

GUIDELINE FOR THE DESIGN, CONSTRUCTION AND RECONSTRUCTION OF A FOOD PROCESSING ESTABLISHMENT

This guideline provides general information to anyone proposing to construct a new food processing establishment, extensively remodel an existing food processing establishment or convert an existing building into a food processing establishment.

Registration and Permitting Requirements

- 1) All proposals for new construction, renovations to an existing food processing establishment, or conversion of existing building to be used for a food processing establishment must be reviewed for compliance by a Health Officer prior to the construction, renovation or reconstruction.
- 2) Any person(s) constructing, renovating or reconstructing a food processing establishment must first register the proposed food processing establishment with Manitoba Agriculture, Food and Rural Initiatives on the approved form.
- 3) All plans and specification and other information pertinent to review and approve the application, must be submitted with the registration.
- 4) All food processing establishments require a Food Handling Establishment Permit prior to operating.

This is a guideline only. Additional items may be required by the Health Officer pursuant to the Food and Food Handling Establishments Regulation – MR 339/88R (*The Public Health Act*).

DEFINITIONS:

“food processing establishment”: is a commercial establishment in which food is manufactured, processed or packaged for human consumption.

“extensively remodel”: applies to any renovations to an existing operating food processing establishment that will change the structural and equipment layout and/or will involve demolition work to walls, ceilings and floors anywhere on the premises.

Procedure for Obtaining Approval and Permit to Operate a Food Processing Establishment

- Prior to commencing construction/renovation or conversion, the owner/operator must submit a completed registration form (attached) to the local Health Officer for review.
- The registration form must be accompanied with a clear and complete detailed drawing/plan, preferably to scale, with the information listed below, as well as any other information that may be pertinent to the review of the proposal:
 - layout plan showing food preparation, processing, storage, service areas, number and type of plumbing fixtures and washrooms
 - a listing of all equipment and where it is to be located
 - comprehensive list of food processed, packaged, handled or distributed.
- The registration form must be accompanied by a site plan which includes the boundaries delineating the area under inspection control, the location of all buildings on the premise, access roadways, fences and ancillary structures and separation distance from other industrial, commercial, municipal and residential structures.
- The registration form must also include a schedule indicating the projected dates for commencement and completion of: construction and/or reconstruction of the structure; interior finishing and equipment installation the expected opening date.
- The plans will be reviewed by the Health Officer to ensure regulatory requirements can be met.
- Upon completion of the review the Health Officer will notify the owner/operator of any non-compliance issues or concerns with the proposal, or advise that construction of the food processing establishment can proceed as proposed.

Note: If there is to be a change in construction plans from what was originally submitted, before or during construction or renovation, it is the owner/operator’s responsibility to contact the Health Officer prior to making the changes, and provide a new design plan for review showing the proposed changes.
- It is the responsibility of the owner/operator to keep the Health Officer informed of when the food processing establishment is expected to be ready for inspection and give at least 5 working days notice for a permitting inspection.
- A permit will only be issued after an inspection has been carried out and all construction is complete and regulatory requirements are met.

Note: For construction, renovation or conversion of food processing establishments within the City of Winnipeg, all plans and specifications must also be submitted to the City’s One Stop Plan Approval located at Unit 31 – 30 Fort Street.

CONSTRUCTION REQUIREMENTS

1. STRUCTURE

(i) BUILDING

- The building must be of sound construction and of an adequate size to accommodate the equipment, food and food related products and the various activities involved with operating a food processing establishment.
- All exterior doors and windows must be tight fitting (preferably self-closing) and capable of restricting the entrance of insects and rodents.
- If the food processing establishment will utilize below grade occupancy for any food preparation or processing activities or food storage, there may be additional requirements by the Health Officer. Contact your Health Officer for further information.

(ii) FLOORS

- Floors and floor coverings of all food preparation areas, food storage areas, equipment and utensil washing areas and walk-in-refrigeration units shall be constructed of smooth, impervious and durable material which is either seamless or with seams that are heat-sealed or chemically bonded.
- Floor coverings in food preparation areas, equipment and utensil washing areas must be coved and sealed at all floor and wall junctions.
- All floors in washrooms must be made of impervious durable materials and wall and floor junctions coved and sealed.

Examples of Approved Floor Coverings

	Vinyl Tiles	Quarry Tiles	Sealed Concrete	Poured Seamless	Commercial Sheet Vinyl (seamless)
Food processing area		X	X	X	X
Dishwashing		X		X	X
Dry storage	X	X	X	X	X
Washrooms		X		X	X
Walk-in refrigerator		X	X	X	X

Example of Proper Coving



(iii) WALLS, PARTITIONS and CEILINGS

- All walls and partitions in food preparation areas, equipment and utensil washing areas and walk-in refrigeration units must be of a smooth non-absorbent finish and easily cleanable.
- Studs, joists and rafters in food preparation areas, equipment and utensil washing areas and walk-in refrigeration units must be covered and not exposed.
- Ceilings in all food preparation, equipment and utensil washing areas must be of a smooth non-absorbent finish and easy to clean. Where a T-bar ceiling is use, with approval, the inserts must be non-perforated and plastic coated or have another finish that is non-absorbent and washable.

Examples of Approved Wall Surfaces

	Glazed Surface	Concrete Filled Epoxy Paint	Drywall with Epoxy Paint	Plastic/fiberglass Wall Panels	Stainless Steel or Aluminum
Processing area			X	X	X
Food prep area	X	X	X	X	X
Dishwashing	X	X		X	X
Dry storage	X	X	X	X	X
Washrooms	X	X	X	X	X
Walk-in refrigerator	X			X	X

2. EQUIPMENT DESIGN AND INSTALLATION

- All equipment must be of commercial grade quality and preferably certified (listed) by NSF International (NSF).
- Equipment not NSF certified may be subject to approval by a Health Officer prior to use, to ensure it is suitable for the purpose intended.
- It is recommended that heavy and/or large food equipment that is not readily moveable be mounted on wheels wherever possible.
- Equipment that is not mounted on wheels and not readily moveable, must be sealed to the floor or mounted on legs providing a minimum height of 15 cm (6 inches) from the floor and located such that access can be gained to all sides of the equipment for cleaning purposes.
- All table or countertop mounted equipment that is not readily moveable and is not sealed directly to the table or countertop, must be set on legs allowing a minimum of 10 cm (4 inches) of space between the piece of equipment and the table or countertop.

3. SINKS

Hand-wash Basins

- A minimum of one separate hand-wash basin with hot and cold water is required to be conveniently located in the food preparation area, and depending on the size of the food processing area additional hand-wash basins may be required. Exception - existing processing facilities in which *non-potentially hazardous foods* are processed, for example seed cleaning plants, hand-washing station can be located in non-food preparation areas.

- A hand-wash basin in a washroom in an existing food processing facility cannot be considered as a designated hand-wash basin, unless recommended by Health Officer and approved by the Manager – Inspection and Audit Service.
- The hand-wash basin must be equipped with a mixing valve or combination faucet.
- A liquid soap dispenser and a single use towel dispenser are provided at the hand-wash basin.

Dishwashing

- A stainless steel three-compartment sink of sufficient size to adequately clean and sanitize each utensil (tableware, pots, pans, etc) is required, unless otherwise approved by a Health Officer.
- The dishwashing area must be designed such that there is sufficient space for: processing dirty and clean utensils; maintaining an adequate separation distance to prevent them from coming in contact with each other and ensuring the flow is from soiled dishes to clean dishes.
- Dish tables and/or drain boards or racks are required and must be: non-corrodible; self-draining; and of sufficient size and numbers for the processing of soiled and clean utensils as well as air-drying of clean utensils.
- Where a mechanical dishwasher is to be used, it must be of commercial grade and NSF International certified (or equivalent) and approved by a Health Officer.
- Properly sized grease traps or interceptors, servicing utensil washing sinks, must meet the Manitoba Plumbing Code and located such that they are accessible for easy cleaning and maintenance.

Janitorial Sink

- A separate janitorial style sink is recommended for filling cleaning pails and disposing of cleaning wastes to prevent contamination of food and dishwashing areas.

4. STORAGE SPACE

- Adequate storage space is required and must be provided to ensure that food products are protected from contamination at all times.
- Sufficient refrigerator and freezer space must be provided such that potentially hazardous foods required to meet demands at peak times, are able to be rapidly cooled and properly stored.
- Placement of refrigeration equipment should be carefully considered to ensure that refrigeration space is available and conveniently located near food preparation areas and not affected by extreme heat sources such as ovens, grills and deep fryers.
- Storage space must be provided to allow for the storage and separation of items that are distinct from each other such as food products, equipment and cleaning supplies.
- Adequate storage facilities such as lockers or change rooms should be provided for wearing apparel and other personal items of employees.
- It is also recommended that an area be set aside for the storage of unused items.
- Shelves to be used for the storage of food and food containers and equipment that are not easily moveable such as dollies, racks or pallets, must be sealed directly to the floor such that food particles, dust or debris cannot get under the bottom shelf, or have a minimum height of 15 cm (6 inches) between the bottom shelf and the floor.

5. VENTILATION and EXHAUST SYSTEM

- Proper ventilation is required in all food processing establishments and must meet the requirements of the Manitoba Building Code.
- Where grease laden vapors are produced such as from a deep fryer, grill or similar type equipment, a ventilation exhaust system is required and must comply with The Manitoba Building Code and The Manitoba Fire Code and receive approval of the local authority having jurisdiction.

6. LIGHTING

- Bright and direct lighting is required in all food preparation areas and dishwashing areas. A minimum of 215 lux (20 foot candles) is required on all work surfaces in these areas. A minimum of 540 lux (50 foot candles) is recommended. Storage areas and washrooms must be provided with sufficient lighting fixtures to allow for proper cleaning operations. A minimum of 215 lux (20 foot candles) is required at a distance of 76 cm (30 inches) from the floor.
- All lighting in food preparation areas, dishwashing areas, food and food equipment storage areas and food display areas must be shielded to protect them from shattering and protect food and equipment from broken glass.
Note: Shatterproof bulbs or shatterproof fluorescent tubes may be used in place of shields where appropriate.

7. WASHROOM FACILITIES

- Toilet and hand-washing facilities must be provided for staff and must be located in a convenient location. The hand-wash basin noted in Section 3 is exclusive for hand-washing in the food preparation area and is not to be included as part of the washroom facilities, unless recommended by a Health Officer and approved by the Manager – Inspection and Audit Service.
- Toilet facilities, meeting the requirements of the Manitoba Building Code and approved by the local authority having jurisdiction.

8. GARBAGE FACILITIES

- Garbage containers or facilities must be provided inside and outside the establishment.
- The containers or facilities must be durable, easily cleanable, rodent proof and must be provided in sufficient numbers and located at convenient locations both inside and outside.

9. POTABLE WATER SOURCE

- Where a food processing establishment is not serviced by a licensed municipal water supply, the water supply system must comply with Manitoba Regulation 40/2007, Drinking Water Safety Regulation, under *The Drinking Water Safety Act* and meet all requirements for a semi-public water system.

10. SEWAGE DISPOSAL

- The food processing establishment must be hooked up to a municipal sewer system or other wastewater treatment system licensed under *The Environment Act* or serviced by an onsite wastewater system that is of adequate size to receive and treat all wastewater generated at peak operating times.
- The system must also be in compliance with the Onsite Wastewater Management Regulation under *The Environment Act*, rev. April 2008