



September 14, 2012

Dear AMM Member:

Please see the attached "Fire Code Frequently Asked Questions".

This document was compiled by the Office of the Fire Commissioner at the AMM's request to help clarify municipal roles and responsibilities regarding fire inspections.

We hope these Frequently Asked Questions will be of use both to municipal officials and fire inspectors.

The document also contains links to additional resources such as the current version of the fire inspection report form, the Manitoba Fire Code, and additional information for municipal officials and fire inspectors available on the Office of the Fire Commissioner website.

Regards,

A handwritten signature in blue ink that reads "Joe Masi". The signature is written in a cursive, flowing style.

Joe Masi  
Executive Director

David K. Schafer  
Fire Commissioner

# **Fire Code Frequently Asked Questions**

## **Manitoba Fire Code**

### **What are the Manitoba amendments?**

The Manitoba amendments are regulations that are used with the National Codes of Canada, to make up the Manitoba Building Code, Manitoba Fire Code and Manitoba Plumbing code.

We have Manitoba amendments to the National Building Code, Plumbing Code and Fire Code to reflect Manitoba's unique soil and extreme weather conditions.

Manitoba amendments to the Fire Code:

<http://web2.gov.mb.ca/laws/regs/pdf/f080-155.11.pdf>

### **How does the Fire Code apply to existing buildings?**

If a building still has the same use and occupancy that it was originally built for and no renovation of any structure, plumbing, heating or electrical has taken place, and all life safety systems pass the annual inspection, the building would not have to be brought up to present day codes.

The Fire Code is the regulation for the maintenance of the life safety that was built into the building at the time of construction.

The Fire Code states that when changes to the use of a building create a hazard exceeding the criteria for which the fire protection systems were designed, such fire protection systems shall be upgraded to accommodate the increased hazard.

The original construction of the building cannot be altered without repairing the structure's fire separations, or anything else that increases the danger to life safety.

The Fire Inspector's main concern is the life safety of building occupants, so early warning and exiting are a key focus.

## Building Classification

### What are the different classifications of buildings in Manitoba?

Group A1	Assembly Occupancies Theatre
Group A2	All other Assembly occupancies
Group A3	Assembly Occupancies, Arena
Group A4	Assembly Occupancies Outdoor stadium
Group B1	Detention Occupancies
Group B2	Treatment Occupancies
Group B3	Care Occupancies
Group C	Residential Occupancies
Group D	Business and Personal Services Occupancies
Group E	Mercantile Occupancies
Group F1	High Hazard industrial Occupancies
Group F2	Medium Hazard Industrial Occupancies
Group F3	Low Hazard industrial Occupancies

### What if the building doesn't appear to fit under any of these categories?

There is more information about these categories and examples in Division B, Appendix A A-3.1.2.1.(1) of the Manitoba Building Code.

If you are still in doubt, assistance is available from Office of the Fire Commissioner staff.

### What is the difference between a Part 9 and a Part 3 building?

#### Part 3

Part 3 buildings are **any** buildings of:

- A - Assembly Occupancy
- B - Care and Detention Occupancy
- F1 - High Hazard Industrial Occupancy

Buildings **over** 3 stories or over 600<sup>2</sup>M of:

- C - Residential Occupancy
- D - Business or Personal Service Occupancy
- E - Mercantile Occupancy
- F2 - Medium Hazard Industrial Occupancy
- F3 - Low Hazard Industrial Occupancy

## Part 9

Buildings **up to** 3 stories and up to 600<sup>2</sup>M of:

C - Residential Occupancy or Personal Service Occupancy

E - Mercantile Occupancy

F2 - Medium Hazard Industrial Occupancy

F3 - Low Hazard Industrial Occupancy

### Where can I find the definition of words used in the codes?

All words that are defined are written in italics in the code. You can find the definition as the code uses the word, in Defined Terms Division A, 1.4.1.2. of the Building Code, Fire Code, and Plumbing Code.

## Fire Inspections

### Municipal Responsibility

#### Do municipalities have to enforce the Fire Code?

Yes, in accordance with The Municipal Act Section 239 (1)

If this or any other Act or by-law authorizes or requires anything to be inspected, remedied, enforced or done by a municipality, a designated officer of the municipality may, after giving reasonable notice to the owner or occupier of land or the building or other structure to be entered to carry out the inspection, remedy, enforcement or action,

In accordance with The Fires Prevention and Emergency Response Act Section 20 a local authority must enforce the Manitoba Fire Code.

The Office of the Fire Commissioner website contains more help for Municipal Officials and Fire Inspectors:

[http://firecomm.gov.mb.ca/support\\_inspections.html](http://firecomm.gov.mb.ca/support_inspections.html)

#### What resources does an inspector need to do Fire Safety Inspections?

To perform the job adequately a Fire Safety Inspector would need at minimum, **current** copies of the National Fire and Building Codes (with copies of the Manitoba amendments). Additional resources to assist the Fire Safety Inspector would be access to **referenced** NFPA Standards 10, 13, 25, and 96 as well as access to CAN/ULC-S524, CAN/ULC-S536 and CAN/ULC-S537.

## **Where are these resources available?**

The National Codes are available at the National Research Council website:

<http://www.nrc-cnrc.gc.ca/eng/ibp/irc/codes/codes-guides.html>

The NFPA codes are available at the NFPA website:

<http://www.nfpa.org/categoryList.asp?categoryID=124&URL=Codes%20&%20Standards&cookie%5Ftest=1>

The CAN/ULC Standards are available at the ULC Website:

<http://www.ul.com/canada/eng/pages/ulcstandards/>

## **Who can do a fire inspection?**

A Fire Inspection must be done by the Office of the Fire commissioner or a person delegated the authority, authorized in writing by the Fire Commissioner.

The local Fire Chief automatically has the authority to do inspections in their jurisdiction. It is recommended that the person doing inspections has at least Level 1 Fire Inspector training

Local authorities may ask for assistance in writing to the Office of the Fire Commissioner.

## **Which buildings in Manitoba now require a Fire Inspection?**

Manitoba Regulation 73/2007 lists the buildings that must be inspected.

### **Annually;**

- (a) an elderly persons' housing unit or hostel, as defined in The Elderly and Infirm Persons' Housing Act;
- (b) a child care centre licensed under The Community Child Care Standards Act;
- (c) a personal care home as defined in The Health Services Insurance Act;
- (d) a residential care facility as defined in the Manitoba Fire Code, Manitoba Regulation 216/2006; or
- (e) a hospital.

### **Every three years**

- (a) licensed premises as defined in The Liquor Control Act;
- (b) a public or private school, as defined in The Education Administration Act;
- (c) a recreation centre, including without limitation, an arena, curling rink and community club;
- (d) a hotel or motel; or
- (e) a restaurant located in a building that contains one or more dwelling units.

### **Where are the Fire Safety Inspection Report forms available that are required to conduct inspections?**

[http://www.firecomm.gov.mb.ca/support\\_inspections.html](http://www.firecomm.gov.mb.ca/support_inspections.html)

### **What happens when the owner does not comply with a Fire Inspection Order?**

If an owner does not comply with a Fire Inspection Order, depending on the severity of the violation, the owner (individual or corporation) may be given more time to comply. The Office of the Fire Commissioner wants to ensure the safety of building occupants while helping owners improve their buildings.

Failure to comply can result in a fine, or a Fire Inspector may issue an order to close the building.

### **What training do I need to be a Fire inspector?**

The Manitoba Emergency Services College offers a course in Fire Inspection. There are two levels available. They are both on-line distance learning assignments with an exam at the end. This course is accredited to meet the NFPA 1031 standard.

The Office of the Fire Commissioner requires anyone doing Fire Inspections to have a least Level 1 Fire Inspector before they will be designated to do Fire Inspections in the Province of Manitoba.

## **What is the role of the Fire Inspector?**

A fire inspector reviews a buildings inside and out to determine sufficiency of fire and life safety systems. We want to make sure that people can safely exit a building under emergency conditions.

The Fire Inspector writes orders to remedy any life safety issues in the building, enforcing the Manitoba Fire Code

## **Who can accompany a Fire Inspector as part of the inspection process?**

According to the Fire Protection and Emergency Response Act. 9(2), the Fire Inspector can take with him or her any other person and equipment or materials to assist in the inspection (Building Inspector, Hydro Inspector, Gas Inspector, OFC, another Fire Inspector, Health Inspector, etc.)

The building owner or a legitimate agent acting for the owner should always accompany the Inspector

## **In Commercial properties including multi-suite apartment complexes, is the heating unit and chimney (if applicable) required to be inspected annually?**

Yes, except in a one and two-family dwelling, every fuel-fired heating system must be inspected annually by a qualified person

## **Daycares**

### **What do I need to look for in daycares?**

Daycares require an annual inspection at the same level of inspection as any other building. Special attention should also be paid to combustible materials and artwork on the walls. 20% of the area of the walls shall not be exceeded.

Fire Drills should be held monthly.

CO detection is required as per Reg. 155/2011.

## **Fire Inspection Life Safety issues**

### **When are exit signs required in a building?**

#### ***MBC 3.4.5.1.***

- Signs are required over or adjacent to an exit if it serves a building more than 2 stories in height.
- A building having a design occupant load of more than 150
- A room or floor area that has a fire escape as part of a required means of egress

### **Where are emergency lights required in a building?**

#### ***MBC 3.2.7.3.***

Emergency lights are required in:

- Exits
- Principal routes providing access to exits
- Corridors used by the public
- Corridors serving sleeping rooms in a care or treatment occupancy
- Corridors serving classrooms
- Underground walkways
- Public corridors
- Public floor areas of A1 occupancies or A2 or 3 occupancies with an occupant load of 60 or more
- Daycare centers
- Food preparation areas of commercial kitchens

### **Where do exit doors require quick release (panic) hardware?**

#### ***MBC 3.4.6.16.***

- Every exit door from an A occupancy with an occupant load of more than 100
- Every door leading to an exit lobby from an exit stair shaft, and every exterior door leading from an exit stair shaft if the building has an occupant load of more than 100
- Every exit door for a floor area containing an F1 occupancy

### **Can exit doors have conventional door knobs on them, or do they have to be lever action?**

#### ***MBC 3.4.6.16.***

- All principal entrance doors and every exit door that is not listed above may have some other latching mechanism.

### **When does a building need a fire alarm system?**

#### ***MBC 3.2.4.1.***

- If the building is sprinklered
- If the building contains a contained use area (jail cell)
- Has an impeded egress zone (locked ward)
- More than three stories including below ground stories
- Has an occupant load of more than 150 above or below the first storey
- A school, college, or child care facility with an occupant load of more than 40



- Beverage room or licensed restaurant with an occupant load of more than 150
- F2 or F3 occupancy with an occupant load of more than 75 above or below the first storey
- C occupancy with sleeping accommodation for more than 10 person (2 people per sleeping room)
- F1 occupancy with an occupant load of more than 25
- An occupant load of more than 300 below an open seating area
- If a building contains more than 4 dwelling units
- A farm building of more than 600<sup>2</sup>m

**What is the difference between a fire wall and a fire separation?**

***MBC 3.1.10.***

- A fire wall is either a 2 hr or 4 hr wall that can be used to divide a building into two or more separate buildings by definition of the code.
- A fire separation may or may not have a rating, can be vertical or horizontal, must not have any penetrations the code allows sealed with fire stopping
- Openings (doors, etc.) in a fire separation must be sealed with a closure that has a Fire Protection Rating.

**What is a Flame Spread Rating and what does it apply to?**

***MBC 3.1.13.***

- A flame spread rating is a rating given to interior surface finishes.
- The rating should be low so that flame does not quickly travel across burning surfaces.
- Also, there should be as little smoke obscuration (density) as possible produced by burning walls, floors, and ceiling finishes, so people can see their way out of a building.

## **Fire Separations**

**What are Fire Separations and why are they important?**

These are two types of separations:

1. Vertical separations (walls etc)
2. Horizontal separations (floors or ceilings)

These separations are built into the building at the time of construction to separate the building into Fire Compartments. The spread of fire must be contained in a building between compartments under fire conditions. Any renovations to the building including plumbing and electrical that breach these fire separations must be repaired with fire stopping. (Please see the additional information on Fire Separations in the **Fire Separations of Service Rooms** handout.)

**In existing buildings, can the owner be required to repair holes or other kinds of breaches in separations of service rooms?**

Yes, the following is a guide to the requirements and repair of service rooms.

## Fire Separations of Service Rooms

**Definition-** Service Rooms include boiler rooms, furnace rooms, incinerator rooms, garbage handling rooms, and rooms to accommodate air-conditioning or heating appliances, pumps, compressors, and electrical equipment. Rooms such as elevator machine rooms and common laundry rooms are not considered to be service rooms according to the National Building Code.

Electrical Vaults have separate requirements under the code than service rooms.

Most service rooms, with the exception of incinerator rooms, (2hour), require a **1h (hour)** fire separation.

### Closures

Any doors/dampers or other closures require a fire protection rating of **45min in a 1h (hour)** separation. (20 min door cannot be used in this application).

The door is a fire door and will be labelled as such. A swing type door must have a positive latching mechanism designed to hold the door in a closed position after each use. This door must never be propped open, or have a device attached to it to enable it to be propped open. No alterations can be made to the door, its frame, or hardware. This door must also have a self closing device.

### Penetrations

Shafts or ducts leaving the service room must have a damper unless they were not required to have one when professionally designed. Fire dampers must have annual inspections.

Where fire separations are damaged so as to affect their integrity, they shall be repaired so that the integrity of the fire separations is maintained.

Penetrations of a fire separation, or a membrane forming part of an assembly required to have a fire resistance rating, shall be:

**Sealed by a fire stopping that has an F rating not less than the fire protection rating required for closures.**

**For a 1h (hour) fire separation a 45 minute F rating is required.**

If the penetration of the fire separation is into a horizontal service space, the penetration will be sealed with a stopping that has an FT rating not less than required for the fire separation

**For a 1h (hour) fire separation a 1h FT rating is required.**

Sprinkler piping is allowed to penetrate fire separations provided the penetration is covered by a metal escutcheon plate.

Combustible sprinkler piping is permitted to penetrate a fire separation provided the fire compartments on each side of the fire separation are sprinklered. Piping penetrations must be fire stopped.

Combustible drain, waste and vent pipe, is permitted to penetrate a fire separation or a membrane that forms part of a fire separation, provided the piping is sealed at the penetration by stopping with an **F** rating not less than the **required fire resistance rating**. This piping cannot be located in a vertical service space.

Sheet metal ducts are permitted to penetrate a ceiling membrane forming part of a fire separation as long as they are protected with fire stop flaps.

### **F-rating, Flame Ratings**

The F-rating is expressed in hours and the number indicates the specific length of time that a barrier can withstand fire before being consumed or before permitting the passage of flame through the opening.

An F-rated opening shall also withstand a hose stream test.

### **T-rating, Thermal Ratings**

The T-rating is expressed in hours and the number indicates the length of time that the temperature on the non-fire side of the penetration does not exceed  $325^{\circ}F$  ( $163^{\circ}C$ ) above the ambient temperature. This ensures that the temperature on the side of the wall away from the flame does not reach the flash point of any materials on that side of the wall.

### 3.6.2.1. Fire Separations around Service Rooms

- 1) Except as permitted by Sentences (2), (8), (9) and (10), fuel-fired *appliances* shall be installed in *service rooms* separated from the remainder of the building by *fire separations* having a *fire-resistance rating* not less than **1 h**.
- 2) Except as required by Sentence (3), a fuel-fired *appliance* that serves only one room or *suite* is not required to be installed in a *service room* separated from the remainder of the *building*.
- 3) A solid-fuel-burning *appliance* shall not be located in a *repair garage*, a *storage garage*, or any other location where it could be exposed to flammable vapours or gases, unless
  - a) it is enclosed in a *service room* that is separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than 1 h,
  - b) it is supplied with combustion air directly from outside the *building*, and
  - c) the heat that it generates is supplied indirectly to the space served by means of ducts or piping.
- 4) A *service room* containing an incinerator shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than **2h**.
- 5) Equipment that uses a liquid having a *flash point* below 93.3 °C shall be installed in a *service room* separated from the remainder of the *building* by a *fire separating* having a *fire-resistance rating* not less than **1 h**.
- 6) Electrical equipment that is required to be located in a *service room* according to CSA C22.1, "Canadian Electrical Code, Part I," shall be installed in a *service room* separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than **1h**.
- 7) Except as permitted by Sentence (8), in a *storey* that is not sprinklered throughout, a *service room* that contains service equipment other than that addressed by Sentences (1) to (6) shall be separated from the remainder of the *building* by a *fire separation* having a *fire-resistance rating* not less than **1h**.
- 8) Where a *service room* contains a limited quantity of service equipment, and the service equipment neither constitutes a fire hazard nor is essential to the operation of fire safety systems in the *building*, the requirements for a *fire separation* shall not apply.
- 9) A *fire separation* is not required between a fireplace and the space it serves.
- 10) A *fire separation* is not required between a roof-top *appliance* and the *building* it serves.

## **Some other Fire Prevention tips for your building . . .**

- Keep the accesses clear for the Fire Department year round
- Do not allow combustible materials to accumulate inside or outside your building
- Be sure that all EXIT doors open and operate freely
- Be sure that doors to service rooms are kept closed at all times
- Be sure that service rooms are not used for storage
- Be sure that exhaust ventilators are kept free of grease and/or lint
- Be sure that smoking/no smoking signs are displayed in appropriate places
- Be sure that smoking materials are properly disposed of and not thrown into general garbage
- Be sure that hazardous goods are properly stored in identified and approved containers
- Be sure that fire extinguishers are always accessible and ready to go
- Be sure that if your building has a standpipe system in it, the fire hose is inspected regularly
- Be sure that fire doors ARE NOT blocked or wedged open
- Be sure that fire drills are held regularly if required for your building
- Be sure that electrical problems are repaired by QUALIFIED electricians only
- Be sure that general housekeeping efforts are maintained
- Be sure that hazards are identified and corrected as they are noticed
- Invite your local fire department in for a routine visit to your building
- Fire Emergency Plans as required shall be posted and reviewed as required