

**PUBLIC HEALTH ACT**  
R-032-2023  
Registered with the Chief Legislative Counsel  
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**FOOD SAFETY REGULATIONS**

The Commissioner in Executive Council, on the recommendation of the Minister, under section 85 of the *Public Health Act* and every enabling power, makes the attached *Food Safety Regulations*.

Interpretation

Definitions

1. (1) In these regulations,

"Code" means the Nunavut Food Retail and Food Service Code in the Schedule to these regulations; (Code)

"contamination" means exposure of food to conditions that permit or may permit the introduction or the occurrence of any of the following:

- (a) foreign matter, including filth or a pest,
- (b) poisonous substances, disease-causing organisms or parasites, or toxins,
- (c) any substance that may be reasonably expected to compromise food safety or render the food unfit or unsafe for human consumption; (*contamination*)

"country food" means, subject to subsection (2), all terrestrial, aquatic, avian, amphibian flora and fauna *ferae naturae*, and all parts and products thereof intended for human consumption that have been lawfully harvested within Nunavut by Nunavut Inuit or persons who have been assigned harvesting rights under Section 5.7.34 of the Nunavut Agreement; (*aliments traditionnels*)

"employee" includes any person working in a food premises, whether or not there is a formal employment relationship; (*employé*)

"equipment" means any appliance, apparatus, or device that is or may be used in the operation or maintenance of a food premises, but does not include utensils; (*équipement*)

"food bank" means a non-profit organization that:

- a) operates with the exclusive intent of providing food to those in need, and
- b) receives, holds, packages, repackages, or distributes food to be consumed off the premises, and may or may not process food; (*banque alimentaire*)

"food premises" means any following places whether they operate on a temporary or permanent basis:

- (a) restaurants including those offering delivery or take-out service only,
- (b) institutions and camps which handle food,
- (c) soup kitchens or similar premises,
- (d) caterers, including the vehicles used to transport food,
- (e) retail grocery and food outlets,
- (f) fish and meat processing facilities, including their front shops,
- (g) mobile food trucks,
- (h) tourist accommodations as defined in the *Tourism Act*,
- (i) any other place where high-risk food or medium-risk food as described in Appendix A of the Code is handled; (*local pour services alimentaires*)

"food handling area" means the area in a food premises where food is handled and includes all equipment and utensils in the area; (*aire de manipulation des aliments*)

"fresh fruits and vegetables" means any fresh plant or any fresh edible fungus, or any part of such a plant or fungus, that is a food; (*fruits et légumes frais*)

"handle" means, in relation to food,

- (a) the manufacture, importation, processing, preparation, packaging, storage, display, movement, transport, distribution or sale of any food that is intended to be distributed, served or sold to the public or in an institution or camp, and
- (b) the distribution, service or sale of food to the public or in an institution or camp; (*manipuler*)

"operator" means the person who has the legal obligation for food safety in the food premises, such as the owner or the owner's agent, and who possesses a valid business permit or licence to operate the food premises if required by law. The operator can also be a food handler; (*exploitant*)

"owner" means the business owner of a food premises and includes any person in the actual or apparent possession or control of a food premises; (*propriétaire*)

"permit" means a permit issued under section 10; (*permis*)

"pest" means

- (a) a rodent, cockroach, fly, another insect or other vermin, or
- (b) any other animal that is potentially destructive to the sanitary conditions, operation or maintenance of a food premises; (*ravageur*)

"sanitary" means conditions that are designed to prevent health hazards in food; (*salubre ou hygiénique*)

"sanitize" means reduce the level of microorganisms to a level that will not compromise the safety of a food product; (*assainir ou désinfecter*)

"temporary food premises" means a food premises that is operated for less than 14 days per year; (*local pour services alimentaires temporaire*)

"uninspected country food" means animal-derived country food that is not obtained from a source that is subject to inspection by

- (a) the Government of Canada,
  - (b) the Government of Nunavut under another enactment, or
  - (c) an official or agency of any of those governments under whose authority food safety standards are established and enforced;
- (*aliments traditionnels non inspectés*)

"utensils" means kitchenware, tableware, glassware, cutlery, and other similar items used in the handling or consuming of food; (*ustensiles*)

"vehicle" includes any vehicle designed to travel on land that is drawn, propelled or driven by any kind of power, including muscular power, but does not include a device that is designed to run on rails; (*véhicule*)

#### Country food with other food

(2) Food that includes both country food and other food is not country food for the purposes of these regulations, except country food with added

- (a) salt;
- (b) dry seasoning;
- (c) vinegar that does not have other additives; or
- (d) water.

#### Dried, smoked and fermented country food

(3) For greater certainty, country food that is dried, smoked or fermented is country food for the purposes of these regulations.

#### Compliance with Code – exemptions

**2.** A reference in these regulations to a food premises's compliance with the Code does not include compliance with a requirement of the Code for which the food premises has been granted an exemption under section 6 or 9.

### Application

#### Exemptions

**3.** (1) The following places are exempt from the application of these regulations:

- (a) a dwelling in which only the following foods are handled:

- (i) low-risk foods as described in Appendix A of the Code,
- (ii) subject to subsection (5), food that will be donated,
- (iii) subject to subsection (2) and section 4, country food;
- (b) unless other food is also handled there, a place where the following foods are handled:
  - (i) low-risk foods as described in Appendix A of the Code,
  - (ii) subject to subsection (2) and section 3, country food,
  - (iii) fresh fruits and vegetables,
  - (iv) subject to subsection (3), food in original manufacturer-sealed containers;
  - (v) subject to subsection (4), liquor under the authority of the *Liquor Act*,
  - (vi) cannabis under the authority of the *Cannabis Act*, unless it is included in high-risk food or medium-risk food as described in Appendix A of the Code;
- (c) a food bank;
- (d) a premises that is registered with and subject to inspection by the Canadian Food Inspection Agency;
- (e) a premises, vehicle or boat that operated under a licence issued under the *Fisheries Act (Canada)*;
- (f) a part of a fish or fish products processing facility that is registered, licenced and operated under applicable territorial or federal food safety legislation;
- (g) a food vending machine that dispenses only bottled beverages, candies, nuts or similar low-risk foods as described in Appendix A of the Code;
- (h) camps designed to house fewer than 50 occupants;
- (i) outpost camps and tent camps as defined in the *Tourist Establishment Regulations* made under the *Tourism Act*;
- (j) subject to section 5,
  - (i) home stays and bed and breakfasts as defined in the *Tourist Establishment Regulations* made under the *Tourism Act*, and
  - (ii) family home day cares as defined in the *Child Day Care Standards Regulations* made under the *Child Day Care Act*;

Country food – commercial premises

(2) Despite subsection (1), these regulations apply to

- (a) places used for the commercial processing of country food; and
- (b) places for which a licence is required under section 108 of the *Wildlife Act*.

Manufacturer – sealed containers

(3) Section 3.5 of the Code applies to a place where food in original manufacturer-sealed containers is handled.

#### Manufacture of liquor

(4) Despite subsection (1), these regulations apply to places used for the commercial manufacture of liquor.

#### High-risk or medium-risk food from dwelling

(5) A person who publicly donates high-risk food or medium-risk food, as described in Appendix A of the Code, produced in a dwelling must conspicuously indicate, in writing or as part of a broadcast offer, that the food has been produced in a dwelling without a permit.

### Country food without permit

#### Application

4. (1) This section does not apply to country food handled in a food premises operated under a permit.

#### Country food advertising

(2) A person who sells uninspected country food must conspicuously indicate, in any written, published or broadcast advertisement or offer for sale

- (a) that the country food has not been inspected; and
- (b) in the case of walrus or bear, whether it has been tested for trichinellosis and, if so, whether it tested negative or positive.

#### Zoonotic diseases

(3) If a person sells or otherwise provides country food that has tested positive for a zoonotic disease listed in Schedule 6 to the *Reporting and Disease Control Regulations*, or the seller or provider suspects that the country food is infected with such a zoonotic disease, the person must notify every person purchasing or receiving the country food.

### Food premises in dwellings

#### Application

5. (1) This section applies to
- (a) home stays and bed and breakfasts as defined in the *Tourist Establishment Regulations* made under the *Tourism Act*;
  - (b) family home day cares as defined in the *Child Day Care Standards Regulations* made under the *Child Day Care Act*.

#### Requirements

(2) In addition to the requirements of section 23 of the Act, the operator of a home stay, bed and breakfast or family home day care must

- (a) ensure that food preparation areas, food storage areas, equipment and utensils are operated and maintained in a clean and sanitary manner;
- (b) ensure that persons who handle food or come into contact with food to be served to clients

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- (i) is clean and sanitary,
- (ii) washes their hands as often as is necessary to prevent contamination of food, and
- (iii) do not do anything that risks contaminating the food;
- (c) ensure that all food served or to be served to clients is handled in a sanitary manner;
- (d) store all perishable food at temperatures required under section 3.2 of the Code; and
- (e) only use water
  - (i) that is potable, or
  - (ii) in accordance with any drinking water advisory that has been issued for the water supply system.

### Food supplied from home

(3) The operator of a family home day care must ensure that any food supplied from a client's home are stored and served under sanitary conditions.

### Approval of plans and specifications for food premises

#### Approval required

**6.** (1) A person must not construct, renovate, make alterations to, or open a food premises without first obtaining an approval from the Chief Public Health Officer.

#### Application for approval

(2) An application for the approval of a planned construction, renovation, alteration or opening of a food premises must include

- (a) the names of the owner and the operator;
- (b) the addresses of the owner and the operator;
- (c) if the food premises is a building or location, the address;
- (d) if the food premises is a vehicle, or uses a vehicle in its operations, the licence plate number and registration number of the vehicle or if it does not have a licence number or registration number, a description of the vehicle that is sufficient to identify it;
- (e) information respecting the types of food that will be handled at the food premises;
- (f) plans and specifications for the food premises; and
- (g) if applicable, details on the requirements of the Code that the food premises will not comply with and for which the applicant is requesting an exemption.

#### Additional criteria

(3) If, in the opinion of the Chief Public Health Officer, it is necessary for the clean and sanitary operation of the food premises and the safety of the food at the food premises, the Chief Public Health Officer may, by notice in writing, require an applicant to add any other criteria that the Chief Public Health Officer considers necessary to meet

the requirements of the Act, the Code and these regulations to the proposed construction, alteration, renovation or opening of the food premises.

#### Approval

(4) The Chief Public Health Officer must approve an application under this section if

- (a) subject to any exemptions granted under subsection (5), the proposed construction, alteration, renovation or opening of the food premises complies with the Act, the Code and these regulations;
- (b) all the criteria specified by the Chief Public Health Officer under subsection (3) have been included in or added to the proposed construction, renovation, alteration or opening and are, in the opinion of the Chief Public Health Officer, adequate for the needs of the food premises.

#### Exemptions

(5) The Chief Public Health Officer may exempt a proposed construction, renovation, alteration or opening from a requirement of the Code if, in the opinion of the Chief Public Health Officer, the safety of the food at the food premises can be adequately maintained without the requirement.

#### Content of approval

- (6) An approval under this section must show
- (a) the names of the owner and the operator;
  - (b) the location of the food premises;
  - (c) if the food premises is a vehicle, or uses a vehicle in its operations, the licence and registration number of the vehicle or if it does not have a licence number or registration number, a description of the vehicle that is sufficient to identify it;
  - (d) the date of approval;
  - (e) information respecting the types of food that may be handled at the food premises; and
  - (f) details of exemptions granted under subsection (5).

#### Cancellation of approval

(7) An environmental health officer may cancel an approval if the food premises is not constructed or altered in compliance with the Code, these regulations or any additional criteria required by the Chief Public Health Officer under subsection (3).

#### Reinstating approval

(8) An environmental health officer may reinstate an approval cancelled under subsection (7), if they are satisfied that the applicant will meet the requirements established by these regulations and any additional criteria required by the Chief Public Health Officer under subsection (3).

## Permits

### Permit required

- 7.** (1) A person must not operate a food premises
- (a) without a permit;
  - (b) whose permit is subject to a full suspension under section 15;
  - (c) in a manner that fails to comply with a partial suspension under section 15; or
  - (d) in contravention of its permit, including any conditions of the permit.

### No food premises in dwellings

- (2) For greater certainty,
- (a) a person cannot obtain a permit for producing food for public consumption in a dwelling; and
  - (b) a person must not produce food for public consumption in a dwelling unless they are exempt from the application of these regulations under section 3.

### Displaying permit

- 8.** The operator of a food premises must ensure that the permit of the food premises is displayed in a prominent location that is visible to clients of the food premises.

### Application for permit

- 9.** (1) An owner may submit an application for a permit to an environmental health officer which must include
- (a) the names of the owner and the operator;
  - (b) the addresses of the owner and the operator;
  - (c) if the food premises is a building or location, the address;
  - (d) if the food premises is a vehicle, or uses a vehicle in its operations, the licence plate number and registration number of the vehicle or if it does not have a licence number or registration number, a description of the vehicle that is sufficient to identify it;
  - (e) the details of the approval and exemptions, if any, granted under section 6;
  - (f) information respecting the types of food that will be handled at the food premises and the manner in which it will be handled at the food premises;
  - (g) if applicable, provide details on the requirements of the Code that the food premises will not comply with and for which the applicant is requesting an exemption; and
  - (h) plans and specifications for the food premises.



#### Review of application

(2) An environmental health officer must review the application to ensure compliance with the Act, the Code and these regulations as they relate to the food premises.

#### Additional information or documents

(3) The environmental health officer may request an applicant to provide additional information or documents that the environmental health officer considers necessary to ensure compliance with the Act, the Code and these regulations, and any such additional information or documents must be provided in order for the application to be considered for approval by the environmental health officer.

#### Forwarding application to Chief Public Health Officer

(4) The environmental health officer must forward the application to the Chief Public Health Officer if

- (a) in the opinion of the environmental health officer, it is necessary to set conditions on the permit, including any restrictions respecting the matters submitted under paragraph (1)(f); or
- (b) the applicant has requested an exemption from a requirement of the Code that the environmental health officer is not authorized to grant under subsection (6).

#### Notification of conditions

(5) Following the review of an application forwarded under subsection (4), the Chief Public Health Officer must notify the environmental health officer of

- (a) any conditions or exemptions to be included on the permit; and
- (b) of any requested exemptions that are not granted.

#### Exemptions for classes of food premises

(6) The Chief Public Health Officer may authorize environmental health officers to grant exemptions from a requirement of the Code to food premises that fit criteria specified by the Chief Public Health Officer, if, in the opinion of the Chief Public Health Officer, the safety of the food at the food premises can be adequately maintained without the requirement.

#### Contents of permit

**10.** (1) If the application is approved by an environmental health officer, they must issue a permit to the owner of the food premises which clearly shows

- (a) the names of the owner and the operator;
- (b) the location of the food premises;
- (c) if the food premises is a vehicle, or uses a vehicle in its operations, the licence and registration number of the vehicle or if it does not have a licence number or registration number, a description of the vehicle that is sufficient to identify it;
- (d) the time period the permit is valid for;

- (e) subject to any conditions listed under paragraph (g), information from the application respecting the types of food that will be handled at the food premises and the manner in which it will be handled at the food premises;
- (f) the signature of the environmental health officer;
- (g) if applicable, any conditions set by the Chief Public Health Officer relating to
  - (i) the types of food that may be handled at the food premises,
  - (ii) the manner in which food may be handled at the food premises, or
  - (iii) any other matter that, in the opinion of the Chief Public Health Officer, ensures the food that is handled at the food premises is fit and safe for human consumption;
- (h) if applicable, any exemptions from the requirements of the Code granted under section 9;
- (i) in the case of a caterer, a condition that all food preparation and handling apart from the serving of the food must take place in a food premises that has been approved under section 6 and been issued a permit; and
- (j) that it is subject to any order issued under the Act.

Validity of permit

- (2) A permit may not be valid for more than one year.

Permit only applies to single food premises

- 11.** A permit only applies to
- (a) a single location and any vehicles used by the operator of the location to deliver food to or from the location; or
  - (b) a single vehicle.

Ownership of permit

- 12.** A permit is the property of the Government of Nunavut.

Notification of new operator

- 13.** (1) The owner of a food premises must notify an environmental health officer as soon as their food premises has a new operator and the notification must include a copy of the new operator's certification under section 42.

Changing details of permit

- (2) The owner of a food premises may apply to an environmental health officer to
  - (a) change any of the details included on the permit of the food premises under subsection 10(1), other than the name of the operator; or
  - (b) transfer the permit of the food premises to a new owner.

Forwarding application to Chief Public Health Officer

(3) The environmental health officer must forward the application to the Chief Public Health Officer if

- (a) the application relates to conditions on the permit that were set by the Chief Public Health Officer; or
- (b) in the opinion of the environmental health officer, it is necessary to modify or set additional conditions on the permit.

Notification of conditions

(4) Following the review of an application forwarded under subsection (3), the Chief Public Health Officer must

- (a) determine whether to
  - (i) approve requested modifications to conditions on the permit, and
  - (ii) modify or set additional conditions on the permit; and
- (b) notify the environmental health officer of the determination.

Notification of approval or rejection

(5) The environmental health officer must notify the applicant and, if applicable, the new owner of the approval or rejection of the application in writing, along with any determination of the Chief Public Health Officer under subsection (4).

Reissuing permit

(6) Following a change to the details of a permit under this section, an environmental health officer must reissue the permit with the new details.

Renewal application

**14.** (1) The owner of a food premises may submit an application for renewal of an existing permit to an environmental health officer, who must review the application and issue a new permit if the food premises continues to meet all of the conditions of its permit and is in compliance with the Act, the Code and these regulations.

Exception – plans and specifications

(2) An application for renewal of an existing permit need not include plans and specifications for the food premises unless they have changed since the previous application.

Validity of permit pending renewal

(3) When the owner of a food premises applies for renewal of an existing permit before its expiry date, the existing permit continues to be valid until an environmental health officer

- (a) issues a new permit; or
- (b) notifies the owner, in accordance with section 2 of the *Public Health Administrative Regulations*, that the renewal application is not approved.

## Cancellation and suspension

### Suspension of permits

**15.** (1) An environmental health officer may fully or partially suspend the permit of a food premises if

- (a) following an order under section 62 of the Act, the operator or owner of the food premises fails to comply with the order; or
- (b) in the opinion of the environmental health officer, the food premises is not in compliance with the Act, the Code, these regulations or an order made under the Act, and the non-compliance is sufficiently serious to justify an immediate suspension of the permit.

### Notice of suspension

(2) Upon suspension, the environmental health officer must notify the operator and owner of the food premises of the suspension, in writing, along with

- (a) the reasons for the suspension;
- (b) whether the suspension is full or partial, and, if it is partial, the activities that are not authorized during the suspension;
- (c) the issues required to be corrected before the suspension may be lifted; and
- (d) the time frame in which the corrections must be performed, which must be reasonable in the circumstances.

### Service of notice of suspension

(3) A notice under subsection (2) must be served

- (a) in the manner provided for under section 2 of the *Public Health Administrative Regulations*; or
- (b) in the case of a suspension under paragraph (1)(b), personally to an employee at the food premises, if the operator is not present at the food premises at the time of service.

### When suspension is effective

(4) In the case of service under paragraph (3)(a), the suspension is effective as soon as either the operator or the owner has been served.

### Cancellation of permit

**16.** (1) A permit may be cancelled by the environmental health officer if

- (a) the permit has been suspended and the issues identified in written notice of the suspension have not been corrected within the time frame provided under paragraph 15(2)(d);
- (b) the food premises for which the permit was issued has ceased to operate in that place or vehicle; or
- (c) in the opinion of the environmental health officer, the nature of the non-compliance is such that a suspension of the permit or issuing

an order under section 62 of the Act would not be appropriate or practicable in the circumstances.

#### Notice of cancellation

(2) Upon cancelling a permit, the environmental health officer must notify the operator and owner of the food premises of the cancellation, in writing, along with the reasons for the cancellation.

#### Service of notice of cancellation

(3) A notice under subsection (2) must be served in the manner provided for under section 2 of the *Public Health Administrative Regulations*, but the cancellation is effective as soon as either the operator or owner is so served.

#### Cancellation by owner

(4) The owner of the food premises may cancel the permit for the food premises at any time by notifying an environmental health officer in writing.

### Reviews

#### Request for review – approvals

**17.** (1) A person may, by notice in writing, request the Chief Public Health Officer to review a cancellation of an approval of a food premises granted to them under section 6.

#### Request for review – permits

(2) An owner may, by notice in writing, request the Chief Public Health Officer to review

- (a) a failure or refusal to issue a permit or to renew a permit; or
- (b) a suspension or cancellation of a permit.

#### Contents of request

(3) A request under subsection (1) or (2) must include

- (a) the reasons for the request;
- (b) any written evidence in support of the request; and
- (c) a description of steps taken to remedy the deficiencies, if any, indicated by the environmental health officer, or the reason why the deficiencies have not been remedied.

#### Review of Chief Public Health Officer's decision

(4) For greater certainty, the Chief Public Health Officer may review a decision or failure under this section even if the Chief Public Health Officer made or failed to make the decision.

#### Timing of request for review

(5) A request under subsection (1) or (2) must be made

- (a) in the case of a decision, no more than 30 days after the person is notified of the decision; or

- (b) in the case of a failure to make a decision, no less than 60 days and no more than 90 days after the application was made.

#### Manner of review

(6) The Chief Public Health Officer may determine the manner of conducting the review, in accordance with the requirements of natural justice.

#### Decision following review

(7) Following a review under this section, the Chief Public Health Officer may reverse or maintain the decision being reviewed, or make any decision that an environmental health officer was authorized to make.

### Operation of food premises

#### Code compliance

**18.** The operator must ensure that the food premises is operated in compliance with the Code.

#### No re-use of single-use utensils

**19.** An operator must ensure that single-use utensils are not reused.

#### Sanitary handling of food

**20.** (1) The operator must ensure that all food used or to be used in a food premises is handled in a sanitary manner.

#### Contaminated or otherwise unfit or unsafe food

(2) Unless otherwise provided in another enactment, the operator must ensure that all food that has been contaminated or is otherwise unfit or unsafe for human consumption is not handled at the food premises.

#### Exception

(3) Subsection (2) does not apply to food that is being stored pending disposal or destruction.

#### Operations and maintenance procedures

**21.** (1) The operator of a food premises must have written procedures to ensure its clean and sanitary operation and maintenance and the safety of the food at the food premises, which include the following:

- (a) a list of all cleaning and sanitizing agents used in the food premises, including their concentrations and uses;
- (b) maintenance requirements for the premises and equipment;
- (c) provisions for managing all garbage, refuse, waste and sewage, in and surrounding the food premises;
- (d) provisions for controlling pests;
- (e) provisions for monitoring the implementation of the procedures.

Employee policies and procedures

(2) The operator of a food premises must have written policies and procedures for employees that ensure employees who enter a food handling area or engage in an operation in a food premises who come into contact with food are

- (a) clean and sanitary;
- (b) wearing sanitary clothing and footwear;
- (c) taking adequate measures to prevent food from being contaminated by hair;
- (d) washing their hands as often as is necessary to prevent contamination of food;
- (e) removing any objects or substances from their body that might fall into or otherwise contaminate food; and
- (f) not engaging in any behavior or practice that risks contaminating food.

Additional instructions

(3) An environmental health officer may provide additional instructions that they consider appropriate in order to maintain clean and sanitary operation and maintenance of the food premises and the safety of the food at the food premises.

Inclusion of additional instructions

(4) The operator of a food premises must include any additional written instructions provided by the environmental health officer under subsection (3) with their written policies and procedures.

Exception – temporary food premises

(5) This section does not apply to temporary food premises.

Authorized food sources

**22.** (1) The operator of a food premises must ensure that all food in the food premises is

- (a) obtained from a food premises that has a permit;
- (b) obtained from a source that is subject to inspection by
  - (i) the Government of Canada,
  - (ii) the Government of Nunavut under another enactment,
  - (iii) the government of a province or another territory, or
  - (iv) a person or body authorized to inspect food under the laws of Canada, Nunavut, a province or another territory;
- (c) in the case of fresh fruits or vegetables, obtained in compliance with section 122 of the *Safe Food for Canadians Regulations* (Canada) made under the *Safe Food for Canadians Act* (Canada); or
- (d) subject to sections 23 and 25, country food.

Deemed Code compliance

(2) Food referred to in subsection (1) is deemed to be from an approved source for the purposes of the Code.

Handling of uninspected country food

**23.** An operator must not handle uninspected country food in a food premises unless the country food meets the following conditions:

- (a) the uninspected country food was
  - (i) legally harvested, and
  - (ii) legally obtained by the operator;
- (b) the uninspected country food is clean, fit and safe and will not contaminate other food, or the food handling area;
- (c) after the country food has been processed, the food handling area and equipment used in the processing is cleaned and sanitized prior to any further use;
- (d) a disclosure notice that products sold at the food premises may contain uninspected country food is published on the menu or prominently displayed in the food premises.

Handling of walrus and bear

**24.** The operator of a food premises may only handle food containing walrus or bear for which they have received a laboratory report from a laboratory recognized by the Chief Public Health Officer showing that the walrus or bear has tested negative for trichinellosis.

Written record of uninspected country food

**25.** (1) The operator of a food premises that handles uninspected country food must maintain a written record of all uninspected country foods received by the food premises.

Providing record on request

(2) Upon request, the operator must provide a copy of the records described in subsection (1) to an environmental health officer or a conservation officer appointed under the *Wildlife Act*.

Returned food

**26.** (1) Subject to subsection (2), an operator must ensure that food that is distributed, served or sold to a client and is unused or returned by the purchaser is not distributed or served again or resold.

Exceptions

- (2) Food may be served or resold if it meets all of the following conditions:
- (a) it is not a potentially hazardous food as defined in the Code;
  - (b) it is individually packaged;
  - (c) it is unopened and in its original container.



Live animals prohibited

- 27.** (1) An operator must not allow a live animal to enter a food premises unless it is
- (a) a fish, crustacean, shellfish that is in an aquarium and intended for human consumption; or
  - (b) live fish in an aquarium that are not intended for human consumption.

Exception – service animals

(2) Despite subsection (1), an operator must permit any service animal accompanying and providing assistance to a person with a physical or mental disability to enter into and remain in a food premises, unless the animal is otherwise excluded by law from the premises.

Definition of service animal

- (3) For the purposes of this section, an animal is a service animal for a person with a disability,
- (a) if it is readily apparent that the animal is used by the person for reasons relating to their disability; or
  - (b) if the person provides a letter from a medical practitioner or nurse confirming that the person requires the animal for reasons relating to a disability.

Labelling of food

- 28.** (1) An operator must ensure that a food premises is operated so that all food is
- (a) labelled to indicate its contents, composition, and repackaging date, if applicable;
  - (b) labelled in accordance with applicable federal legislation; and
  - (c) in the case of uninspected country food, labelled as being uninspected country food.

Exception

(2) Subsection (1) does not apply to food that has been ordered by and is being prepared for or served to a client.

List of ingredients

(3) If food is served without being labelled as to its contents and composition, an operator must ensure that a list of ingredients of the food is maintained at the food premises.

Definition of "ready-to-eat"

- 29.** (1) In this section, "ready-to-eat" means a food that is
- (a) normally consumed without washing, cooking or other preparation; and
  - (b) prepared into a form in which it is consumed without further processing.

#### Labelling of ready-to-eat food

(2) An operator must ensure that refrigerated and packaged ready-to-eat food that may be held for longer than 24 hours is clearly labelled with the date it was prepared and the date by which it should be consumed.

#### Safe handling of food

**30.** An operator must ensure that all containers, materials, and procedures used for food packaging and labelling

- (a) protect the food from contamination; and
- (b) protect the food from damage likely to make the food unfit or unsafe.

#### Emergency food storage

**31.** (1) Subject to any order issued under the Act, if an emergency situation threatens to spoil food at a food premises, the operator of the food premises may transport and store the food at another premises for the duration of the emergency situation, whether or not it is a food premises.

#### Food safety

(2) An operator must ensure the safety of food transported or stored in accordance with subsection (1).

#### Reverse osmosis units

**32.** (1) An operator who operates a reverse osmosis unit to treat water that is intended to be distributed, served or sold to the public or in an institution or camp must ensure that

- (a) the unit treats the water using both reverse osmosis and ultraviolet light;
- (b) the unit is maintained in accordance with the manufacturer's instructions;
- (c) bacteriological tests of the treated water are performed at least every three months;
- (d) water treated by the reverse osmosis unit is not distributed, served or sold to the public or in an institution or camp unless the bacteriological tests indicate that
  - (i) *Escherichia coli* is non-detectable per 100 millilitres of water, and
  - (ii) total coliforms are non-detectable per 100 millilitres of water;
- (e) maintenance records and results of bacteriological tests are maintained on the same premises as the unit and are available for inspection by environmental health officers; and
- (f) the manufacturer's instructions for the unit are maintained on the same premises as the unit and are available for inspection by environmental health officers.

### Complaints system

**33.** (1) The operator of a food premises must establish and maintain at the food premises a system for receiving and dealing with complaints that includes a written record.

### Reporting complaints of illness

(2) Within 24 hours after receiving a complaint relating to illness associated with consuming food from their food premises, an operator must report the complaint to an environmental health officer.

## Inspection reports

### Inspection reports are public

**34.** (1) The Chief Public Health Officer must make inspections reports of all inspections of food premises carried out under section 69 of the Act available in electronic form for public review.

### Internet publication of inspection reports

(2) The Chief Public Health Officer must publish all inspections reports referred to in subsection (1) on a website and must maintain the following on the website:

- (a) the most recent report for each food premises;
- (b) if applicable, any other reports that are less than one year old.

### Inspection report provided on request

(3) The Chief Public Health Officer must make all reports created under subsection (1) available in physical form and provide them upon request to any member of the public who requests the report in writing.

### Redactions

(4) The Chief Public Health Officer must redact the names of any individuals associated with the report in any reports disclosed under subsections (2) and (3) unless disclosure of those names is considered necessary by the Chief Public Health Officer under section 50 of the Act.

### *Archives Act and Access to Information and Protection of Privacy Act*

(5) For greater certainty, in case of an inconsistency between this section and a provision of the *Archives Act*, the *Access to Information and Protection of Privacy Act* or any other Act pertaining to the preservation, disclosure or use of any inspection report, those Acts prevail to the extent of the inconsistency.

### Notice respecting inspection reports

**35.** The operator of a food premises must conspicuously display information detailing

- (a) the address of the website where the Chief Public Health Officer publishes inspection reports; and
- (b) the process for requesting a physical copy.

Food premises employees

Reporting food-borne illnesses

**36.** (1) An employee of a food premises must report to the operator if they are diagnosed with, or reasonably suspect that they are infected with

- (a) Amoebiasis;
- (b) Campylobacteriosis;
- (c) Cholera;
- (d) Cryptosporidiosis;
- (e) Hepatitis A;
- (f) Norovirus;
- (g) Paratyphoid;
- (h) Salmonellosis;
- (i) Shigellosis;
- (j) Typhoid;
- (k) Verotoxigenic *Escherichia coli*; or
- (l) *Yersiniosis*.

Reporting symptoms

(2) An employee of a food premises must inform the operator if the employee has one or more symptoms associated with acute gastrointestinal illness including diarrhea, fever, vomiting, or jaundice.

Informing environmental health officer of food-borne illnesses and symptoms

**37.** The operator must notify an environmental health officer as soon as practicable of any employee who

- (a) is known or suspected of being infected with a communicable disease listed in subsection 36(1);
- (b) exhibits symptoms listed in subsection 36(2); or
- (c) has notified the operator under section 36.

Exclusion of employee

**38.** (1) The operator of a food premises must exclude an employee from performing any function in a food premises that involves contact with food, food contact surfaces, equipment, utensils, other food premises employees who perform such functions or clients if they

- (a) are known or suspected of being infected with a communicable disease listed in subsection 36(1);
- (b) exhibit symptoms listed in subsection 36(2); or
- (c) have notified the operator under section 36.

Return to work

(2) The operator of a food premises must not allow an employee excluded under subsection (1) to return to perform the functions referred to in that subsection until the employee provides

- (a) written confirmation from a medical practitioner or nurse that the employee is not infected with the disease and is not exhibiting symptoms of a food-borne illness; or
- (b) written authorization from the environmental health officer.

#### Lesions and open sores

**39.** An employee of a food premises who has a lesion or an open sore must take precautions, such as wearing gloves or other protective clothing, to avoid contact between the lesion or open sore and any

- (a) food;
- (b) food contact surfaces;
- (c) equipment;
- (d) utensils;
- (e) other food premises employees who come into contact with any of items listed above; or
- (f) clients.

#### Operator ensures compliance

**40.** An operator of a food premises must ensure that all employees comply with the requirements set out in sections 36, 38 and 39.

### Record retention and access

#### One-year retention period

**41.** (1) All logs, records and documentation required to be created or maintained under the Code or these regulations must be retained at the food premises they relate to for at least one year after their creation.

#### Access by environmental health officers

(2) An operator must

- (a) allow an environmental health officer to inspect any log, record or documentation required to be created or maintained under the Code or these regulations; and
- (b) on request, provide an environmental health officer with a copy of any log, record or documentation required to be created or maintained under the Code or these regulations.

#### Exception – temporary food premises

(3) This section does not apply to temporary food premises.

### Food safety training

#### Definition of "food safety training program"

**42.** (1) In this section, "food safety training program" means a program approved or provided by the Chief Public Health Officer that provides certification and includes training on

- (a) food safety laws;
- (b) understanding food contamination;
- (c) time and temperature control;
- (d) cleaning and sanitizing;
- (e) purchasing, receiving and storing food safely;
- (f) preparing food safely;
- (g) otherwise handling food safely;
- (h) food safety plans;
- (i) food-borne illness and food allergies;
- (j) personal hygiene and workplace behaviour; and
- (k) managing food premises and equipment.

#### Application for approval

(2) A person providing a program that includes the elements listed in subsection (1), or a person who has completed or plans to complete such a program, may apply to the Chief Public Health Officer for approval of the program.

#### Approval of programs

##### (3) The Chief Public Health Officer

- (a) must consider any application under subsection (2) and approve the program if, in the opinion of the Chief Public Health Officer, it adequately includes the elements listed in subsection (1);
- (b) may approve any other program that, in the opinion of the Chief Public Health Officer, adequately includes the elements listed in subsection (1); and
- (c) may provide a program that, in the opinion of the Chief Public Health Officer, adequately includes the elements listed in subsection (1).

#### Operators must be certified

##### (4) The operator of a food premises must

- (a) have certification that indicates that the operator last completed a food safety training program during the previous five years; and
- (b) provide proof of the certification to an environmental health officer upon request.

#### Mandatory presence of certified employee

(5) If an operator is absent from a food premises during operating hours, the operator must ensure that at least one employee present at the food premises

- (a) has certification that indicates that the employee last completed a food safety training program during the previous five years; and
- (b) will provide proof of the certification to an environmental health officer upon request.

Exception – temporary food premises

(5) This section does not apply to temporary food premises, but, for greater certainty, section 2.19.1(b) of the Code applies to temporary food premises.

Owners and operators

Operator acting on behalf of owner

**43.** (1) An operator may, on behalf of an owner, do anything under these regulations that an owner may or must do.

Owner's responsibility

(2) An owner must

- (a) not instruct an operator to contravene the Act or these regulations;
- (b) not condone or knowingly allow the contravention of the Act or these regulations by an operator; and
- (c) if they know or ought to know that an operator is contravening the Act or these regulations, ensure that the contravention is not reproduced or continued.

Transitional

Permits for existing food premises

**44.** If a food premises is in operation on the day these regulations are registered by the Chief Legislative Counsel under the *Legislation Act*, it is exempt from the operation of section 7 and 8 until the later of

- (a) three months after the coming into force of these regulations; or
- (b) if the owner has made an application for a permit before the day that is three months after the day these regulations come into force, the day the permit is issued or refused.

Food safety training for existing food premises

**45.** If a food premises is in operation on the coming into force of section 42, that section does not apply to the operator of a food premises until the day that is 18 months after the coming into force of these regulations.

Coming into force

Coming into force

**46.** (1) These regulations, other than this section, come into force on the day subsection 50(5) of the Act comes into force.

Approvals and permits pending coming into force

(2) Subject to subsection (3), the following actions may be undertaken prior to the coming into force of these regulations:

- (a) making an application under section 6;
- (b) applying for a permit;

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- (c) granting an approval under section 6;
- (d) issuing a permit.

Effective date of approvals and permits

(3) An application that is approved or a permit that is issued before the coming into force of these regulations is deemed to have been approved or issued on the day these regulations come into force.



## SCHEDULE

### NUNAVUT FOOD RETAIL AND FOOD SERVICE CODE

#### **PART 1 DEFINITIONS**

Definitions of common terms contained in the Nunavut Food Retail and Food Services Code are listed below.

"clean" means render free from food residues and other foreign material. (*propre*)

"contamination" means exposure to conditions which may result in:

- a) the introduction of foreign matter including filth or any physical material, a toxic substance, pests; or
- b) the introduction and/or multiplication of disease-causing microorganisms or parasites; or
- c) the introduction or production of toxins. (*contamination*)

"danger zone" means, for potentially hazardous foods such as meat, poultry, fish and shellfish, the temperature zone between 4°C - 60°C (40°F - 140°F), where pathogens can thrive and multiply rapidly and cause foodborne illness. (*zone de danger*)

"equipment" means items that are used in the operation of a food premises. This includes, but is not limited to: dispensing units, stoves, ovens, deep fryers, ventilation systems, slicers, grinders, mixers, scales, cutting surfaces, tables, shelving, refrigerators, freezers, sinks, ice makers, trolleys, vending machines, dish washing machines and lighting systems. (*équipement*)

"first-in-first-out" means rotation of stock such that stock received first is used first. (*premier arrive, premier parti*)

"food" means any raw, cooked, processed edible substance, water, ice, beverage or ingredients used or intended for use, in whole or in part, for human consumption. (*aliment ou nourriture*)

"food allergen" means a component of food, most often a protein, that the immune system treats as being dangerous to the individual and causes the body to have an allergic reaction. (*allergènes alimentaires*)

"foodborne illness" means sickness caused by the ingestion of food containing microbiological or chemical hazards. (*maladie d'origine alimentaire*)

"food contact surface" means the surface of counters, equipment or utensils with which food may normally come into contact. (*surface alimentaire*)

"food grade" means any material that does not yield any substance that may be injurious to the health of a consumer of the food. (*qualité alimentaire*)

"food handler" means an individual working with food, food equipment, utensils and/or food contact surfaces. (*manipulateur d'aliments*)

"food handling area" has the same meaning as in the regulations. (*aire de manipulation des aliments*)

"food premises" has the same meaning as in the regulations. (*local pour services alimentaires*)

"health hazard" has the same meaning as in the *Public Health Act*. (*danger pour la santé*)

"hermetically sealed container" means a rigid, semi-rigid or flexible container designed and intended to be secure against the entry of microorganisms including spores. (*réceptacle hermétiquement fermé*)

"mobile food premises" means a trailer, cart or vehicle-mounted food premises capable of being readily moved. (*local pour services alimentaires mobile*)

"operator" has the same meaning as in the regulations. (*exploitant*)

"pathogen" means a disease-causing organism. (*pathogène*)

"pest" has the same meaning as the regulations. (*ravageurs*)

"pH" is a measure of the degree of acidity or alkalinity. Values between 0 and 7 indicate acidity and values between 7 and 14 indicate alkalinity. The value for pure distilled water is 7, which is considered neutral. (See Appendix A for additional information) (*pH*)

"potable water" means water safe for human consumption. Also referred to as "drinking water". (*eau potable*):

"potentially hazardous food" is described in Appendix A. (*aliment potentiellement dangereux*)

"poultry" means any domesticated bird including chickens, turkeys, ducks, geese or guineas. (*volaille*)

"preparation" means the act of making ready or assembling food for eating. (*préparation*)

"processing" means transforming a food into other forms by actions including, but not limited to: washing, rinsing, thawing, heating, cutting, cooking, smoking, salting, canning, freezing, or pasteurizing. (*transformation*):

"raw ingredient" means any food that enters into the composition of a mixture in a natural, crude or uncooked state. (*ingrédient cru*):

"ready-to-eat foods" means foods that do not require any further preparation before being consumed, except perhaps washing, thawing or moderate reheating if the food in question is customarily eaten hot. (*aliments prêts-à-manger*)

"refrigeration" means exposure to a temperature of 4°C or less but does not mean frozen. (*réfrigération*)

"refuse" means solid waste not carried by water through the sewage system. (*résidus*)

"regulations" means the *Food Safety Regulations*. (*règlement*)

"retail" means the sale of food directly to the public. (*vente au détail*)

"sanitary" has the same meaning as in the regulations. (*salubre ou hygiénique*)

"sanitize" has the same meaning as in the regulations. (*assainir ou désinfecter*)

"seafood" means freshwater or saltwater finfish, molluscan and crustacean shellfish. (*fruits de mer*)

"single-service article" means an item that is designed and constructed for one-time, one person use, after which it is intended to be discarded (e.g. tableware, carry-out utensils, stirrers, straws). (*article à usage individuel unique*)

"single-use article" means an item that is designed and constructed for one-time use, after which it is intended to be discarded (e.g. wax paper, butcher paper, plastic wrap, jars, plastic cups, buckets, bread wrappers). (*article à usage unique*)

"tableware" means utensils for eating, drinking and serving for table use, such as cutlery including forks, knives and spoons, and hollowware including bowls, cups, serving dishes, tumblers and plates. (*vaisselle*)

"toxic substances" means substances that are not intended for ingestion and are hazardous to health if consumed, such as cleaners, sanitizers, pesticides, insecticides, paint and petroleum. (*substances toxiques*)

"utensil" includes kitchenware, tableware, glasses, cutlery or other similar items used in the handling, preparing, processing, packaging, displaying, serving, dispensing, storing, containing or consuming of food. (*ustensile*)

"vending machine" means a self-service device that dispenses servings of food in bulk or in packages without the need to be replenished after each serving. (*distributrice automatique*)

"water activity", abbreviated as " $a_w$ ", is a measure of the relative availability of water in food that could support the growth of microorganisms or their production of toxins. It is measured on a scale of 0 to 1. (See Appendix A for additional information) (*activité de l'eau*)

## **PART 2 CONSTRUCTION, DESIGN AND FACILITIES**

### **2.1 Site and Location**

Sites chosen for food premises must be free from conditions that might interfere with their sanitary operation, including:

- a) No land use conflicts or potential conflicts with adjacent sites.
- b) Set reasonably apart from waste disposal facilities and incompatible processing facilities or trades. Generally a minimum set back of 30 metres is recommended from potential sources of contamination. However, a greater or lesser distance could be accepted depending on specific site conditions.

### **2.2 General Premises Design and Construction Specifications**

- a) Food premises are designed such that food flow is in one direction (receiving, storage, preparation, and packaging/serving).
- b) Incompatible areas or processes, particularly clean-up and chemical storage areas, must be reasonably separated from food preparation/processing areas.

### **2.3 Exterior Openings**

- a) Exterior openings must be protected against the entry of contaminants or pests by:
  - i) filling or closing holes and other gaps along floors, walls and ceilings;
  - ii) using solid, self-closing, tight-fitting doors; and
  - iii) screen doors (a screen size of 16 mesh to 25 mm (1 in.) is generally recommended) that open outward and are self-closing.
- b) If windows or doors are kept open for ventilation or other purposes, the exterior openings must be protected against the entry of pests by:
  - i) screens (a screen size of 16 mesh to 25 mm (1 in.) is generally recommended); or
  - ii) properly designed and installed air curtains to prevent the entry of flying insects and birds.

## 2.4 Walls and Ceilings

- a) Walls and ceilings in food preparation, processing and storage areas must be:
  - i) smooth, non-absorbent, easily cleanable and light coloured;
  - ii) kept in good repair with no evidence of degradation; and
  - iii) kept in a clean and sanitary condition.

## 2.5 Floors

### 2.5.1 Floors

- a) All floors must be kept clean and in good repair.
- b) In food preparation, processing and storage areas, and in washrooms, the floor must be:
  - i) smooth, durable, easily cleanable and non-slip;
  - ii) constructed of impervious material, such as tile or epoxy resin, that is able to withstand regular wet washing;
  - iii) where required, coved at the wall to floor joints, and sealed. Generally a gap of no larger than 1 mm is recommended; and
  - iv) sufficiently sloped for liquids to drain to adequately sized and constructed floor drains (See section 2.6). Generally, a minimum slope of 2% or more is recommended.
- c) Rubber or plastic mats or other smooth, durable floor coverings applied to the floor must be designed for easy removal, cleaning and sanitizing, and made of a non-absorbent material.

### 2.5.2 Floor Coverings

Carpeting or similar material must not be installed as a floor covering in food preparation, processing and storage areas, walk-in coolers/freezers, janitorial/waste rooms, washrooms, change rooms, or other areas subject to moisture or wet cleaning. Where carpet is used, it must be restricted to the dining areas.

### 2.5.3 Floor Coverings for Temporary Food Services

A sufficiently sloped floor may be concrete or machine-laid asphalt. It could be grass, dirt or gravel, if it is covered with mats, removeable platforms, duckboards, or other suitable materials to control dust and mud.

## 2.6 Floor Drains

- a) Floor drains must meet all requirements of the National Plumbing Code of Canada as adopted and modified under the *Building Code Act*, and must:
  - i) effectively prevent accumulation of liquids;
  - ii) be cleaned out on a regular basis;
  - iii) be located so that they are easily accessible, and equipped with removable covers that are flush to the floor; and
  - iv) be equipped with backflow preventers.
- b) Drain lines must be sloped, individually trapped, and properly vented.
- c) The drainage system must be constructed such that there is no cross-connection between the drains or drain lines, and:
  - i) the water supply; or
  - ii) the food product lines or equipment.

## 2.7 Stairs, Catwalks and Mezzanines

- a) Stairs, catwalks and mezzanines must not be located over work areas or exposed food as they can be a source of contamination.
- b) Stairways must be:
  - i) located so as to minimize the risk of food contamination; and
  - ii) constructed of materials that are impervious and easily cleanable.
- c) Catwalks or mezzanines must:
  - i) not be located over food preparation and processing areas, or where splashing or dripping could pose a contamination risk;
  - ii) be constructed of solid masonry or metal construction; and
  - iii) be equipped, where appropriate, with raised edges of a height sufficient to prevent contaminants from falling onto surfaces below.

## 2.8 Lighting

- a) Lighting and lighting fixtures must be designed to prevent accumulation of dirt, be easily cleanable, and be designed to prevent the contamination of food.
- b) The minimum lighting intensities must be:
  - i) 110 lux (at a distance of 89 cm (3 ft.) above the floor) in walk-in coolers, dry food storage areas, and in all other areas and rooms during periods of cleaning;
  - ii) 220 lux (at a distance of 89 cm (3 ft.) above the floor) in areas where fresh produce or packaged foods are sold or

- offered for consumption; areas used for hand washing, ware-washing, and equipment and utensil storage; and in toilet rooms; and
- iii) 540 lux at the surface where a food handler is working with unpackaged potentially hazardous food or with food utensils and equipment such as knives, slicers, grinders or saws where employee/worker safety is a factor.
- c) All lighting fixtures must be shatterproof or shielded with shatterproof coverings. Infrared or other heat lamps must be protected against breakage by a shield surrounding and extending beyond the bulb so that only the face of the bulb is exposed.

## 2.9 Ventilation

The air supplied to the food premises must be of sufficient quality so as not to contaminate the equipment or the food.

- a) Food premises must be provided with adequate natural or mechanical ventilation to keep rooms free of excessive heat, steam, condensation, vapours, odours, smoke and fumes.
- b) Where mechanical ventilation systems are used, they must be designed and installed such that:
  - i) they are sufficient in number and capacity to prevent grease or condensation from collecting on the walls and ceiling;
  - ii) the filters or other grease extracting equipment are easily removable for cleaning and replacement if not designed to be cleaned in place;
  - iii) the exhaust ventilation hood systems is designed to prevent grease or condensation from draining or dripping onto food, food contact equipment or surfaces, utensils and linens, or single-service articles; and
  - iv) they are equipped with make-up air systems, installed in accordance with the National Building Code of Canada as adopted and modified under the *Building Code Act*.
- c) Mechanical ventilation systems must be cleaned in accordance with frequencies stipulated in
  - i) the National Fire Code of Canada adopted under the *Fire Safety Act*; and
  - ii) the National Building Code of Canada as adopted and modified under the *Building Code Act*.

## 2.10 Storage Areas

Stored items must be protected from contamination such as water leakage, pest infestation or any other unsanitary condition.

- a) Food premises require adequate storage facilities for the operation. Foods are to be stored in an area separate from all other items.
- b) Storage areas:
  - i) must have adequate shelving such that all materials, including food and food items, are maintained at a minimum of 15 cm (6 in.) off the floor on racks, shelves or pallets. Shelving must be at least 5 cm (2 in.) from the walls to allow for visual inspection;
  - ii) must be located in a clean, dry, pest-free location; and
  - iii) must be constructed of materials which are durable, non-absorbent and easily cleaned. Unsealed wood is not an acceptable finish for shelves, floors, ceilings or walls.

Note: Section 2.10(b) does not apply to storage of foods in chest type freezers or upright refrigerators and coolers where it is impractical to provide a vertical space from the floor to the chest freezer or cooler. Likewise, pressurized beverage containers, cased food in waterproof containers such as bottles or cans, and milk containers in plastic crates may be stored on a floor that is clean and not expose to floor moisture.

- c) The facilities used for the storage of food, food ingredients and non-food materials such as equipment, utensils, kitchen and table linens, single-service utensils, and packaging must be designed and constructed so that they:
  - i) are located in a clean and dry location;
  - ii) are cleanable;
  - iii) restrict pest access and harbourage;
  - iv) provide an environment which minimizes the deterioration of stored materials; and
  - v) protect food from contamination during storage.
- d) These facilities must not be located:
  - i) in areas used for the storage of soiled linens;
  - ii) in locker rooms;
  - iii) in toilet rooms;
  - iv) in refuse storage rooms;
  - v) in mechanical rooms;
  - vi) under sewer lines that are not shielded to intercept potential drips; or
  - vii) in the same room/vicinity as chemicals or pesticides.
- e) Non-food chemicals such as cleaners, sanitizers, detergents and pesticides must be stored in a manner that prevents contamination of food, food contact surfaces and non-food materials such as utensils, linens, single-service utensils, and packaging materials.
- f) Recyclables, such as bottles and cans, must be stored in a sanitary manner that prevents the attraction and harbourage of pests.



- g) Items not essential to food operation activities must be stored in a separate, designated area that prevents contamination. This includes landscaping tools, broken equipment, marketing materials (signs, posters, etc.) and personal belongings of employees.

## **2.11 Water and Steam Supply**

### **2.11.1 Water and Steam Supply**

- a) Water supplies must be from sources such as:
  - i) a public drinking or potable water system; or
  - ii) a private potable water system that is constructed, maintained, and operated in accordance with the *Public Health Act* and its regulations.
- b) Hot and cold water, under adequate pressure and in sufficient quantities, must be provided to meet the peak demands throughout the food premises. Hot water must be of sufficient temperature to effectively clean and sanitize. (See section 4.2)
- c) Premises that are equipped with their own private water supply must have a written potable water management plan (including treatment of water where required). Samples of the water from the private water supply must be tested in the same manner and at the same frequency as is required for public water supplies under the *Public Water Supply Regulations*. Test results for drinking water from the private water supply must meet or exceed the requirements for public water supplies under the *Public Water Supply Regulations*.
- d) The use of non-potable water in food premises is prohibited.

#### **2.11.1 Water Advisories**

Despite any other provision of this Code, water supplied by a municipal water supply system that is subject to a drinking water advisory may be used in accordance with the instructions provided in the advisory.

## **2.12 Sewage and Refuse Disposal**

- a) Sewage disposal systems must meet the requirements of the *General Sanitation Regulations* and the *Public Sewerage Regulations*.
- b) Disposal of sewage and refuse must be done in a sanitary manner which does not expose the food premises or food products to contamination.
- c) Refuse containers within the premises must be:
  - i) sufficient in number, accessible and located in areas that are away or separate from food or food contact surfaces;

- ii) designed to minimize both the attraction of pests, and the potential for airborne contamination;
  - iii) identified as to their contents; and
  - iv) emptied when full or at least daily.
- d) Refuse and compost storage rooms and containers must be emptied, cleaned and sanitized as often as necessary.
- e) Refuse containers located outside the premises must be:
- i) equipped with covers and closed when not in use;
  - ii) maintained in a manner that does not attract pests; and
  - iii) cleaned regularly and emptied when full or at least two times per week.

### 2.13 Plumbing System

All plumbing must meet the applicable provisions of the National Plumbing Code of Canada as adopted and modified under the *Building Code Act*.

- a) Water conditioning devices, such as water filters or screens, must be designed and installed according to the manufacturer's instructions. They must permit easy disassembly to facilitate periodic servicing and cleaning.
- b) Backflow prevention devices (e.g. air gaps, vacuum breakers) must be installed wherever required.

### 2.14 Overhead Utility Lines

- a) Utility lines such as gas, electrical, sewage and water lines, as well as drain lines and heating ducts, must be located sufficiently distant from food and food contact surfaces to prevent contamination.
- b) Lines must be:
  - i) insulated, where appropriate, to prevent condensation;
  - ii) constructed and covered with a suitable material to minimize build-up of dirt;
  - iii) free of flaking rust or paint;
  - iv) easily cleanable; and
  - v) labelled or colour-coded and accompanied with flow direction indicators.

### 2.15 Hand Wash Stations

- a) At least one hand wash station must be provided in each food preparation and processing area. It must comply with the provisions of the National Building Code of Canada as adopted and modified under the *Building Code Act*.
- b) Hand wash facilities must:

- i) be located to allow convenient use by employees in food preparation, food dispensing and utensil washing areas, and constructed in such a way that avoids splashing of water into food or food contact surfaces;
- ii) be accessible for the use by employees at all times;
- iii) not be used for purposes other than hand washing;
- iv) be provided with soap dispensers (e.g., liquid soap) and sufficient single-service towels in a dispenser, or other drying apparatus;
- v) be equipped to provide hot and cold, or pre-mixed warm, running water set at a temperature of at least 38°C through a mixing valve or combination faucet;
- vi) provide an adequate flow of water. If a self-closing faucet is installed, it must flow for at least 20 seconds without the need to reactivate the faucet;
- vii) be equipped with a sign which explains proper hand washing procedures; and
- viii) be easily cleanable and maintained in a clean and sanitary condition.

## 2.16 Toilet Facilities and Dressing Areas

- a) At least one toilet, and more as required under the *Occupational Health and Safety Regulations* under the *Safety Act*, must be provided for use by workers in each food premises. The facilities must comply with the provisions of the National Building Code of Canada as adopted and modified under the *Building Code Act*.
- b) Toilet rooms must be:
  - i) completely enclosed and provided with a tight-fitting and self-closing door;
  - ii) equipped with a hand wash station;
  - iii) conveniently located and accessible to workers during all hours of operation;
  - iv) provided with hooks outside the facility to hang aprons, white coats, etc.; and
  - v) easily cleanable, well ventilated, and well lit.
- c) Toilet rooms must not open directly into a food preparation, processing or storage area.
- d) Where toilet facilities are provided for the public, access must not be through the food handling or storage areas.
- e) Dressing areas must be provided if workers routinely change their clothes in the food premises. Dressing areas must be:
  - i) easily cleanable;
  - ii) well ventilated and well lit;

- iii) provided with suitable facilities for the storage of workers' possessions; and
- iv) completely enclosed.

## **2.17 Janitorial Facilities**

- a) Every food premises must be equipped with cleaning materials, equipment and facilities that are located away from food handling areas.
- b) The service sink or curbed cleaning facility, equipped with a floor drain, must be conveniently located for the cleaning of mops or similar cleaning tools, and for the disposal of mop water and similar liquid waste.
- c) Adequate storage facilities must be provided for brooms, mops, pails, and cleaning compounds when not in use.

## **2.18 Private Homes, Living or Sleeping Quarters**

- a) A private kitchen or living quarters is not suitable for use as a commercial food premises.
- b) Living or sleeping quarters located adjacent to a food premises must be separated from rooms and areas used for food preparation or storage by complete partitioning and solid self-closing doors.

## **2.19 Temporary Food Premises and Mobile Food Premises**

### **2.19.1 Temporary Food Services and Farmers' Markets**

Temporary food services are those types of food services with a time-limited life (e.g., special events, concessions at fairs and festivals) of less than 14 days in duration per year. Farmers' markets may be time-limited or permanent concessions. The following conditions must be met for both:

- a) Food must be protected from contamination at all times.
- b) Employees engaged in food operations who come directly in contact with food must be trained in or at least have knowledge of food hygiene to a level appropriate to the operations they are to perform .
- c) Facilities which accommodate temporary concessions must be constructed with a suitable floor (refer to section 2.5) and roof to preclude environmental contamination of the food via windblown dust and debris, rain, birds, etc.
- d) Mechanical refrigeration of adequate size for the storage of potentially hazardous foods must be provided and be capable of maintaining the potentially hazardous foods at, 4°C (40°F) or less and in the case of frozen food at 0°C (32°F) or less. Potentially hazardous foods intended to be sold in their frozen state (e.g., hard

ice cream and novelties) may be exempted from the requirement for mechanical refrigeration with temperatures maintained with dry ice.

- e) Where potentially hazardous foods are intended to be held hot, the hot holding equipment must be sufficient in number and capacity to maintain the potentially hazardous foods at 60°C (140°F) or higher.
- f) A two compartment sink with potable water must be supplied. Each compartment must be large enough to immerse the largest piece of equipment or utensil to facilitate washing and sanitizing.
- g) A separate hand wash sink must be supplied and equipped with hot and cold running potable water, soap in a dispenser, and single-service hand towels.
- h) Hot and cold potable water must be supplied on a continuous flow basis. Water under pressure, including by gravity flow, is required. Hot water must be supplied at a minimum of 38°C (100.4°F) .
- i) Suitable thermometers must be provided to measure temperatures during food preparation and food storage.
- j) A covered refuse receptacle of sufficient size must be provided.
- k) Where mobile self-contained water supplies are used, the following requirements must be met:
  - i) the potable water tanks must only be used for storing potable water;
  - ii) the potable water tanks must be sufficiently sized to ensure an adequate supply of water for hand washing, cleaning of equipment, and similar operations;
  - iii) the waste water holding tanks must be sized sufficiently larger than the volume of the potable water supply;
  - iv) an approved site for disposal of the waste water must be specified; and
  - v) the potable water tank must be designed to facilitate cleaning and sanitizing as well as sanitary filling and emptying. Generally, design criteria must include the following:
    - the tank is sloped to an outlet that allows for complete drainage,
    - the tank is enclosed from the filling inlet to the discharge outlet,
    - if the tank has an access port, the port cover must be provided with a gasket and device for securing the cover in place. The cover must be flanged to overlap the opening and sloped to drain,
    - if the tank has a vent, it must terminate in a downward direction and be covered with a screen or filter,

- the tank inlet must be positioned so that it is protected from outside contaminants,
- when compressed air is used to pressurize the potable water tank, a filter that does not pass oil or oil vapours must be installed in the air supply line between the compressor and the potable water system, and
- if a hose is used on the tank outlet, the hose must be cleanable and must not be used for any other purpose.

### **2.19.2 Mobile Food Premises**

Mobile food premises where potentially hazardous food is prepared on-site (e.g., hotdog carts, food trucks), must comply with those provisions outlined in Section 2.19.1 (a to k, except d, where mechanical refrigeration is required), in addition to the provisions outlined below.

- a) The waste water holding tanks must be incorporated into the design of the cart or vehicle.
- b) The potable water tank must have sufficient capacity to meet the needs of the operation.
- c) Enclosed mobile food premises must be adequately ventilated to prevent the accumulation of smoke, condensation and odours.
- d) Vending carts and the portion of the food truck where the food is stored and served must be constructed of durable materials, and be designed with smooth impervious surfaces for easy cleaning.

### **2.19.3 Food Trucks Without Preparation On-site**

Food trucks which serve only pre-packaged foods (whether or not the foods are potentially hazardous) must meet the provisions outlined below.

- a) Food must be protected from contamination at all times.
- b) Where potentially hazardous foods are served, food trucks must be equipped with mechanical refrigeration to ensure the potentially hazardous foods are maintained at 4°C (40°F) or less.
- c) Where potentially hazardous foods are intended to be held hot, the hot holding equipment must be sufficient in number and capacity to maintain the potentially hazardous foods at 60°C (140°F) or higher.
- d) If potable or waste water tanks are provided, they must meet the standards outlined in section 2.19.1(k).
- e) That portion of the food truck where the food is stored and served must be constructed of durable materials, and be designed with smooth, impervious surfaces for easy cleaning.

## **2.20 Vending Machines**

### **2.20.1 Liquid Foods and Ice**

In equipment that dispenses liquid food or ice in unpackaged form, the delivery tube, chute and orifice must be designed such that:

- a) Splashes and drips (including drips from condensation) are diverted away from the container receiving the food (e.g., barriers, baffles or drip aprons).
- b) Tubes, chutes and orifices are protected from manual contact (e.g. recessed).
- c) Where the item is dispensed, the equipment is provided with means to prevent back siphonage.
- d) Delivery tubes, chutes and orifices are protected from dust, insects, rodents and other contamination.
- e) Vending machines designed to store beverages must be equipped with diversion devices and retention pans or drains for container leakage.

### **2.20.2 Self-Service Beverages**

- a) Self-service beverage dispensing equipment is designed to prevent contact between the lip-contact surface of glasses or cups that are refilled and:
  - i) the dispensing equipment actuating lever or mechanism;  
and
  - ii) the filling device.
- b) Beverage equipment that utilizes carbonation equipment (CO<sub>2</sub>) must incorporate a back-flow, back-siphonage prevention device (check valves) to prevent contamination of water supply lines.

### **2.20.3 Low-Risk Foods**

Vending machines that dispense pre-packaged foods that are not potentially hazardous (e.g., chips, pretzels) must be equipped with a self-closing door.

### **2.20.4 Potentially Hazardous Foods**

A machine vending potentially hazardous food must have an automatic control that prevents the machine from vending food if there is a power failure, mechanical failure or other condition that results in an internal temperature that cannot maintain the food temperature required in section 3.3.

The automatic control must prevent the machine from dispensing food until it is restocked and can maintain food at required temperatures.

### **2.20.5 Can Openers/ Stirring Mechanisms**

Cutting and stirring mechanisms on vending machines must be protected from manual contact, dust, pests and other contamination. Both openers and stirring mechanisms must be cleaned on a regular schedule.

## **PART 3 CONTROL OF FOOD HAZARDS**

### **3.1 Incoming Material**

#### **3.1.1 Approved Sources**

All food received at a food premises must be obtained from sources that are listed in subsection 22(1) of the regulations.

#### **3.1.2 Receiving**

- a) Food products received at a food premises must be:
  - i) from an approved source;
  - ii) of acceptable temperature;
  - iii) inspected for appearance, odour, colour and condition of the packaging;
  - iv) in the case of canned foods, closely inspected for imperfections or damage, such as punctures, bulging seam defects or stained labels; and
  - v) in the case of potentially hazardous foods, monitored and documented for its temperature.
- b) Food products that are deemed acceptable must be quickly moved into appropriate storage.

#### **3.1.3 Package Identification**

- a) All food products received at a food premises must be:
  - i) properly packaged and labelled, according to requirements outlined in the *Food and Drugs Act* (Canada), the *Consumer Packaging and Labelling Act* (Canada) and their regulations.
  - ii) labelled with the common name, net quantity, name and address of the responsible party, list of ingredients, and any additional information (e.g. food allergens).
- b) Records
  - i) Invoices, receipts, and lot coding information must be retained, to allow tracking of unlabelled products (such as carcasses, produce or bakery products) or split lots.



- ii) Seafood tags and freezing process records for finfish must be retained for a minimum of one year after use.

### **3.1.4 Disposition**

Food that has been inspected and is found, or suspected, to be unclean, temperature abused, contaminated (e.g. signs of pest or rodent infestation), damaged (e.g. shell eggs that are cracked, dented canned foods, leaking or broken product containers, or food containers with torn or removed tamper evident seals) or in any way unsafe must be rejected or segregated and deemed to be unfit for human consumption.

## **3.2 Temperature Control**

All temperatures are internal product temperatures, as measured by an appropriate food temperature measuring device (as defined in section 4.1.11(d)), unless the product is frozen.

### **3.2.1 Frozen Foods**

Frozen foods must be maintained at a temperature of 0°C (32°F) or less. To maintain their quality, a temperature of -18°C (0°F) or less is required.

### **3.2.2 Thawing**

- a) Potentially hazardous foods must be thawed in a manner that will prevent the rapid growth of foodborne pathogens.
- b) Food may be thawed:
  - i) under refrigeration at 4°C (40°F) or less;
  - ii) completely submerged with its original sealed packaging or in a hermetically sealed container in cold potable water which must be changed every 30 minutes, or under running cold potable tap water;
  - iii) as part of the cooking process (but only when thawing is taken into consideration in determining cooking time); or
  - iv) by microwaving and immediately transferring to conventional cooking equipment with no interruption in the process.
- c) When thawing foods using methods where the thawed portions of the potentially hazardous foods are above 4°C (40°F), as it may be the case under section 3.2.2(b)(ii), the time period above 4°C (40°F), including the time for cooking preparation or the time required to cool the potentially hazardous foods to less than 4°C (40°F), must not exceed 4 hours.

- d) The only exception to the above procedures and temperature requirement is the thawing of frozen ready-to-eat seafood, which must be maintained at 3.3°C (38°F) or less during thawing.

### **3.2.3 Refrigerated Storage**

All potentially hazardous food must be stored at a temperature of 4°C (40°F) or less. This includes foods that have been prepared and cooled to be served cold.

### **3.2.4 Cooking Raw Foods of Animal Origin**

- a) Raw foods of animal origin and food mixtures containing raw foods of animal origin must be cooked to heat all parts of the food to the minimum temperatures and for the minimum times outlined for different foods in Appendix B.
- b) The following raw foods of animal origin may be served at a food premises:
  - i) country food as defined in the regulations;
  - ii) fish;
  - iii) oysters;
  - iv) raw molluscan shellfish;
  - v) steak tartare;
  - vi) carpaccio;
  - vii) salad dressings or shakes containing raw egg.
- c) The operator of a food premises that serves raw foods of animal origin must include on the menu or prominently display in the food premises:
  - i) an indication of which items contain raw foods of animal origin; and
  - ii) a notice that raw foods of animal origin may be a health hazard.

### **3.2.5 Hot Holding**

Potentially hazardous foods that have been prepared, cooked, and are to be served hot, must be held at a temperature of at least 60°C (140°F).

### **3.2.6 Cooling after Cooking**

Potentially hazardous foods that have been cooked and are intended to be kept under refrigerated storage prior to serving, are to be cooled from 60°C (140°F) to 20°C (68°F) or less within two hours and then from 20°C (68°F) to 4°C (40°F) or less within 4 hours as outlined in Appendix B.

### **3.2.7 Cooling from Room Temperature**

Potentially hazardous foods prepared at room temperature and intended to be kept under refrigerated storage prior to serving, must be cooled from 20°C (68°F) to 4°C (40°F) or less within 4 hours as outlined in Appendix B. This includes those foods whose ingredients were canned or made from reconstituted foods.

### **3.2.8 Room Temperature Holding**

- a) Potentially hazardous foods that are intended for immediate consumption may be displayed or held for service above 4°C and below 60°C, for no more than 2 hours, before which time, they must be used, refrigerated or frozen.
- b) Potentially hazardous foods intended for immediate consumption and displayed or held for service at room temperature for more than 2 hours, must be consumed within 4 hours from the time they were removed from temperature control or discarded.
- c) Potentially hazardous foods that are intended for immediate consumption may be displayed or held for service above 4°C and below 60°C for no more than 4 hours, after which they must be discarded.
- d) The foods referred to in sections (a) and (b) must be marked with the time at which they were removed from temperature control.
- e) Section (b) does not apply to food that are processed to be consumed raw such as raw beef intended for steak tartare, raw fish and shellfish intended for sushi and raw eggs or raw eggs preparations such as dressings.

### **3.2.9 Reheating Potentially Hazardous Foods for Hot Holding**

Potentially hazardous foods that have been cooked then cooled to 4°C (40°F) must, if intended for hot holding, be reheated to 74°C (165°F) or higher with the total time between 4°C and 74°C (40°F and 165°F) not to exceed 2 hours.

### **3.2.10 Reheating Potentially Hazardous Food for Immediate Service**

- a) Potentially hazardous foods that have been cooked, and then cooled to 4°C (40°F) once, can, if for immediate service, be served at any temperature, provided the time the food spends between 4°C and 60°C (40°F and 140°F) does not exceed 4 hours, after which time it must be discarded.
- b) Potentially hazardous foods that have been cooked, cooled to 4°C (40°F), reheated and then re-cooled to 4°C (40°F) must, if for immediate service, be served after being reheated to 74°C (165°F)

or higher to destroy any pathogenic microorganisms. Liquids such as soup or gravy must be brought to a rolling boil.

### **3.2.11 Use of Microwave for Cooking or Reheating**

Potentially hazardous foods that are cooked or reheated in the microwave must be rotated or stirred throughout or midway during cooking to compensate for uneven distribution of heat, so that all parts of the food reach a temperature of at least 74°C (165°F). The food must be allowed to stand covered for a minimum of 2 minutes after cooking to obtain temperature equilibrium.

### **3.2.12 Freezing for Parasite Destruction**

- a) Fish that is intended to be consumed raw, raw-marinated, partially cooked and marinated-partially cooked, must either be:
  - i) frozen by the supplier in the manner described below, and obtained from the supplier in a frozen state; or
  - ii) frozen within the food premises, as described below.
- b) The fish described in section a) must be frozen either:
  - i) to a temperature of -20°C (-4°F) or colder for 7 days; or
  - ii) to a temperature of -35°C (-31°F) or colder for 15 hours in a blast freezer.
- c) Section b) does not apply to
  - i) Yellowfin tuna, Bluefin tuna and Bigeye tuna;
  - ii) farm-raised fish, including salmon, that are
    - raised in net-pens or land-based operations such as ponds or tanks, and
    - fed formulated feed that does not contain live parasites.

## **3.3 Water**

### **3.3.1 Water in Contact with Food and Food Contact Surfaces**

Only potable water, in the form of liquid, steam or ice, may come in direct or indirect contact with food or food contact surfaces during food handling, preparing, processing, and cleaning.

### **3.3.2 Steam**

Non-potable water used for the production of steam must not come in contact with food or food contact surfaces.

### **3.3.3 Ice as an Ingredient**

Ice added as an ingredient to any food must be made from potable water. Ice used for cooling exterior surfaces of food containers must not be used as a food.

## **3.4 Preventing Contamination**

The operator of a food premises must ensure that food is stored, displayed, processed, prepared and served in a manner that prevents the food from becoming contaminated.

### **3.4.1 Microbial Contamination**

- a) Access to food preparation areas must be restricted, as much as practically possible, to designated food handlers.
- b) Where the public has access to food other than raw, unprocessed fruit and vegetables, or food specifically served to a customer by a worker of the food premises, the food must be protected from public handling and contamination by the use of packaging, display cases, or salad bar sneeze guards (food guards), and be provided with suitable utensils designed in such a way that the handle does not come into direct contact with the food, or other effective dispensing methods.
- c) Food handlers must avoid contacting exposed ready-to-eat foods with their bare hands and use, as much as practically possible, clean and sanitized utensils such as tongs, spatulas, disposable gloves or other food dispensing apparatus.
- d) Food must be protected from cross contamination by separating raw foods during storage, processing, preparation, holding and display from ready-to-eat foods.
  - i) Ready-to-eat foods and raw fruits and vegetables under refrigerated storage must not be stored below raw meat, poultry and fish products.
  - ii) Raw or unprocessed food must be prepared in a way that does not promote contamination of ready-to-eat foods. This could include using colour-coded cutting surfaces or cleaning and sanitizing surfaces before reuse.
- e) Raw fruits and vegetables must be thoroughly washed in running potable water to remove soil and other contaminants before being cut, combined with other ingredients, cooked, served, or offered for human consumption in ready-to-eat form. This does not apply to whole raw fruits and vegetables that are intended for washing by the consumer following point of sale. If whole raw fruits and vegetables offered for sale in retail displays are sprayed, potable water must be used.

- f) Cleaning and sanitizing of food contact surfaces must be carried out as described in section 4.2.
- g) Food must not come into contact with surfaces of utensils and equipment that have not been cleaned and sanitized in accordance with procedures described in section 4.2.
- h) When food handlers taste test food, only cleaned and sanitized utensils may be used, and the utensils must be cleaned and sanitized before reusing.
- i) Foods that have been previously purchased and returned to the food premises may not be re-offered for sale to another consumer, unless those foods are low risk (refer to Appendix A) and are in their unopened original package (e.g., creamers, crackers, condiments).

#### **3.4.2 Physical and Chemical Contamination**

- a) Non-food items must be stored in designated areas away from any food, food equipment or food contact surfaces.
- b) Foods must not contain unapproved food additives or food additives in excess of the amounts listed in the *Food and Drugs Act* (Canada) and its regulations.

### **3.5 Packaging**

#### **3.5.1 Protection of Food Content**

Food packages must be in good condition and protect the integrity of the contents so that the food within is not exposed to damage or contamination.

#### **3.5.2 Food Grade Packaging**

Packaging materials or atmospheric packaging gases, where used, must not pose a threat to the safety and suitability of food under the specified conditions of storage and use.

#### **3.5.3 Food Containers**

- a) The operator of a food premises must ensure that only food grade containers are used.
- b) High-acid foods (pH below 4.6) must not be stored or cooked in containers coated with, made of, or containing:
  - i) lead or lead-based products, including lead-glazed ceramics, china, crystal or pewter;
  - ii) zinc, such as galvanized containers;
  - iii) enamelware, which may chip and expose the underlying metal;

- iv) copper and copper alloys such as brass; or
- v) cast iron.
- c) Cast iron may be used only under the following conditions:
  - i) as a surface for cooking;
  - ii) in utensils for serving food, if the utensils are used only as part of an un-interrupted process from cooking through service.

### **3.5.4 Reusable Packaging**

Reusable packaging must be food grade, durable, clean, and if required, able to withstand sanitizing.

### **3.5.5 Storage of Packaging Supplies**

Packaging supplies must be stored in a sanitary location and away from hazardous materials.

### **3.5.6 Returnable Packaging**

- a) Except as specified in section (b), returned empty containers intended for cleaning and refilling with food, must be cleaned, sanitized and refilled only in a regulated food processing plant.
- b) Food specific containers for beverages only may be refilled in a food premises if:
  - i) the beverage is not a potentially hazardous food;
  - ii) the design of the container, the rinsing described in section (iii), and the nature of the beverage, when considered together, allow for effective cleaning at home or in the food premises;
  - iii) facilities for rinsing the containers with un-recirculated hot water under pressure are part of the dispensing system; and
  - iv) the consumer-owned container returned to the food premises for refilling is refilled only for the same consumer.

## **3.6 Transportation, Storage and Distribution of Food Products**

During all phases of transportation, storage and distribution, food products must be maintained in a sanitary condition.

### **3.6.1 Verification**

Foods must be routinely monitored during transportation, storage and distribution to verify that foods are protected from:

- a) all possible forms of contamination;

- b) all types of damage that may render the food unfit for human consumption; and
- c) temperature abuse.

### **3.6.2 Food Transportation, Storage and Distribution Units**

Food transportation, storage and distribution units include, but are not limited to, vehicles, containers, boxes, bulk tanks and trailers used to transport food.

- a) Food transportation, storage and distribution units must be:
  - i) designed, constructed, maintained and used in a manner that protects food from being contaminated; and
  - ii) inspected to ensure that they are free of contaminants, and suitable for the purposes intended.
- b) Food transportation, storage and distribution units must be constructed with non-toxic materials, which are easy to maintain and clean (See section 4). Examples include stainless steel and food-grade plastic.
- c) Where both food and non-food products are transported, stored and distributed together, procedures must be in place to ensure that food products are not exposed to contamination from non-food products.

### **3.6.3 Handling and Transfer of Foods**

- a) Food must be handled or transferred in a way that does not cause damage, contamination or adulteration of the food.
- b) A visual inspection of food, including packaging materials, is necessary to ensure that food is free from contamination and deterioration. If the food is contaminated or deteriorated, it must be discarded or effectively segregated until it is returned to the supplier.
- c) Temperatures of potentially hazardous foods must be monitored during transportation, storage and distribution. They must be checked upon receipt and documented.
- d) Potentially hazardous foods must be quickly transferred into temperature controlled storage, to minimize the time in which they are in the “danger zone”.

### **3.6.4 Storage Procedures**

Upon receipt of food products, foods that require refrigeration must be stored first, frozen products second, and dry goods last.

- a) Refrigerated ready-to-eat potentially hazardous foods, prepared and held for more than 24 hours, must be marked with the date of



preparation and the durable life of the food, as prescribed in paragraph B.01.007(1.1)(c) of the *Food and Drugs Regulations* (Canada). In general, refrigerated ready-to-eat potentially hazardous foods must be discarded if not consumed within 7 days from the date of preparation.

- b) Rotation and use of food stocks in storage areas must follow the "first-in-first-out" rule.
- c) Foods must be stored off the floor and away from walls.

### **3.6.5 Temperature Controls**

- a) All potentially hazardous foods requiring temperature controlled environments must be transported, stored or distributed in equipment units that consistently maintain those temperature controls.
- b) Equipment units for cold and/or hot holding of potentially hazardous foods must have suitable, accurate and reliable temperature control and monitoring devices. All such equipment units and devices must be functioning properly and must be calibrated and verified for accuracy according to section 4.1.11d).
- c) Equipment units must be maintained to achieve and maintain temperatures that are consistent with those specified in section 3.2.

## **PART 4 MAINTENANCE AND SANITATION**

A food premises must have effective systems in place to:

- a) ensure adequate and appropriate maintenance and cleaning of the facilities and equipment;
- b) control pests;
- c) remove wastes; and
- d) monitor and record the effectiveness of maintenance and sanitation procedures.

### **4.1 Equipment**

Equipment used in a food premises must be kept in a clean and sanitary condition to minimize the risk of contamination of food.

#### **4.1.1 Location**

- a) Equipment used in a food premises must be located so that it:
  - i) is not exposed to any sources of contamination unrelated to the normal operations of the food premises;
  - ii) may be maintained, cleaned and sanitized;
  - iii) may be inspected;

- iv) may be properly vented when required; and
- v) functions in accordance with its intended use.
- b) Equipment used in processing, handling and storage of foods (including single-service and single-use articles) must not be located in any area where the equipment may become contaminated, such as staff locker rooms, toilet rooms, refuse storage rooms, mechanical rooms, under sewer or water lines not shielded to intercept leakage/condensate, or under open stairwells.

#### **4.1.2 Fixed Equipment**

Equipment that is fixed must be either:

- a) sealed to adjoining walls, floors and other equipment; or
- b) placed in such a manner to allow for cleaning under and around equipment.

#### **4.1.3 Design and Construction**

- a) Equipment and utensils must be designed and constructed to be durable and to retain their characteristic qualities under normal use and conditions.
- b) Food service equipment and utensils must comply with international food service equipment standards such as those administered by third parties such as the Canadian Standards Association (CSA), American National Standards Institute (ANSI), NSF International (NSFI) and Underwriters' Laboratories of Canada (ULC).

#### **4.1.4 Food Contact Surfaces**

All food contact surfaces must be:

- a) made of materials that are corrosion resistant;
- b) made of materials that do not impart colour, odour or taste to food and do not allow leaching of unsafe substances into food;
- c) smooth and non-absorbent;
- d) free from breaks, cracks, open seams, chips, pits and similar imperfections;
- e) free from sharp internal angles, corners and crevices;
- f) finished to have smooth welds and joints; and
- g) accessible for cleaning and inspection (e.g., by disassembly).

#### **4.1.5 Use of Wooden Food Contact Surfaces**

- a) Only hard maple or any equivalently hard, close-grained wood , may be used as a suitable material for:
  - i) cutting boards; cutting blocks; bakers' tables;

- ii) utensils such as rolling pins, doughnut dowels, salad bowls, and chopsticks; and
  - iii) wooden paddles, which are used in confectionery operations for pressure scraping kettles when manually preparing confections at a temperature of 110°C (230°F) or above.
- b) Only food grade sealants must be used as a preservative for wooden food contact surfaces.
  - c) Whole, uncut, raw fruit and vegetables and nuts in the shell may be kept in the wooden shipping containers in which they were received until these foods are used.

#### **4.1.6 Non-Food Contact Surfaces**

In order to minimize the likelihood of food contamination, non-food contact surfaces must be:

- a) free from unnecessary ledges, projections and crevices; and
- b) designed and constructed to allow easy cleaning and to facilitate maintenance.

#### **4.1.7 Cleaned-in-Place Equipment (CIP)**

Equipment that is intended to be "Cleaned-in-Place (CIP)" is designed and constructed so that:

- a) cleaning and sanitizing solutions circulate through a fixed system and contact all interior food contact surfaces;
- b) the system is self-draining or capable of being completely drained of cleaning and sanitizing solutions; and
- c) there are inspection access points to ensure all interior food contact surfaces throughout the fixed system are being effectively cleaned.

#### **4.1.8 Filters and Grease Extraction Equipment**

- a) Filters or other grease extracting equipment must be:
  - i) designed to be readily removable for cleaning and replacement if not designed to be cleaned in place; and
  - ii) cleaned regularly.
- b) Exhaust ventilation hood systems in food preparation areas and utensil and equipment washing areas, including components such as hoods, fans, guards, and ducting, must be designed to prevent grease or condensation from draining or dripping onto food, food contact surfaces, equipment, utensils, linens, and single-service and single-use articles.
- c) Ventilation hood systems and devices must be sufficient in number and capacity to prevent grease or condensation from collecting on walls and ceilings.

#### **4.1.9 Maintenance**

Equipment must be maintained in good repair, so that it functions in accordance with its intended use.

#### **4.1.10 Maintenance of Cutting Surfaces**

Surfaces such as cutting blocks and boards that are subject to scratching and scoring must be resurfaced if they can no longer be effectively cleaned and sanitized, or discarded if they are not capable of being resurfaced.

#### **4.1.11 Heating and Cooling Equipment**

- a) Equipment used to cook, heat, cool, store or freeze potentially hazardous food must be designed and operated to achieve and maintain the required food temperatures as described in section 3.2.
- b) Equipment in the food premises must be sufficient in capacity to maintain all potentially hazardous food at the temperatures specified in section 3.2.
- c) Equipment used to heat or cool foods must have devices to measure and control temperatures.
- d) Temperature measuring devices must be easily readable and accurate to  $\pm 1.0^{\circ}\text{C}$  ( $\pm 2.0^{\circ}\text{F}$ ) in the operating range, and calibrated on a regular basis to ensure correct functioning. Calibration logs must be maintained for each piece of equipment, as well as records of corrective action taken as required.

#### **4.1.12 Food Temperature Monitoring Equipment**

Food temperature measuring devices must be suitable for their intended purpose and for the food being monitored. They must not have sensors or stems constructed of glass unless they are encased in a shatterproof sleeve.

Temperature measuring devices must be easily readable and accurate to  $\pm 1.0^{\circ}\text{C}$  ( $\pm 2.0^{\circ}\text{F}$ ) in the operating range, and calibrated on a regular basis to ensure correct functioning.

#### **4.1.13 Containers for Refuse, By-products, Recyclables and Inedible Substances**

Containers for refuse, by-products, recyclables and inedible substances must be:

- a) specifically and properly identified;
- b) leak-proof;

- c) constructed of an impervious material which is easy to clean or disposable;
- d) covered; and
- e) securely closable, if appropriate.

## **4.2 Cleaning and Sanitation**

### **4.2.1 Written Sanitation Program**

Food premises must have a written sanitation program in place to monitor and control all elements in section 4.0, which generally must:

- a) outline the parameters to be controlled in the food premises to ensure safety of the food product.
- b) include sanitation procedures for equipment, utensils or refrigeration units that have an impact on food safety. Procedures must specify:
  - i) areas, equipment and utensils to be cleaned;
  - ii) the designated food handlers responsible for the cleaning and sanitizing;
  - iii) the chemicals and/or cleaning products (including concentrations and contact times) and process to be used;
  - iv) the processes to be used;
  - v) the frequency of cleaning and sanitizing; and
  - vi) inspection and monitoring records.
- c) document that the sanitation program is monitored and its effectiveness verified.

### **4.2.2 Cleaning Frequency: Non-Food Contact Surfaces**

Non-food contact surfaces must be cleaned at a frequency that prevents the accumulation of dust, dirt, food residue and other debris.

### **4.2.3 Cleaning Frequency: Food Contact Surfaces**

- a) Food contact surfaces must be maintained, cleaned and sanitized (see sections 4.2.4 and 4.2.5) at a frequency that prevents contamination of food.
- b) Equipment that is used continuously at room temperature for the handling of potentially hazardous foods (e.g., deli meat slicers) must be cleaned and sanitized at least every four hours and at the end of the operation.

#### **4.2.4 Cleaning of Food Contact Surfaces**

Cleaning processes for all food contact surfaces must effectively remove food residues and debris.

Cleaning must involve:

- a) removing gross debris from surfaces;
- b) applying a detergent solution to loosen soil and hold it in solution and suspension;
- c) rinsing with clean potable water to remove loosened soil and residues of detergent; and
- d) sanitizing (see section 4.2.5).

#### **4.2.5 Sanitizing of Food Contact Surfaces**

- a) Food contact surfaces must be sanitized by heat or chemical means.
  - i) Sanitizing requires a standard 5 log reduction of disease-causing microorganisms.
  - ii) Alternate sanitizing methods will need to be evaluated against achievement of this standard.
- b) Food contact surfaces must be air-dried after sanitizing.
- c) If applicable, food contact surfaces must be handled and stored in a place and manner that prevents contamination.
- d) Wiping cloths used for cleaning up food spills on food contact surfaces must be routinely cleaned. When not in use, wiping cloths must be kept in a separate sanitizing solution which is maintained at an adequate concentration and free of debris, cloudiness and other matter that may interfere with the effectiveness of the sanitizer.

#### **4.2.6 Mechanical Dishwashing: Chemical Sanitizing Methods**

Mechanical dishwashing machines employing chemical agents to sanitize utensils and equipment must be designed to apply the sanitizing solution as specified below:

- a) A chlorine solution must have a minimum temperature based on the concentration and pH of the solution as listed in Table 1.

Table 1  
Allowable minimum chlorine concentrations and temperature combinations for mechanical and manual dishwashing

Minimum Concentration mg/l (ppm)	Minimum Temperature pH 8 to 10	Minimum Temperature pH 8 or below
25	49°C (120°F)	49°C (120°F)
50	38°C (100°F)	24°C (75°F)
100	13°C (55°F)	13°C (55°F)

- b) Unless the manufacturer's specifications state otherwise, an iodine solution used as a sanitizing agent must have:
  - i) a minimum temperature of 20°C (68°F);
  - ii) a pH of 5.0 or below; and
  - iii) a concentration between 12.5 mg/L and 25 mg/L.
- c) A quaternary ammonium compound solution used as a sanitizing agent must:
  - i) have a minimum temperature of 24°C (75°F);
  - ii) have a concentration of 200 mg/L or as indicated in the manufacturer's specifications; and
  - iii) be used only in water with a hardness concentration of less than 500 mg/L.
- d) The operator must ensure that the temperature of the water and sanitizer concentration are checked to ensure that effective results are occurring. Test kits/strips that accurately measure the concentration of sanitizing solutions must be available.
- e) Operators must keep records of sanitizer concentrations and temperatures.

**4.2.7 Mechanical Dishwashing: Hot Water Sanitizing Methods**

- a) The temperature of the wash solution in spray type ware washers that use hot water to sanitize may not be less than:
  - i) for a stationary rack, single temperature machine, 74°C (165°F);
  - ii) for a stationary rack, dual temperature machine, 66°C (151°F);
  - iii) for a single tank, conveyor, dual temperature machine, 71°C (160°F);
  - iv) for a multi-tank, conveyor, multi-temperature machine, 66°C (151°F).
- b) Mechanical dishwashing machines employing water temperature as a means of sanitizing utensils and equipment must ensure that dishware is exposed to clean rinse water for at least 10 seconds, at a temperature (measured at the manifold or other suitable area) of:

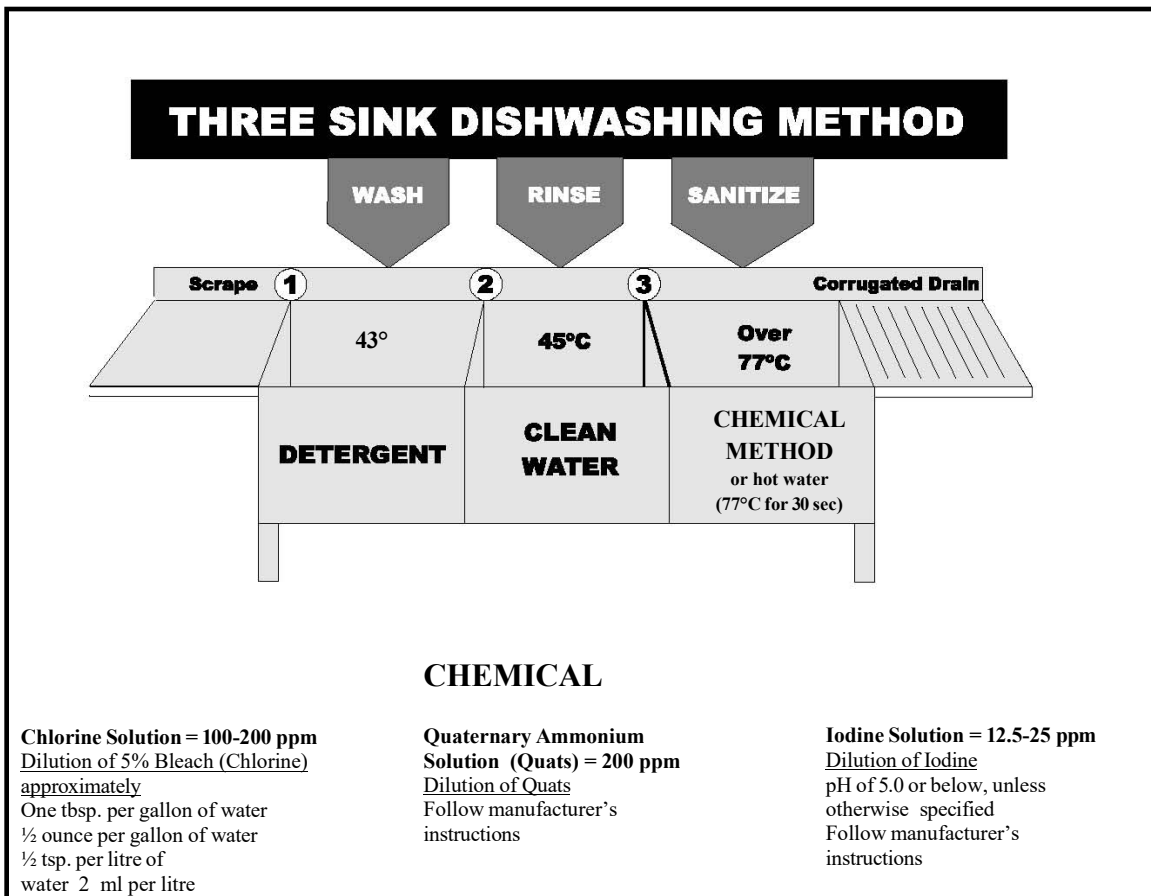
- i) 74°C (165°F) for single tank, stationary rack, single temperature machines; or
- ii) 82°C (179°F) for all other machines.

#### 4.2.8 Manual Dishwashing

- a) When relying on the manual method for washing and sanitizing, the manual dishwashing equipment must include:
  - i) a three compartment sink of non-corrodible metal of sufficient size to permit complete immersion of the utensils to be sanitized;
  - ii) draining boards (if they are to be provided) of non-corrodible and non-absorbent material;
  - iii) a thermometer capable of measuring temperatures between 0°C and 100°C (32° F and 212° F); and
  - iv) testing equipment to determine the strength of any chemical used as the sanitizing agent.
- b) When relying on the manual method for washing and sanitizing, the operator must ensure the use a three compartment sink and the following procedure:
  - i) scrape clean any gross debris and food residue;
  - ii) wash in the first compartment sink in detergent solution capable of removing grease and food particles and that is maintained at a temperature of not less than 43°C (110°F), or as specified on the cleaning agent manufacturer's label instructions;
  - iii) rinse in the second compartment sink in clean potable water maintained at a temperature of not less than 45°C (113°F); and
  - iv) sanitize in the third compartment sink by immersion, in one of the following methods:
    - for at least 30 seconds in water at a temperature of at least 77°C (171°F);
    - for at least 7 seconds in an allowable minimum chlorine concentration of 50 mg/L, and at least 10 seconds for other allowable minimum chlorine concentrations as listed in section 4.2.6, Table 1;
    - for at least 30 seconds (or as recommended by the manufacturer ) in a solution containing a quaternary ammonium compound having a strength of not higher than 200 mg/L consistent with efficacy at a temperature of not less than 45°C (113°F);
    - for at least 30 seconds in an iodine solution having a concentration of between 12.5 to 25 mg/L iodine at a temperature of not less than 45°C (113°F); or



- in accordance with any other method that has been scientifically proven to produce results equivalent to those achieved by use of any of the methods in this section. NOTE: The solutions used for the methods outlined in this section must be completely changed often enough to prevent utensils from becoming soiled and to maintain the bactericidal effect of the solution.
- v) air-dry.
- c) The operator must ensure that the temperature of the water and the sanitizer concentration are tested frequently to ensure that effective sanitizing is occurring.



**4.2.9 Manual Dishwashing – Exception**

Despite section 4.2.8, an operator may use a two-compartment sink, or two separate sinks, for the manual washing and sanitizing of utensils used for handling food if:

- a) washing and rinsing can effectively be done in the first compartment or sink;

- b) sanitizing can effectively be done in the compartment or sink; and
- c) it is not used for utensils used in consuming of food.

### **4.3 Pest Management**

Pests may carry pathogenic organisms that can contaminate food and food contact surfaces. In establishing integrated pest management, contamination from pests can be significantly reduced in a food premises.

#### **4.3.1 Pest Management Requirements**

Every operator of a food premises must ensure that the premises is:

- a) free of pests;
- b) free of conditions that lead to the harbouring or breeding of pests; and
- c) protected against the entrance of pests.

#### **4.3.2 Controlling Pests**

The presence of pests must be controlled by:

- a) routinely inspecting incoming shipments of food and supplies;
- b) routinely inspecting the premises and its surroundings for evidence of pests;
- c) treatment with chemical, physical or biological agents undertaken by a qualified pest control operator or under direct supervision of personnel who have thorough understanding of the potential hazards to health; and
- d) eliminating harborage conditions.

#### **4.3.3 Immediate Corrective Action**

Inspection must be followed by:

- a) eliminating pest access points;
- b) removing dirt, soil or filth if present;
- c) verifying cleaning procedures;
- d) cleaning and sanitizing surfaces contaminated by pests;
- e) destroying and sealing off nests and breeding places; and
- f) protecting the food premises against the entrance of pests.

#### **4.3.4 Documentation**

- a) To verify that appropriate pest control measures have been undertaken, all aspects of pest control operations must be documented and monitored.
- b) Documentation must include:
  - i) the name of the pest control firm responsible;

- ii) the chemicals used for pest control (with the concentrations applied);
- iii) the procedures and methods used;
- iv) the frequency of application; and
- v) records of inspection and monitoring.

#### **4.4 Use of Chemicals and Toxic Substances**

- a) Chemicals, cleaning and disinfecting compounds and other toxic substances kept in a food premises must be:
  - i) used in compliance with the manufacturer's labelling, directions or specifications; and
  - ii) used only in such a manner and under such conditions that they do not contaminate food, food equipment or food contact surfaces, or cause a health hazard.
- b) The chemicals, cleaning and disinfecting compounds and other toxic substances must be stored:
  - i) in a compartment separate from food, food contact surfaces and utensils; and
  - ii) in clearly labelled, non-food containers, which, where appropriate, would fit in a lockable compartment.

#### **4.5 Waste Management**

##### **4.5.1 Waste, Refuse and Recyclable Materials**

Waste, refuse and recyclable materials must be removed from the food premises at a frequency that will minimize the development of objectionable odours and other conditions that attract or harbour insects, rodents or other pests. Generally, these materials must be removed daily.

##### **4.5.2 Sewage and Other Liquid Waste**

Sewage waste systems and other non-sewage liquid conveyance and disposal systems must be maintained in good working order and flushed clean on a periodic basis.

#### **4.6 General Maintenance Schedules**

Surfaces, such as floors, walls and ceilings, must be cleaned at a frequency that will prevent the accumulation of dust, dirt, food residue and other debris.

## **APPENDIX A**

### **Potentially Hazardous Foods**

While many foods can be hazardous under specific circumstances, this review is provided to supply background information about the factors involved in dealing with those foods which have the greatest potential to be hazardous by supporting microbial growth.

Potentially hazardous foods are generally defined as foods in a form or state that is capable of supporting the rapid and progressive growth of infectious and/or toxigenic microorganisms. Such foods include, but are not limited to, milk or dairy products, eggs, meat, poultry, fish, shellfish (edible Mollusca and crustaceans), tofu products and sprouts.

Other foods that fall into the "potentially hazardous" category include certain baked goods (e.g., those with cream filling) and some types of vegetables. Not included are foods which have a pH level of 4.6 or below and foods which have a water activity of 0.85 or below.

#### **1. What are potentially hazardous foods?**

The term "potentially hazardous" is used in a microbiological, not a chemical, or toxicological sense.

It is understood that the term "potentially hazardous" refers largely to foods that are prone to temperature abuse (that is, they may be kept in the "danger zone" at temperatures greater than 4°C (40°F) when they are supposed to be refrigerated, or kept at temperatures below 60°C (140°F) when they are supposed to be kept hot).

Exposure to temperature-abuse could occur due to inadvertent delays during preparation, transportation, marketing or handling along the food continuum.

#### **2. What is pH and water activity?**

The pH of a food product is a scale by which the acidity and/or alkalinity of a product is measured. By definition, it denotes the hydrogen ion concentration or, more simply, the acidity level of the product. The lower the pH number, the more acid is in the product. pH values range from 0 to 14. Potentially hazardous foods have a pH greater than 4.6 which favours growth of pathogenic organisms.

The term water activity, denoted by the symbol " $a_w$ ", refers to the amount of water in the food product that is available to the growing microorganism.

Water activity has been defined as the ratio of the water vapour pressure of the food and the vapour pressure of pure water at the same temperature. For this reason, water activity values range from 0 to 1 but never exceed 1. Potentially

hazardous foods have water activity values favouring growth of disease-causing organisms (i.e. greater than 0.85).

**3. What are the general characteristics of these potentially hazardous food products?**

Potentially hazardous foods are low-acid ( $\text{pH} > 4.6$ ) and high water activity ( $a_w > 0.85$ ) foods, and include those products marketed as ready-to-eat refrigerated foods. Such products generally do not receive sufficient heat to kill spore-forming microorganisms (e.g., *Clostridium botulinum* and others) which may be present in the raw ingredients.

Typical packaging may include loose wrapping on supporting paperboard or Styrofoam trays, hermetically sealed containers such as glass jars, metal cans, plastic containers, plastic pouches or paperboard containers. The shelf-life of some of these products may have been extended under specific conditions or treatment such as vacuum or modified atmosphere-packaging. Typically, these products are retailed in the refrigerated dairy, meat or delicatessen sections of food stores.

**4. Are all raw foods potentially hazardous?**

No. Raw foods are considered potentially hazardous if they support the growth of food-poisoning organisms.

Raw meats, raw fish, raw eggs, and unpasteurized milk must be cooked, pasteurized or otherwise prepared in order to kill any food-poisoning and spoilage bacteria they may carry.

**5. What kinds of foods are excluded from the potentially hazardous foods category?**

Foods which do not fall into the potentially hazardous category are:

- (a) Frozen foods which remain frozen up to the time of cooking.
- (b) Commercially canned, shelf stable foods which are safely stored in their original intact containers at normal room temperatures; (for example, canned pâté, canned corned beef or canned vegetables). Once the container has been opened, these foods are potentially hazardous because all contaminating bacteria can grow rapidly in the absence of competing micro flora.
- (c) Acidified foods ( $\text{pH} \leq 4.6$ ) such as sauerkraut, pickles, etc., and/or low-moisture ( $a_w < 0.85$ ) foods such as peanuts and cereals.

**6. Why are sprouts and raw mushrooms considered potentially hazardous?**

On several occasions, sprouts have been responsible for food poisoning, probably as a result of contamination with and subsequent growth of *Salmonella*, *Bacillus cereus* or *Klebsiella*.

*Clostridium botulinum* spores occur frequently in cultivated mushrooms. In laboratory experiments, it has been shown that *Clostridium botulinum*, if present, will grow and produce toxin in raw mushrooms which have been tightly wrapped and stored at room temperatures. It has therefore been recommended that raw mushrooms be refrigerated, and that packaging allow free exchange of air.

**7. What are the concerns about extending the shelf-life of modified atmosphere-packaged or vacuum-packaged and sous-vide type foods?**

The concerns are that pathogens such as *Clostridium botulinum* and *Listeria monocytogenes*, if present, may grow during the unduly extended shelf-life of these refrigerated products. These and other microorganisms are capable of growth and/or toxin production under the conditions created by the new technologies without any obvious signs of spoilage in the food itself

**8. What factors in general control the growth of food poisoning organisms in food?**

Factors controlling the growth of disease-causing microorganisms include: water activity ( $a_w$ ), acidity (pH), temperature and time, the surrounding atmosphere, the inherent resistance of the food itself and other factors. An understanding of these factors is important in food processing as this knowledge can be used to assure food safety.

Potentially hazardous foods require careful monitoring of temperatures. In many cases, adherence to proper temperature control — either refrigeration at 4°C (40°F) or less, or hot holding above 60°C (140°F) — is the sole means of preventing, or at least limiting, the growth of food poisoning microorganisms.

**9. Why is the water activity of a food product so important?**

Water activity is important in foods because it is a major factor in determining whether a microorganism will or will not grow. Different microorganisms have characteristic minimum, optimum, and maximum water activity values permitting growth. One can prevent growth of pathogens by adjusting the water activity of a given food to a value below the minimum water activity permitting growth.

### *Risk levels*

**High-risk foods** are non-acidic or slightly acidic, moist, and protein foods. These food products require a number of complex control steps to ensure product safety (i.e., proper temperature requirements at various stages of preparation). These foods include meat and meat products, milk and milk products, eggs, poultry, fish and shellfish, tofu products, and sprouts, as well as gravies, puddings, custards, cream-filled baked goods, potato and other mayonnaise-based salads, cream-based soups and sauces, and unpasteurized products, such as juice, cider and cheeses.

**Medium-risk foods** are food products which require a certain step to minimize potential health risk (i.e., proper cold holding techniques). These foods include packaged vegetables, cooked cereals, soft cheeses, fresh, uncooked meat and meat sandwich spreads.

**Low-risk foods** are food products which do not pose significant health hazards by themselves. These products include ready to eat foods, peanut butter, bread, crackers, butter, dry cereals, and all foods in cans and flexible pouches until the cans or pouches are opened.

**APPENDIX B**  
**Time/Temperature Control - Raw Animal Foods**

Pathogen reduction involves a time-temperature relationship. The following minimum requirements must be adhered to. Other time-temperature regimens might be suitable, if it can be demonstrated, with scientific data, that the regimen results in a safe food.

NOTE: To kill microorganisms, food must be held at a sufficient temperature for a sufficient time. Cooking is a scheduled process in which each of a series of continuous temperature combinations can be equally effective. For example, in cooking a beef roast, the microbial lethality achieved at an internal temperature of 54°C (130°F) for 121 minutes is the same lethality attained as if it was cooked to an internal temperature of 63°C (145°F) for 3 minutes.

Critical Step	Temperature Requirement
<b>Refrigeration</b>	4°C (40°F) or less
<b>Freezing:</b>	minus 18°C (0°F) or less
<b>Parasite Reduction: Raw Fish</b>	minus 20°C (minus 4°F) for 7 days or, minus 35°C (minus 31°F) in a blast freezer for 15 hours
<b>Cooking (for instant kill step, or for specified time period):</b>	
<b>Meat, poultry, eggs and fish</b>	
<i>Beef, veal and lamb (pieces and whole cuts)</i>	
Medium-rare	63°C (145°F)
Medium	71°C (160°F)
Well done	77°C (170°F)
Pork (for example, ham, pork loin, ribs) (pieces and whole cuts)	71°C (160°F)
<i>Ground meat and meat mixtures (includes chopped, ground, flaked or minced beef, pork, or fish for example, burgers, sausages, meatballs, meatloaf, casseroles and mechanically tenderized beef)</i>	
Mechanically tenderized beef (Turn steak over at least twice during cooking)	63°C (145°F)
Ground Beef, veal, lamb and pork	71°C (160°F)
Ground Poultry (for example, chicken, turkey)	74°C (165°F)
<i>Poultry (for example, chicken, turkey, duck)</i>	
Pieces	74°C (165°F)
Whole	82°C (180°F)



<i>Egg (note: Customers requesting a runny yolk egg must recognize that pathogens are not destroyed until yolk has completely coagulated )</i>	
Egg dishes	74°C (165°F)
<i>Seafood (note: Customers consuming raw marinated fish and raw molluscan shell fish must be notified that it represents a health hazard. Cooking is recommended to assure safety )</i>	
Fish	70°C (158°F)
Shellfish (for example, shrimp, lobster, crab, scallops, clams, mussels and oysters) ( <i>Since it is difficult to use a food thermometer to check the temperature of shellfish, discard any that do not open when cooked</i> )	74°C (165°F)
<i>Others</i>	
Others (for example, hot dogs, stuffing, leftovers)	74°C (165°F)
<b>Game Meat</b>	
<i>Chops, steaks and roasts (deer, elk, moose, caribou/reindeer, antelope and pronghorn)</i>	
Well done	74°C (165°F)
<i>Ground meat</i>	
Ground meat and meat mixtures	74°C (165°F)
Ground venison and sausage	74°C (165°F)
<i>Large game</i>	
Bear, bison, musk-ox, walrus, etc.	74°C (165°F)
<i>Small game</i>	
Rabbit, muskrat, beaver, etc.	74°C (165°F)
<i>Game birds/waterfowl (for example, wild turkey, duck, goose, partridge and pheasant)</i>	
Whole	82°C (180°F)
Breasts and roasts	74°C (165°F)
Thighs, wings	74°C (165°F)
Stuffing (cooked alone or in bird)	74°C (165°F)
<b>Reheating</b>	74°C (165°F)
<b>Holding Hot Foods</b>	60°C (140°F)
<b>Cooling</b>	60°C (140°F) to 20°C (68°F) within 2 hours, and 20°C (68°F) to 4°C (40°F) within 4 hours

