0000125854.pdf>)

⁴ Equipment that is difficult to wash thoroughly, such as large cutting boards and large colanders, must be disinfected by immersion in chlorine disinfectants such as chlorous acid water and sodium hypochlorite.

equipment should be avoided as much as possible.

- (7) Kitchen machinery such as food processors and vegetable choppers must be disassembled, washed/disinfected,⁵ and dried at least once a day.
- (8) Separate sinks should, in principle, be installed for each use to prevent cross-contamination. Separate sinks must be installed for foods to be heat-treated, foods for raw consumption, and for washing equipment. Wash and disinfect⁵ sinks to keep them clean, thereby preventing cross-contamination.
- (9) Handle foods and mobile equipment at a height of at least 60 cm above the floor to prevent contamination from floor splashes. Foods placed in food holding containers that prevent the content from directly contacting contaminants such as floor splashes should be handled on a stand with a height of at least 30 cm.
- (10) Cooling of cooked foods and temporary storage of preliminary processed foods in food preparation areas should be performed in a clean environment to prevent cross-contamination.
- (11) Store prepared foods in clean containers with lids closed to prevent cross-contamination.
- (12) Use water of a quality suitable for food processing. Check the water quality (colour, turbidity, smell, foreign matter); and in addition, if water from storage tanks is used or sterilized/filtered well water or the like is used, check also that the level of free residual chlorine in such water is not less than 0.1 mg/L. Check the water quality before starting work and after food preparation finished and record the results.

4. Temperature control of raw materials and prepared foods

- (1) Store raw materials in cabinets, freezers, or refrigerators at appropriate temperatures specified in Annex 1. Record the temperatures in the room and freezers/refrigerators at the point when the raw materials are placed into storage.
- (2) Raw materials that have been taken out of freezers/refrigerators should be promptly handled for preliminary process and cooking. Foods for raw consumption should be prepared for serving immediately after the preliminary process.
- (3) Foods other than those to be served immediately after preparation process must be kept at 10°C or below; or at 65°C or above to inhibit the multiplication of food-poisoning bacteria. (See Annex 3.)
 - i) When cooling foods that have been cooked, cool them quickly to minimize the time they are in the temperature zone optimal for the growth of food-poisoning bacteria (approx. 20 to 50°C). Use appropriate methods (e.g. use chilling equipment, or divide the food into smaller portions and keep them in hygienic containers in a clean place) to decrease the core temperature of the food to approx. 20°C within 30 minutes (or approx. 10°C within 60 minutes). Record the time cooling begins and ends.

⁵ Heating at 80°C for at least 5 min. or by an alternative method having the equivalent effect (See note 3.).

ii) Try to serve prepared, ready-to-eat foods as quickly as possible.

When serving foods within 30 minutes after preparation process, record the time the preparation process finished. If this period exceeds 30 minutes, follow the procedure (a) or (b) below:

a. Place foods to be served hot in hot holding units such as food holding containers immediately after preparation process. In this case, record the time the food is placed in the hot holding unit.

b. Keep foods other than (a) at 10°C or below until serving. In this case, record the time the food was placed in the cold holding unit, the temperature in the unit, and the time the food was taken out of the unit.

iii) During transport, make sure to maintain appropriate temperature control by using delivery vehicles with cold/hot holding equipment or using other methods to keep the food at 10° or below; or at 65°C or above. Record the delivery departure and arrival times.

For foods to be served at a temperature below 65°C, record the time the food was placed in a cold holding unit and the temperature in the unit.

iv) At facilities serving foods that have been received from central food preparation facilities or the like, foods, other than those to be served hot, that will be kept for 30 minutes or longer until serving, must be kept at 10°C or below until serving. In this case, record the time the food was placed in the cold holding unit, the temperature in the unit, and the time the food was taken out of the unit.

(4) It is recommended that prepared, ready-to-eat foods are consumed within 2 hours after preparation process.

5. Other control points

(1) Design and construction of facilities and equipment

i) Food preparation facilities must be completely separated from dirty areas such as cesspits, animal housing facilities, and waste collection sites, by using dividing walls or the like.

ii) All doors to the facility and windows should be closed as much as possible. All openings (e.g. doors and windows) that open to the outside should be fitted with fly screens, air curtains, automatic doors, etc. to prevent the entry of rats and insects.

iii) Areas for each food preparation process should be clearly identified as 'potentially contaminated working areas' (receiving inspection site, raw material storage area, preliminary processing area), or 'contamination-restricted working areas,' which is further classified into 'clean working areas' (kitchen) and 'very clean working areas' (cooling area, kitchen, and ready-to-eat food storage area). It is recommended to establish such fixed areas, which should be clearly distinguished from each other by using dividing walls, color-coding floors, or by marking boundary lines with tape.

iv) Install hand-washing facilities and footwear sanitising units (only if changing footwear is difficult) in front of the entrance of each working area. It is recommended to install

sensor-operated hand-washing facilities that do not require direct contact of the hands with them (e.g. taps and handles) for operation.

- v) Prepare an appropriate number of equipment and containers and locate them in appropriate places taking personnel traffic patterns into account.
- vi) If water is used on floor surfaces, floors should be properly sloped (approx. 2 in 100) and provided with floor drains (with a slope of approx. 2 to 4 in 100) to facilitate effective drainage.
- vii) Drains of sinks etc. should be so constructed that waste water will not splash around.
- viii) In order to store all mobile equipment and containers in a hygienic way, install storage facilities that are designed to protect against contamination from the outside.
- ix) Toilets etc.
 - a. Toilets, staff rest rooms, and changing rooms must be separate from food handling areas with dividing walls in between. It is recommended to locate these areas 3 metres or more from food preparation areas.
 - b. Toilets must be provided with dedicated hand-washing facilities and footwear. It is recommended to provide separate toilets for personnel engaged in food preparation.
- x) Other
 - Introducing the dry kitchen system into food preparation facilities is highly recommended.

(2) Maintenance of facilities and equipment

- i) Keep facilities and equipment in good repair. Clean at least once per day the facility's floor surfaces (including floor drains) and interior walls from bottom to a height of 1 metre and areas of which that are touched by hand. Clean at least once per month the facility's ceilings and interior walls from a height of 1 metre to top. Where necessary, wash and disinfect these areas. Cleaning of the facility must be carried out after all food items have been moved out of the food preparation area to be cleaned.
- ii) Patrol the facilities to check for the presence of rats and insects at least once per month. Eradication of such pests must be carried out at least every 6 months and every time the infestation was found. Keep the eradication record for a period of 1 year. The facility and surrounding areas must be kept in good condition and repair in order to prevent potential breeding sites of rats and insects.
 - When using rodenticides or insecticides, take extra care not to contaminate foods with them.
- iii) Do not allow unauthorised outsiders to enter the premises and do not leave any items unnecessary for food preparation on the premises in order to keep the premises clean and hygienic.
- iv) Do not bring raw materials contained in delivery packaging into contamination-restricted working areas.
- v) There must be enough ventilation to prevent excess humidity and temperature extremes. It

is recommended to keep the humidity at 80% or below and the air temperature at 25°C or below in food preparation areas.

- vi) Hand-washing facilities must have hand soap, nail brushes, paper towel, hand sanitisers, etc. that are supplied regularly to be available at all times.
- vii) If you use well water or water other than that supplied by water supply businesses, ensure that it is tested for quality at least twice per year by a public inspection agency or a contracted inspection agency accredited by the Minister of Health, Labour, and Welfare. If the test judges the water you use as non-potable, immediately receive instructions from the chief of a public health centre and take appropriate measures. Keep the records of test results for a period of 1 year.
- viii) In order to keep water storage tanks clean and hygienic, they must be cleaned at least once per year by commissioned experts. Keep certificates of cleaning services for a period of 1 year.
- ix) Keep toilets facilities clean and hygienic by cleaning and disinfecting them using disinfectant on a regular basis, for example, before, during, and after working.^{*6}
- x) If someone such as a user of the facility has vomited on the premises of the facility (including eating establishments set up in the stands and communal spaces such as lobbies), clean up the vomit using disinfectant properly and promptly^{*6} in order to prevent the spread of norovirus to other users and personnel engaged in food preparation as well as to protect the facility against contamination.

(3) Storage of food samples for inspection

For food inspection, place and seal up about 50 g each of ingredients and cooked/prepared foods in separate clean containers (plastic bags etc.) and preserve them at a temperature of -20°C or less for more than 2 weeks. In this instance, note that ingredients must not be washed or disinfected after purchase, and cooked/prepared ready-to-eat foods must be in the 'after-serving' condition.

(4) Hygiene control of personnel engaged in food preparation

- i) Personnel engaged in food preparation should maintain hygienic living conditions for themselves by proper use of toilet and bathing facilities. During norovirus outbreaks, they should be careful not to become infected with the virus by taking precautions such as avoiding eating undercooked foods. They also need to take measures, such as thorough hand washing, not to become a source of contamination of facilities and foods, while also be careful about their physical conditions to stay fit.
- ii) Personnel engaged in food preparation must report their fitness to the hygiene supervisor before starting work every day. The hygiene supervisor must keep a record of the reporting.

⁶ Refer to "Q&A on norovirus" (in Japanese) (created by the Ministry of Health, Labour and Welfare).

- iii) Personnel engaged in food preparation, including temporary staff, must have a medical check-up on a regular basis and a stool test at least once per month. The items to be analysed in the stool test⁷ must include the presence of enterohemorrhagic *Escherichia coli*. From October to March, stool testing for norovirus should be performed at least once per month or as necessary.⁸
- iv) It is recommended that a person engaged in food preparation who has been found to be an asymptomatic norovirus carrier take appropriate measures such as avoid being engaged in work involving direct contact with food until a stool test has found the person is no longer a norovirus carrier.
- v) Personnel engaged in food preparation with diarrhoea, vomiting, fever, or infected wounds on hands must not work with food.
- vi) Personnel engaged in food preparation with certain symptoms such as diarrhoea or vomiting must promptly undergo a medical examination to find whether they have contracted an infectious disease. Personnel engaged in food preparation who have been diagnosed with an infectious disease caused by norovirus are advised to avoid being engaged in work involving direct contact with food until a stool test has found the person is no longer a norovirus carrier.
- vii) Personnel engaged in food preparation must wear clean, dedicated head covering and outer garments that are changed every day.
- viii) When moving from the preliminary processing area to the kitchen, change outer garments and footwear. (If changing footwear is difficult, make sure to disinfect footwear.)
- ix) Do not go to the toilet with your outer garments, head covering, and/or footwear for food preparation on.
- x) If a person not engaged in food preparation or inspection unavoidably enters the food preparation facility, make sure that the person wears clean, dedicated head covering, outer garments, and footwear, and wash and disinfect their hands.
- xi) To ensure the implementation of an investigation into the cause of food poisoning that occurs, as a rule, personnel engaged in food preparation must not consume foods prepared at the facility. This rule, however, does not apply if measures have been taken to ensure the implementation of such an investigation (e.g. specifying personnel who will sample food).

⁷ When conducting norovirus testing, it is recommended to use a test method that can detect norovirus, regardless of genotype, in a concentration in the order of 10⁵ copies per gram of stool sample. Even when the test result is negative, hygiene management must take into account the possibility of someone carrying norovirus that cannot be detected due to the test accuracy.

⁸ Stool testing for norovirus should be conducted when each food handler judges it necessary based on the situation, for example, when stool testing is conducted as a supplementary method to check the fitness of personnel engaged in food preparation, when a family member of personnel engaged in food preparation develops symptoms of infectious gastroenteritis, or when the Infectious Agents Surveillance Report indicates an increase in detection of norovirus.

(5) Other requirements

- i) Uncooked foods to be used as toppings for cooked foods must be subjected to the same level of hygiene control as for foods intended for raw consumption used as main ingredients. Such foods should be used as toppings as immediately as possible before they are served.
- ii) Waste (waste generated on the premises of the food preparation facility and food remnants returned to the food preparation facility) management must be performed as follows.
 - a. Waste containers must be managed in a way that prevents foul smells and waste liquids from leaking. After food preparation process etc. has finished, promptly remove waste from waste containers and clean the containers in order to prevent hygiene problems from occurring.
 - b. Do not bring food remnants returned to the facility into contamination-restricted working areas.
 - c. Transfer waste to a designated waste collection site at an appropriate frequency and do not leave waste in working areas.
 - d. Waste collection sites must be cleaned after removal of waste and maintained so as not to affect the surrounding environment.

III Hygiene Management System

1. Establishment of hygiene management system

- (1) The person responsible for running and managing the facility (hereinafter 'the facility manager'), such as the operator of the food preparation facility or the principal of a school, must appoint a person who is responsible for hygiene control in the facility (hereinafter 'the hygiene supervisor').

Note that a hygiene supervisor must be appointed also at facilities serving foods that have been received from central food preparation facilities or the like.

- (2) The facility manager should always collect information about food material suppliers to purchase food materials from suppliers that exercise reliable quality control. If food materials are purchased on a continuous basis, instruct the suppliers to strictly manage holding temperatures during transportation and to submit results of microbiological tests they conduct on a regular basis.
- (3) The facility manager must have the hygiene supervisor conduct inspections using checklists provided in the attached sheets and report the inspection results each time they are conducted in order for the facility manager to confirm that inspections have been conducted properly. Keep the inspection results for a period of 1 year.
- (4) If the facility manager receives a report from the hygiene supervisor that inspections have found an anomaly unable to be corrected, the facility manager must take necessary measures such as rejecting food materials, removing some items from the menu, or recalling ready-to-eat food products.

- (5) If inspections have revealed a situation that requires time for correction, the facility manager must take emergency measures and make corrections systematically.
- (6) The facility manager must make sure that the hygiene supervisor and personnel engaged in food preparation obtain necessary knowledge and skills regarding hygiene control and preventing food poisoning by providing them with relevant training programmes and/or other means.
- (7) The facility manager must maintain the good health of and check the state of health of all staff including personnel engaged in food preparation in an organized and systematic way so as to prevent them from being infected and from contaminating the facility.
- (8) The facility manager must make sure that the hygiene supervisor checks the state of health of each of the personnel engaged in food preparation before starting work every day and keeps a record of the results thereof.
- (9) The facility manager must make sure that personnel engaged in food preparation have a medical check-up on a regular basis and a stool test at least once per month. The items to be analysed in the stool test must include the presence of enterohemorrhagic *E. coli*. From October to March, stool testing for norovirus should be performed at least once per month or as necessary.
- (10) If a person engaged in food preparation has been found to be an asymptomatic norovirus carrier, the facility manager should take appropriate measures such as keeping the person away from being engaged in work involving direct contact with food until a stool test has found the person is no longer a norovirus carrier.
- (11) The facility manager must make sure that personnel engaged in food preparation with diarrhoea, vomiting, fever, or infected wounds on hands do not work with food.
- (12) The facility manager must make sure that personnel engaged in food preparation with certain symptoms such as diarrhoea or vomiting promptly undergo a medical examination to find whether they have contracted an infectious disease. Personnel engaged in food preparation who have been diagnosed with an infectious disease caused by norovirus are advised to avoid being engaged in work involving direct contact with food until a stool test has found the person is no longer a norovirus carrier.
- (13) If a person engaged in food preparation may have had a chance to be infected with norovirus illness, such as eating a meal with another person engaged in food preparation who shows symptoms of norovirus illness, and the meal is considered the cause of the illness, the facility manager should make sure that the person concerned promptly has a stool test for norovirus and take appropriate measures such as keeping the person away from being engaged in work involving direct contact with food until a stool test has found the person is not a norovirus carrier.
- (14) Plan menus of which preparation is well within the capabilities (e.g. human resources) of the facility.
- (15) When drawing a process flow diagram for each menu, pay attention to the following:

- a. Prevent the movement of personnel engaged in food preparation from potentially contaminated areas to contamination-restricted areas as much as possible.
- b. It is recommended that tasks of personnel engaged in food preparation be separated and each be handled by specified member of the personnel.
- c. Consideration should be given so that foods are prepared immediately before they are consumed.

The hygiene supervisor must discuss in advance the detailed arrangements for the task division and other matters based on the process flow diagram with the personnel engaged in food preparation.

- (16) It is recommended to receive guidance and advice regularly from a person with specialized expertise about all aspects regarding hygiene management for facilities. With regard to provision of health care for staff, receive guidance and advice regularly from an industrial physician etc. in accordance with the Industrial Safety and Health Act of Japan and other relevant laws and regulations.
- (17) At facilities used by elderly people, young children and/or infants, it is recommended to keep a crisis management system, for which the facility director is responsible, in place in normal situations, document how to systematically act to prevent the spread of diseases, and implement practical training in preventive action. It is also desirable to constantly investigate and monitor the number of people exhibiting symptoms in order to quickly grasp the occurrence of symptoms such as diarrhoea and vomiting employees or facility users have.

(Annex 1) Storage Temperatures for Raw Materials and Products

Food	Storage temp.				
Processed cereals (wheat flour, starch) Sugar	Room temp. Room temp.				
Meat, whale meat Thinly sliced meat, packed frozen whale meat Meat products Whale meat products Frozen meat products Frozen whale meat products	10°C or below -15°C or below 10°C or below 10°C or below -15°C or below -15°C or below				
Boiled octopus Frozen boiled octopus Oysters for raw consumption Frozen oysters for raw consumption Frozen food	10°C or below -15°C or below 10°C or below -15°C or below -15°C or below				
Fish meat sausage, fish meat ham, and specially packaged fish paste Frozen fish-paste products	10°C or below -15°C or below				
Liquid fat and oil Solid fat and oil (Lard, margarine, shortening, cacao butter)	Room temp. 10°C or below				
Shell eggs Egg liquid Frozen eggs Dried eggs	10°C or below 8°C or below -18°C or below Room temp.				
Nuts Chocolate	15°C or below 15°C or below				
Fresh fruits and vegetables Fresh fish and shellfish (including those for raw consumption)	Around 10°C 5°C or below				
Milk, concentrated milk Skimmed milk Cream Butter Cheese Condensed milk	<table style="border: none;"> <tr> <td style="border: none;">}</td> <td style="border: none;">10°C or below</td> </tr> <tr> <td style="border: none;">}</td> <td style="border: none;">15°C or below</td> </tr> </table>	}	10°C or below	}	15°C or below
}	10°C or below				
}	15°C or below				
Carbonated drinks (Those provided for in the food- and additive-related standards and criteria established pursuant to the Food Sanitation Act must conform to such standards etc.)	Room temp				

(Annex 2) Standard Operating Procedures

(Hand washing)

1. Wet your hands with water and apply soap.
2. Wash your fingers and arms. Wash thoroughly between fingers and fingertips. (approx. 30 sec.)
3. Rinse all the soap off. (approx. 20 sec.)
4. Dry your hands and arms with disposable paper towels etc. (Do not share towels.)
5. Apply alcohol-based hand sanitiser and rub into palms and fingers well.

(In the cases specified in II-3-(1) of this manual, repeat steps 1 through 3 one more time.)

(Cleaning and disinfecting equipment)

1. Kitchen machinery

- i) Disassemble the equipment into the main and sub-components. Do not place the disassembled components directly on the floor.
- ii) Wash the components with water (preferably tepid, at around 40°C) of a quality suitable for processing food 3 times.
- iii) Apply neutral detergent or weak alkaline detergent to a scrubbing sponge and wash the components thoroughly with it.
- iv) Rinse off the detergent completely with water (preferably tepid, at around 40°C) of a quality suitable for processing food.
- v) Disinfect the components by heating at 80°C for at least 5 minutes or by an alternative method having the equivalent effect.*¹
- vi) Allow the components to dry completely.
- vii) Reassemble the main and sub-components.
- viii) Before using the equipment, disinfect it by spraying alcohol (70%) on it, or by an alternative method having the equivalent effect.

2. Worktops

- i) Clear the worktop and the surrounding space.

¹ Some chlorine disinfectants (sodium hypochlorite, chlorous acid water, hypochlorous acid water, etc.) and ethanol disinfectants are expected to inactivate norovirus. When using any of these, be sure to follow the product instructions regarding concentrations and methods. Disinfection by immersion is recommended. If it is difficult to do so, impregnate a nonwoven fabric cloth or the like with the disinfectant and wipe clean with it.

(Reference) FY 2015 Study Report on Inactivation of Norovirus
(<http://www.mhlw.go.jp/file/06-Seisakujouhou-11130500-Shokuhinanzenu/0000125854.pdf>)

- ii) Wash the worktop with water (preferably tepid, at around 40°C) of a quality suitable for processing food 3 times.
- iii) Apply neutral detergent or weak alkaline detergent to a scrubbing sponge and wash the worktop thoroughly with it.
- iv) Rinse off the detergent completely with water (preferably tepid, at around 40°C) of a quality suitable for processing food.
- v) Allow the worktop to dry completely.
- vi) Disinfect the worktop by spraying alcohol (70%) on it, or by an alternative method having the equivalent effect.^{*1}
- vii) Before using the worktop, disinfect it in the same way as (vi) above.

3. Cutting boards, knives, spatulas, etc.

- i) Wash the equipment with water (preferably tepid, at around 40°C) of a quality suitable for processing food 3 times.
- ii) Apply neutral detergent or weak alkaline detergent to a scrubbing sponge and wash the equipment thoroughly with it.
- iii) Rinse off the detergent completely with water (preferably tepid, at around 40°C) of a quality suitable for processing food.
- iv) Disinfect the equipment by heating at 80°C for at least 5 minutes or by an alternative method having the equivalent effect.^{*2}
- v) Allow the equipment to dry completely.
- vi) Store the equipment in clean cabinets.

4. Reusable cloths, towels, etc.

- i) Wash the cloths etc. with water (preferably tepid, at around 40°C) of a quality suitable for processing food 3 times.
- ii) Apply neutral detergent or weak alkaline detergent to the cloths etc. and wash them thoroughly.
- iii) Rinse off the detergent completely with water (preferably tepid, at around 40°C) of a quality suitable for processing food.
- iv) Disinfect the cloths etc. by boiling at 100°C for at least 5 minutes.
- v) Allow the cloths etc. to dry in a clean place and store them in a clean place.

(Storage and management of raw materials etc.)

² Equipment that is difficult to wash thoroughly, such as large cutting boards and large colanders, must be disinfected by immersion in chlorine disinfectants such as chlorous acid water and sodium hypochlorite.

1. Vegetables and fruits³

- i) Inspect the item for contamination by any sanitary pests or foreign bodies, and for a putrid or foul smell. Defective items must be returned or must not be used.
- ii) For food inspection, place and seal up about 50 g each of ingredients in separate clean containers (plastic bags etc.) and preserve them at a temperature of -20°C or less for more than 2 weeks.
- iii) Place the item in another clean, dedicated container and store it at around 10°C . (Store frozen vegetables at -15°C or below.)
- iv) Wash the item under running water at least 3 times.
- v) Wash the item with a neutral detergent.
- vi) Rinse the item thoroughly under running water.
- vii) Where necessary, disinfect⁴ the item with sodium hypochlorite,⁵ and then rinse thoroughly under running water.
- viii) Drain the item.
- ix) Cut the item using a dedicated cutting board and dedicated knife.
- x) Place the item in a clean container.
- xi) Cover the container with a clean sheet (if it is lidless), and if it is to be left for 30 minutes or longer until preparation process, store it at 10°C or below.

2. Seafood and meat

- i) Inspect the item for contamination by any sanitary pests or foreign bodies, and for a putrid or foul smell. Defective items must be returned or must not be used.
- ii) For food inspection, place and seal up about 50 g each of ingredients in separate clean containers (plastic bags etc.) and preserve them at a temperature of -20°C or less for more than 2 weeks.
- iii) Place the item in another clean, dedicated container and store it at 10°C or below for meat or at 5°C or below for seafood. (Store frozen items at -15°C or below.)
- iv) Where necessary, disinfect the item with sodium hypochlorite,⁶ and then rinse

³ For fresh fruits, such as mandarin oranges, that are cleaned to remove surface dirt and served without being cut into segments or small pieces, steps 3 through 8 may be omitted.

⁴ Vegetables and fruits must be disinfected when the facility intended to provide meals to infants, young children, elderly people and those who with lowered immune systems serves foods intended for raw consumption (excluding, however, cases where skins of such foods are removed before serving).

⁵ Sodium hypochlorite solutions (200 mg/L for 5 min. or 100 mg/L for 10 min.) or chlorous acid water that is as effective as the former (not for use on mushrooms), sodium chlorite solutions (for use on vegetables for raw consumption only), peracetic acid formulations, hypochlorous acid water, and organic acid solutions that can be used as food additives. When using any of these, be sure to comply with the 'Standards and criteria for food and food additives' stipulated in the Food Sanitation Act.

⁶ Sodium hypochlorite solutions (200 mg/L for 5 min. or 100 mg/L for 10 min.) or chlorous acid water that is as effective as the former, sodium chlorite solutions (not for use on seafood), peracetic acid formulations

thoroughly under running water.

- v) Cut the item using a dedicated cutting board and dedicated knife.
- vi) Immediately pass the item on to the cooking/preparation process.

(Recording core temperatures and heating times for foods to be heat-treated)

1. Deep-fried food

- i) Check that the oil has reached a pre-set temperature.
- ii) Record the cooking start time.
- iii) At appropriate times during cooking, measure the core temperature of the food item at at least 3 locations using a calibrated probe thermometer. When all the temperatures are 75°C or above, record all the values and continue heating the item for another 1 minute or longer (or at 85 to 90°C for at least 90 seconds when cooking foods such as bivalves that pose a possible risk of being contaminated by norovirus).
- iv) Record the total heating time.
- v) When successively repeating the same heating process, check and record each time that the oil has reached a pre-set temperature, and cook the food item under conditions specified in steps (i) to (iv) above. If the oil has not yet reached the pre-set temperature, take necessary measures to raise the oil temperature.

2. Grilled food and steamed food

- i) Record the cooking start time.
- ii) At appropriate times during cooking, measure the core temperature of the food item at at least 3 locations using a calibrated probe thermometer. When all the temperatures are 75°C or above, record all the values and continue heating the item for another 1 minute or longer (or at 85 to 90°C for at least 90 seconds when cooking foods such as bivalves that pose a possible risk of being contaminated by norovirus).
- iii) Record the total heating time.
- iv) When successively repeating the same heating process, cook the food item under conditions specified in steps (i) to (iii) above. In this case, the core temperature may be measured at only 1 location that is considered to take the longest time to be cooked through.

3. Simmered food and stir-fried food

(not for use on seafood), hypochlorous acid water, hypobromous acid water (not for use on seafood), and organic acid solutions that can be used as food additives. When using any of these, be sure to comply with the 'Standards and criteria for food and food additives' stipulated in the Food Sanitation Act.

Cook meat first. When using frozen meat, seafood, and/or vegetables, thaw them completely before cooking.

- i) At appropriate times during cooking, measure the core temperature of the food item that is considered to take the longest time to be cooked through at at least 3 locations (or at least 1 location for a steamed dish) using a calibrated probe thermometer. When all the temperatures are 75°C or above, record all the values and continue heating the item for another 1 minute or longer (or at 85 to 90°C for at least 90 seconds when cooking foods such as bivalves that pose a possible risk of being contaminated by norovirus).

If the dish does not contain any ingredients that allow the measurement of core temperatures, measure temperatures at at least 3 points (or at least 1 point for a steamed dish) at around the centre in the cooking pot.

- ii) When successively repeating the same heating process, check and record temperatures as described above.

How to Keep Records for Controlling Temperatures of Prepared Foods

(In cases where the food item is served 30 minutes or more after preparation)

