

**Quebec Safety Code, Chapter VIII – Building, and  
National Fire Code of Canada 2010 (amended) (QSC)**

**Replacement Pages  
Revisions 2016**

Selected replacement pages have been produced for the QSC.

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# FOREWORD

The Régie du bâtiment du Québec and the National Research Council of Canada present this document, prepared to facilitate the application of the Safety Code adopted under the Building Act (Order in Council 1263-2012, 19 December 2012, 2013, G.O. 2. 179 and changes concerning the maintenance of water cooling tower facilities, Order in Council 232-2013, 20 March 2013, 2013, G.O. 2. 744, Order in Council 454-2014, 21 May 2014, 2014, G.O. 2 1139, change concerning the introduction of NBC 2010 amended Quebec, Order in Council 348-2015, 15 April 2015, G.O. 2. 738 and concerning sprinklers installation in private senior's residences and Order in Council 1015-2015, 18 November 2015, G.O. 2 3189). Entitled *Quebec Safety Code, Chapter VIII – Building, and National Fire Code of Canada 2010 (amended)*, the document has two Divisions.

Division I contains Chapter VIII, Building, except for the amendments to the National Fire Code of Canada 2010 (NFC) adopted by Quebec and mentioned in article 370 of Chapter VIII, Building. These amendments can be found rather in Division II: they have been incorporated into the NFC 2010. The reader should note that the Quebec amendments are indicated with heavy vertical lines in the margin. Reproduction of Chapter VIII, Building, including the Quebec amendments, is authorized by Les Publications du Québec.

The *Quebec Safety Code, Chapter VIII – Building, and National Fire Code of Canada 2010 (amended)* also contains a series of amendments made under the *Act respecting the Compilation of Québec Laws and Regulations*. Quebec amendments are indicated with heavy vertical lines in the margin.

The edition of the NFC reproduced in Division II contains the first and second series of errata and revisions approved by the Canadian Commission on Building and Fire Codes respectively in December 2012 and October 2013. Code pages containing revisions and/or errata are identified with the words “Amended Page” in the footer.

The public are invited to submit their questions and comments concerning the amendments to the NFC adopted by Quebec to the following address:

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# **DIVISION I**



# SAFETY CODE

## Building Act

### Building Act

(chapter B-1.1, ss. 10, 175, 176, 176.1, 178, 179 and 185, subpars. 0.1, 0.2, 5, 20, 33, 37 and 38, and s. 192)

1. The Safety Code (chapter B-1.1, r. 3) is amended by adding the following after Chapter VII:

## CHAPTER VIII

### BUILDINGS

#### DIVISION I

#### INTERPRETATION

337. In this Chapter, unless the context indicates otherwise,

(1) the following words and expressions have the meaning given:

**building height** means the height of the building as defined by the standard in force at the time of construction or *alteration* of the building; (*hauteur de bâtiment*)

**façade** means the sheathing of the exterior walls of a building and all the accessories, electrical or mechanical devices and other permanent or temporary objects connected with exterior walls, such as chimneys, antenna, masts, balconies, canopies or cornices; (*façade*)

**private seniors' residence** means a private seniors' residence as defined in the Act respecting health services and social services (chapter S-4.2); (*résidence privée pour aînés*)

**residential board and care occupancy** means a *care occupancy* other than a hospital, a residential and long-term care centre, an infirmary, a rehabilitation centre or a rest home, providing lodging in rooms for persons requiring personal support services and who may need assistance to evacuate the building (see Appendix to NBC 2005 am. Québec), and that was constructed or altered prior to 13 June 2015; (*résidence supervisée*)

**residential occupancy for the elderly** means a private seniors' residence in which elderly persons are lodged in bedrooms or dwelling units, but that is not a residential board and care occupancy, and that was constructed or altered prior to 13 June 2015; (*habitation destinée à des personnes âgées*)

**single-family type residential occupancy for the elderly** means a single-family dwelling having a building height of no more than 2 storeys, in which a natural person who resides in that dwelling operates a private seniors' residence and lodges no more than 9 elderly persons, and that was constructed or altered prior to 13 June 2015; (*habitation destinée à des personnes âgées de type unifamilial*)

**water cooling tower facility** means the water circulation system of one or more interconnected water cooling towers, including components such as pumps, tanks and compressors; (*installation de tour de refroidissement à l'eau*)

(2) the words and expressions "floor area", "fire resistance rating", "smoke detector", "closure", "mercantile occupancy", "business and personal services occupancy", "industrial occupancy", "assembly occupancy", "residential occupancy", "flame-spread rating", "dwelling unit", "means of egress", "fire separation", and "alteration" have the meaning given to them by the National Building Code as adopted by Chapter 1 of the Construction Code (O.C. 953-2000 as amended), hereinafter referred to as the National Building Code.

(3) the words and expressions "care occupancy", "treatment occupancy", "detention occupancy" and "suite" have the meaning given to them by the standard applicable at the time of the construction or alteration of the building as provided for in section 344.

## **DIVISION II**

### **APPLICATION**

**338.** Subject to the exemptions provided for in section 29 of the Building Act (chapter B-1.1) and in sections 340 to 342 of this Regulation, this Chapter applies to every building and every facility intended for use by the public, and to the vicinity of such a building or facility.

**339.** For the purposes of this Chapter, the following facilities are deemed to be facilities intended for use by the public in accordance with section 10 of the Act:



- (1) bleachers, grandstands or exterior terraces whose highest point above the ground exceeds 1.2 m and whose load capacity exceeds 60 persons;
- (2) tents or outdoor air-supported structures referred to in Chapter I of the Building Code and used
  - (a) as *residential occupancies* or *health care or detention occupancy* whose floor area is 100 m<sup>2</sup> or more; or
  - (b) as *assembly occupancies* or *mercantile occupancies* whose floor area exceeds 150 m<sup>2</sup> or whose load capacity exceeds 60 persons;
- (3) belvederes built with materials other than backfill and constituted of horizontal platforms linked by their construction elements whose total area exceeds 100 m<sup>2</sup> or whose load capacity exceeds 60 persons including means of access.

**340.** Any building, other than a private seniors' residence, for which the sole occupancy is one of the occupancies in the National Building Code listed below is exempted from the application of this Chapter:

- (1) an assembly occupancy not covered by paragraph 6 that accommodates no more than 9 persons;
- (2) a *health care or detention occupancy* that constitutes
  - (a) a prison;
  - (b) a supervised education centre with or without detention facilities used to shelter or accommodate no more than 9 persons; or
  - (c) a convalescence home, a *care occupancy* or assistance occupancy or a rehabilitation centre used to shelter or accommodate no more than 9 persons;
- (3) a residential occupancy that constitutes
  - (a) a rooming house or an outfitter offering no lodgings when the building has no more than 9 rooms;
  - (b) a single-family dwelling used by a natural person who lives there to operate a bed and breakfast service in which no more than 5 bedrooms are available;

- (c) a single-family dwelling used by a natural person who lives there to operate a school accommodating no more than 15 students at any one time;
- (d) a monastery, a convent or novices' quarters owned by a religious corporation incorporated under a special Act of Québec or the Religious Corporations Act (chapter C-71), where that building or part of the building divided by a *firewall* is occupied by no more than 30 persons and where the building height does not exceed 3 storeys;
- (e) a shelter used to shelter or accommodate no more than 9 persons;
- (f) a building used as a *dwelling unit* that
  - i. has a building height of no more than 2 storeys; or
  - ii. has no more than 8 dwelling units;
- (4) a *business and personal services occupancy* having a building height of no more than 2 storeys;
- (5) a *mercantile occupancy* having a total floor area of no more than 300 m<sup>2</sup>;
- (6) a childcare centre used to shelter or accommodate no more than 9 persons;
- (7) a subway station;
- (8) an agricultural building;
- (9) an *industrial occupancy*;
- (10) a building left vacant for the purposes of construction, demolition or renovation work.

Despite the exemption provided for in the first paragraph and in section 341, the requirements respecting a water cooling tower facility provided for in Division VII apply to every cooling tower facility.

**341.** Buildings for which the occupancy, in addition to one or more of the occupancies exempted under paragraphs 1, 3, 4, 5 and 6 of section 340, is one of the following occupancies, are also exempted from the application of this Chapter:

- (1) a building used as a *dwelling unit* that has a building height of no more than 2 storeys or contains no more than 8 *dwelling units*;
- (2) a mercantile occupancy having a total floor area of no more than 300 m<sup>2</sup>;
- (3) a business and personal services occupancy having a building height of no more than 2 storeys.

**342.** Any establishment or construction site referred to in the Act respecting occupational health and safety (chapter S-2.1) is exempted from the application of Part 3, Indoor and Outdoor Storage, Part 4, Flammable and Combustible Liquids and Part 5, Hazardous Processes and Operations, of Division B of the National Fire Code referred to in section 370.

**343.** Unless otherwise provided for, a reference in this Chapter to a standard or code is a reference to the standard or code as adopted by the Chapter of the Construction Code or the Security Code that refers to it.

In addition, when the other chapters of the Safety Code include more stringent or different provisions applicable to the situations covered by this Chapter, the provisions of those specific chapters prevail.

### **DIVISION III**

#### **GENERAL**

##### *§1 Standards applicable to all buildings, by year of construction*

**344.** Subject to the more stringent standards provided for in Division IV, a building must conform to the standards applicable at the time of construction which, under the system of objective-based codes, target the objectives of safety, health or the protection of buildings against fire and structural damage.

Depending on the year of construction or *alteration* of the building, the applicable standard is the standard indicated in the following table:

| <b>Year of construction or alteration</b>                | <b>Standard applicable</b>   |
|--|--|
| Building constructed or altered prior to 1 December 1976 | The Regulation respecting safety in public buildings, except s.1, pars. 7.1, 7.2, 8.1 and 9.1, s. 6, par. 1, 2nd par. and pars. 1.1, 2, 3, 4, 4.1, 4.2, 4.3, ss. 7, 8.1, 11.1, 16.1 and 17, par. 4.1, s. 18, pars. 2, 3 and 5.1, s. 32.1, pars. 1b and 4, and ss. 33, 36, 44, 45, 51 and 53 (chapter S-3, r. 4) <sup>α</sup> |

|  |   |
|--|---|
| Building constructed or altered between 1 December 1976 and 24 May 1984      | Building Code (chapter S-3, r.2)  |
| Building constructed or altered between 25 May 1984 and 17 July 1986         | <b>National Building Code 1980 "NBC 1980"</b> , English Edition No. 17303, published by the National Research Council of Canada, including January 1983 revisions and errata and January 1984 revisions, hereinafter referred to as NBC 1980 am. Québec. (O.C. 912-84, 84-04-11).   |
| Building constructed or altered between 18 July 1986 and 10 November 1993    | <b>National Building Code of Canada 1985 "NBC 1985"</b> , NRCC English Edition No. 23174, including the errata of October 1985 and January 1986, the amendments of January 1986, except the amendment relating to Sentence 9 of Article 3.1.4.5., the amendments of July and November 1986, January 1987, January and December 1988 and also January 1989, published by the National Research Council of Canada, hereinafter referred to as NBC 1985 am. Québec (O.C. 2448-85, 85-11-27)  |
| Building constructed or altered between 11 November 1993 and 6 November 2000 | <b>National Building Code of Canada 1990 "NBC 1990"</b> , English edition No. 30620, published by the National Research Council of Canada, including the amendments of January and July 1991 and the amendments of January and September 1992, hereinafter referred to as NBC 1990 am. Québec (O.C. 1440-93, 93-10-13)  |
| Building constructed or altered between 7 November 2000 and 16 May 2008      | <b>Construction Code of Québec, Chapter I, Building, and National Building Code of Canada 1995 (amended)</b> , National Building Code - Canada 1995 (NRCC 38726E) including the revisions of July 1998 and November 1999 and the Code national du bâtiment - Canada 1995 (CNRC 38726F) including the revisions of July 1998 and November 1999, published by the Canadian Commission on Building and Fire Codes of the National Research Council of Canada, hereinafter referred to as NBC 1995 am. Québec (O.C. 953-2000, 2000-07-26) |
| Building constructed or altered between 17 May 2008 and 13 June 2015         | <b>Construction Code of Québec, Chapter I, Building, and National Building Code of Canada 2005 (amended)</b> , National Building Code of Canada 2005 (NRCC 47666) and Code national du bâtiment-Canada 2005 (CNRC 47666F), published by the Canadian Commission on Building and Fire Codes of the National Research Council of Canada,  |

|  |   |
|--|---|
|  | hereinafter referred to as NBC 2005 am. Québec (O.C. 293-2008, 2008-03-19)  |
| Building constructed or altered after 13 June 2015 | <b>Construction Code of Québec, Chapter I, Building, and National Building Code of Canada 2010 (amended),</b> National Building Code of Canada 2010 (NRCC 53301) and Code national du bâtiment - Canada 2010 (CNRC 53301F), published on 29 November 2010 by the Canadian Commission on Building and Fire Codes of the National Research Council of Canada, hereinafter referred to as NBC 2010 am. Québec (O.C. 347-2015, 2015-04-15). |

However, the standards apply taking into account the fact that

- (1) a previous standard may be applied for a period of 18 months following the date of coming into force of a new standard;
- (2) a requirement of the code in force at the time of construction may be subject to an equivalent or different measure as provided for in sections 127 and 128 of the Act;
- (3) prior to 7 November 2000, since the notion of residential board and care occupancy did not exist, the construction of a building housing the clients of a residential board and care occupancy was subject to the requirements applicable to a hospital (care occupancy) as set out in the code in force at the time of construction; a care occupancy meeting the definition of a residential board and care occupancy may conform with the requirements of NBC 2005 am. Québec subject to the more stringent provisions of Division IV.
- (4) more than 10 persons may sleep in a residential board and care occupancy, a convalescent home or a children's custodial home referred to in Sentences 3 and 4 of Article 3.1.2.5 of NBC 2005 am. Québec, as long as no more than 9 persons are lodged there;
- (5) a private seniors' residence constructed or altered prior to 13 June 2015 may be a residential occupancy for the elderly, a single-family type residential occupancy for the elderly or a residential board and care occupancy providing lodging for the elderly; and
- (6) a private seniors' residence constructed or altered after 13 June 2015 is a care occupancy (Group B, Division 3).

**345.** A building or facility intended for use by the public must be maintained in a safe and proper working condition.

## **DIVISION IV**

### **MORE STRINGENT PROVISIONS APPLICABLE TO CERTAIN BUILDINGS**

*§1 More stringent standards applicable to a building housing a residential occupancy or a care and treatment occupancy*

I. Fire alarm and detection system

**346.** In buildings constructed or altered prior to 7 November 2000, the fire alarm and detection system must conform to the requirements of NBC 1995 am. Québec, except those of Sentence 3.2.4.19.(5).

346.1. Despite section 346, a private seniors' residence must be equipped with a fire alarm and detection system, except

- (1) a single-family type residential occupancy for the elderly;
- (2) a residential board and care occupancy that lodges no more than 9 persons and whose building consists of a dwelling unit having a building height of no more than 2 storeys.

**347.** In a residential occupancy for the elderly and a residential board and care occupancy designed in compliance with Sentence 3.1.2.5. of NBC 1995 am. Québec or 2005 am. Québec, a single-signal fire alarm and detection system must be connected to a fire department; the connection must be designed to ensure that, when the fire alarm is triggered, the fire department is alerted, in accordance with NBC 1995 am. Québec.

**348.** In a residential board and care occupancy designed in compliance with Sentence 3.1.2.5. of NBC 1995 am. Québec or 2005 am. Québec, the fire alarm and detection system may be a single-signal or dual-signal system.

**349.** In a residential occupancy for the elderly equipped with a fire alarm system, smoke detectors must be installed in each bedroom that is not part of a *dwelling unit*.

**350.** In a residential occupancy for the elderly, when a sound signal device must be added to a bedroom or dwelling unit, it must include a visual signal device having a power level of at least 110 cd.

**351.** In a dwelling unit and in a hotel or motel suite comprising several rooms, the acoustic pressure level of a fire alarm signal must be at least 85 dBA near the entry door, once the door is closed.

In the bedrooms of a residential occupancy, other than in the bedrooms of a dwelling unit, the standard is 75 dBA.

**352.** The provisions of Sentences 3.2.4.19.(10) and (11) NBC 1995 am. Québec do not apply if the sound signal devices are connected to a class "A" circuit according to CAN/ULC-S524, Installation of Fire Alarm Systems.

## II. Smoke alarms

**353.** *Smoke alarms* conforming to CAN/ULC-S531, Smoke Alarms, must be installed

- (1) in every *dwelling unit*;
  - (a) on each storey; and
  - (b) on each storey where bedrooms are located, the smoke alarms must be installed between the bedrooms and the remainder of the storey, except if the bedrooms are accessed by a corridor, in which case the smoke alarms must be installed in the corridor;
- (2) in each sleeping room that is not part of a *dwelling unit*, except in care or detention occupancies, which must be equipped with a fire alarm system;
- (3) in each corridor and each shared rest or activity area in a residential occupancy for the elderly that is not equipped with a fire alarm and detection system;
- (4) in sleeping rooms and in the corridors of a residential board and care occupancy designed in compliance with Article 3.1.2.5 of NBC 1995 am. Québec or 2005 am. Québec, if the bedrooms are not equipped with smoke detectors;
- (5) in each sleeping room, corridor and shared rest or activity area of a single-family type residential occupancy for the elderly.

**354.** Subject to the more stringent requirements of sections 355 and 356, the smoke alarms required under section 353 must, when required by the standard in force at the time of construction or alteration of the building,

- (1) be installed by permanent connections to an electrical circuit and have no disconnect switch between the overcurrent device and the smoke alarm; and
- (2) be wired so that the activation of one alarm will automatically cause all alarms within the dwelling unit to sound.

**355.** The smoke alarms required under paragraphs 3 to 5 of section 353 must

- (1) be installed by permanent connections to an electrical circuit and have no disconnect switch between the overcurrent device and the smoke alarm;
- (2) be wired so that the activation of one alarm will automatically cause all alarms within the dwelling unit to sound; and
- (3) be wired so that the activation of one alarm in a building housing a residential occupancy for the elderly of the rooming house type will automatically cause all the alarms to sound.

In addition, the smoke alarms required under paragraph 4 of section 353 must

- (1) be of a photoelectric type;
- (2) be interconnected and connected to visual signal devices that allow the personnel assigned to the sleeping rooms to see from where the smoke alarm is triggered, and
- (3) be connected to the fire department as provided for in NBC 1995 am. Québec.

**356.** Smoke alarms must be installed on or close to the ceiling in accordance with CAN/ULC-S553, Standard for the Installation of Smoke Alarms.

**357.** A manual device may be installed at a specific point in the electrical circuit for the smoke alarm in a dwelling unit to shut off the sound signal emitted by the smoke alarm for no more than 10 minutes; after that time, the smoke alarm must re-activate.

**358.** Every smoke alarm must be replaced 10 years after the date of manufacture indicated on the cover. If no date of manufacture is indicated, the smoke alarm is considered to be non-compliant and must be replaced without delay.



### III. Carbon monoxide alarms

**359.** A carbon monoxide alarm must be installed in every *dwelling unit*, residential occupancy for the elderly or residential board and care occupancy designed in compliance with Article 3.1.2.5. of NBC 1995 am. Québec or 2005 am. Québec that contains

- (1) a heating appliance; or
- (2) direct access to an indoor parking garage.

**360.** Carbon monoxide alarms must

- (1) conform to CAN/CSA-6.19, Residential Carbon Monoxide Alarming Devices;
- (2) be equipped with an integrated alarm that meets the audibility requirements of CAN/CSA-6.19, Residential Carbon Monoxide Alarming Devices;
- (3) be installed according to the manufacturer's recommendations.

### IV. Fire separation

**361.** In a building constructed or altered prior to 1 December 1976, the floors must constitute fire separations with a fire resistance rating of at least 30 minutes or meet the requirements of NBC 1980 am. Québec. The elements supporting the floors must also have a fire resistance rating of at least 30 minutes or meet the requirements of NBC 1980.

**362.** In a building constructed or altered prior to 25 May 1984, *suites of residential occupancy* must be isolated from the remainder of the building by *fire separations* in accordance with the requirements of Section 3.3 or with Part 9 of NBC 1980 am. Québec. However, existing fire separations may have a fire resistance rating of only 30 minutes.

**363.** In a care occupancy constructed or altered prior to 25 May 1984, all or part of a floor area occupied by bedrooms must conform to Subsection 3.3.3. of NBC 1980 am. Québec.

**364.** Every opening in a fire separation of a building constructed or altered prior to 25 May 1984 must be equipped with a closure in accordance with the requirements of NBC 1980 am. Québec.

**365.** A building constructed or altered prior to 25 May 1984 and containing a floor that does not end with a vertical fire separation from the floor to the underside of the floor or roof and have a fire resistance rating at least equal to the rating for the floor on which it abuts must meet the requirements of NBC 1980 am. Québec.

#### V. Emergency lighting

**366.** Emergency lighting must conform to the requirements of the Construction Code, NBC 1995 am. Québec.

**367.** In a single-family type residential occupancy for the elderly, emergency lighting must be installed in corridors, stairways and means of egress and be designed to provide automatically electric power for 30 minutes if the normal source of power supply fails.

#### VI. Flame-spread rating

**368.** In a residential occupancy for the elderly constructed or altered prior to 25 May 1984, the flame-spread rating of the interior finish of the walls and ceilings must conform to NBC 1985 am. Québec.

#### VII. Means of egress

**369.** In a single-family type residential occupancy for the elderly, when at least 1 bedroom is laid out to accommodate the elderly, the basement must have an exit opening directly to the exterior.

#### VIII. Sprinkler system

**369.1.** A building housing a private seniors' residence, constructed or altered in compliance with an applicable standard prior to NBC 2010 am. Québec, must be completely sprinklered, except

- (1) a single-family type residential occupancy for the elderly, provided that each storey accessible to the persons lodged in the occupancy is served by 2 means of egress, one of which leads directly to the exterior;
- (2) a residential board and care occupancy that lodges no more than 9 persons and whose building consists of a dwelling unit having a building height of no more than 2 storeys, provided that each storey accessible to the persons lodged in the occupancy is served by 2 means of egress,

one of which leads directly to the exterior and the other leads to another floor area and is separated from adjoining spaces by a fire separation;

- (3) a building housing solely a residential occupancy for the elderly having a building height of 1 storey, a building area no more than 600 m<sup>2</sup>, no more than 8 dwelling units and in which no more than 16 persons lodge.

369.2. The sprinkler system required in section 369.1 must conform to the requirements of Section 3.2.5. of NBC 2005 am. Québec, but must be designed, constructed, installed and tested in accordance with NFPA Standard 13, except a combustible concealed space no more than 450 mm high that does not have to be sprinklered.

Despite the foregoing, the following may be sprinklered in compliance with NFPA Standard 13D where the water supply capacity for the sprinkler system is not less than 30 minutes:

- (1) a single-family type residential occupancy for the elderly, provided that each storey accessible to the persons lodged in the occupancy, except the second storey, is served by 2 means of egress, one of which leads directly to the exterior;
- (2) a residential board and care occupancy that lodges no more than 9 persons and whose building consists of a dwelling unit having a building height of no more than 2 storeys, provided that each storey accessible to the persons lodged in the occupancy, except the second storey, is served by 2 means of egress, one of which leads directly to the exterior.

This section does not apply to a building which, on 2 December 2015, is completely sprinklered by a system installed in accordance with the standard applicable on the year of construction.

## **DIVISION V**

### **FIRE PROTECTION PROVISIONS ADOPTED BY WAY OF REFERENCE TO THE NATIONAL FIRE CODE**

**370.** The fire protection standards established by the National Fire Code of Canada 2010 (NRCC 53303) and the Code national de prévention des incendies – Canada 2010 (CNRC 53303F), hereinafter referred to as the NFCC, published by the Canadian Commission on Building and Fire Codes of the National Research Council of Canada, as well as by all subsequent amendments that may be published by that organization, apply to the buildings and facilities intended for use by the public referred to in this Chapter, amended, where applicable, as indicated in Appendix 1\*.

Despite the foregoing, amendments published after the date of coming into force of this section apply only as of the date that is the last day of the sixth month following the month of publication of the French text of the amendments.

\* Publisher's note: amendments indicated in Appendix 1 are incorporated in the Code reproduced in Division II. Appendix 1 is not reproduced.

## **DIVISION VI**

### **PROVISIONS RELATING TO THE MAINTENANCE OF FAÇADES AND MULTISTOREY GARAGES**

#### **§1 *Building façades***

##### **I. Application**

**371.** This subdivision applies to all building façades of 5 or more storeys above ground.

##### **II. Maintenance**

**372.** Building façades must be maintained so as to ensure safety and prevent the development of a dangerous condition.

##### **III. Register**

**373.** The following information or documents concerning a building must, during the building's lifetime, be recorded in or appended to a register kept available on the premises for consultation by the Board:

- (1) the owner's contact information;
- (2) if available, a copy of the construction plans for the façades as built, and any photograph, document or technical information showing the changes made;
- (3) a description of all repair, modification or maintenance work carried out on elements of the façade;
- (4) a description of recurrent repairs to solve a given problem;
- (5) façade inspection reports.

#### IV. Façade safety verification

**374.** Every 5 years, the owner of a building must obtain a verification report from an engineer or architect stating that the building's façades are not in a dangerous condition and, if applicable, that recommendations on ways to correct defects that may contribute to the development of a dangerous condition have been made.

#### V. Dangerous condition

**375.** For the purposes of this subdivision, a building is in a dangerous condition when, at any time, an element of the façade may detach itself from the building or collapse and cause personal injury.

**376.** When, during a verification or otherwise, a dangerous condition is detected, the owner must

- (1) implement emergency measures without delay to ensure the safety of occupants and the general public;
- (2) notify the Board without delay;
- (3) send the Board, within 30 days, a written description by an engineer or architect of the corrective work required to eliminate the dangerous condition and, for approval, a schedule for the corrective work;
- (4) ensure that the work is completed in accordance with the description, plan and schedule;
- (5) obtain, at the completion of the work, a verification report confirming the safety of the building's façades;
- (6) send to the Board a letter signed by the engineer or architect confirming that all the corrective work has been completed to the engineer's or architect's satisfaction and that the building is no longer in a dangerous condition.

**377.** An engineer or architect responsible for a verification who notes that a building is in a dangerous condition must inform the owner and the Board and describe the emergency measures established or to be established without delay to correct the dangerous condition.

#### VI. Requirements concerning the production of a verification report

- 378.** To produce a building façade verification report, each façade of a building must be examined. The choice of the verification method is the responsibility of an engineer or architect and the engineer or architect must order any test, examination or trial considered necessary.
- 379.** The owner must provide access to the site and make the construction plans and specifications and any other relevant documents available to the engineer or architect, along with previous verification reports.
- 380.** During the verification, loose, unstable, poorly attached or broken elements must be safely removed to discover the cause of the problem.
- 381.** The verifications required to produce the report must be made within 6 months before the date of production of the verification report.

#### VII. Frequency of verification reports

- 382.** The owner of a building must obtain a façade safety verification report no later than the date of the tenth anniversary of the building's construction.

However, if the building is over ten years old on 18 March 2013, the verification report must be obtained

- (1) within 24 months from that date if the building is more than 45 years old;
  - (2) within 36 months from that date if the building is more than 25 but less than 45 years old;
  - (3) within 48 months from that date if the building is more than 15 but less than 25 years old;
  - (4) within 60 months from that date if the building is more than 10 but less than 15 years old.
- 383.** Subsequently, the owner must obtain a façade safety verification report for every building within 5 years of the date of production of the previous report.

#### VIII. Content of the verification report certifying façade safety

- 384.** A verification report certifying façade safety must contain the following information or documents:
- (1) the name, signature and business address of the engineer or architect;

- (2) a description of the mandate, the documentary review, the observation methods applied and the scope of the verification;
- (3) the address of the building;
- (4) the dates of the inspection work;
- (5) the location and a description of any defects and their causes that may contribute to the development of a dangerous condition, such as water infiltration, rust spots, efflorescence, flaking, cracks, deformation, bulging or movement affecting the sheathing materials, or attachment problems affecting an element fixed to a façade, such as an antenna, canopy, sign or mast;
- (6) a description of the corrective work required to ensure that the building façades are safe, and the schedule recommended for its implementation;
- (7) a summary of the report confirming that the building façades are not in a dangerous condition and, where applicable, that recommendations have been submitted to the owner concerning ways to correct the defects observed that may contribute to the development of a dangerous condition;
- (8) appendices containing photographs, drawings and any other relevant information obtained during the verification, to complete the report.

## §2 *Multistorey garages*

### I. Application

**385.** This subdivision applies to underground and aboveground multistorey garages with a concrete slab whose driveable portion is not laid directly on the ground.

### II. Maintenance

**386.** A multistorey garage must be maintained so as to ensure safety and prevent the development of a dangerous condition.

### III. Register

**387.** The following information or documents concerning a multistorey garage must, during the garage's lifetime, be recorded in or appended to a register kept available on the premises for consultation by the Board:

- (1) the owner's contact information;
- (2) if available, a copy of the construction plans for the multistorey garage as built, and any photograph, document or technical information showing the changes made;
- (3) a description of all repair or modification work carried out on the multistorey garage;
- (4) a description of recurrent repairs to solve a given problem;
- (5) the annual verification reports and the reports on any problem observed with respect to the multistorey garage;
- (6) the in-depth verification reports for the multistorey garage.

#### IV. Annual verification

**388.** Each year, the owner of a multistorey garage must carry out a verification and record its condition in an information sheet, accompanied by dated photographs. The information sheet must contain the information and be presented in the form specified in Schedule 1.

#### V. In-depth verification of multistorey garage safety

**389.** Every 5 years, the owner of a multistorey garage must obtain, from an engineer, an in-depth verification report stating that the multistorey garage is not in a dangerous condition and, if applicable, that recommendations on ways to correct defects that may contribute to the development of a dangerous condition have been made.

**390.** An in-depth verification of the multistorey garage must also be carried out following any event that may affect its structural behaviour.

#### VI. Dangerous condition

**391.** A multistorey garage is in a dangerous condition when, at any time, one of its components may fall or collapse and cause personal injury.

**392.** When a dangerous condition is detected, the owner must



- (1) implement emergency measures without delay to ensure the safety of users and the general public;
- (2) notify the Board without delay;
- (3) send to the Board, within 30 days, a written description by an engineer of the corrective work required to eliminate the dangerous condition and, for approval, a schedule for the corrective work;
- (4) ensure that the work is completed in accordance with the description, plan and schedule;
- (5) obtain, at the completion of the work, a verification report confirming the safety of the multistorey garage;
- (6) send to the Board a letter signed by the engineer confirming that all the corrective work has been completed to the engineer's satisfaction and that the multistorey garage is no longer in a dangerous condition.

**393.** An engineer responsible for a verification who notes that a multistorey garage is in a dangerous condition must inform the owner and the Board and describe the emergency measures established or to be established without delay to correct the dangerous condition.

#### VII. Requirements concerning the production of an in-depth verification report

**394.** To produce a verification report, all the components of the multistorey garage must be examined. The choice of the verification method is the responsibility of an engineer and the engineer must order any test, examination or trial considered necessary.

**395.** The owner must provide access to the site and make the construction plans and specifications and any other relevant documents available to the engineer, including reports on the soil and foundations, previous annual verification reports and previous in-depth verification reports.

**396.** The verifications required to produce the report must be made within 6 months before the date of production of the verification report.

#### VIII. Frequency of in-depth verification reports

**397.** The owner of a multistorey garage must obtain an in-depth verification report no sooner than 12 months and no later than 18 months after construction work is completed.

**398.** For a multistorey garage more than 1 year but less than 5 years old, the owner must obtain an in-depth verification report before the end of the first year following 18 March 2013.

However, this verification is not required if the engineer who supervised the construction work prepares, less than 18 months after the end of the construction work, a report meeting the same requirements as an in-depth verification report.

**399.** For a multistorey garage over 5 years old, the owner must obtain an in-depth verification report within 3 years after 18 March 2013.

Subsequently, the owner must obtain an in-depth verification report on the safety of the multistorey garage within 5 years of the anniversary date of the previous verification report.

#### IX. Content of the in-depth verification report on multistorey garage safety

**400.** An in-depth verification report establishing the safety of a multistorey garage must contain the following information or documents:

- (1) the name, signature and business address of the engineer;
- (2) a description of the mandate, the documentary review, the observation methods applied and the scope of the verification;
- (3) information on the multistorey garage, including its location, age, dimensions, method of construction and load carrying capacity;
- (4) the date of the verification work;
- (5) the outcome of the verification of all the structural elements of the multistorey garage assessed, including concrete characteristics, the state of corrosion of the reinforcement, and a description of any defects that may contribute to the development of a dangerous condition, along with their causes;
- (6) the location of any defects noted during the verification;
- (7) a description of the corrective work required to ensure that the multistorey garage remains safe, and the schedule recommended for its implementation;
- (8) a summary of the report confirming that the multistorey garage is not in a dangerous condition and, where applicable, that recommendations have

been submitted to the owner concerning ways to correct the defects observed that may contribute to the development of a dangerous condition;

- (9) appendices containing photographs, drawings and any other relevant information obtained during the in-depth verification, to complete the report.

## **DIVISION VII**

### **PROVISIONS RESPECTING THE MAINTENANCE OF WATER COOLING TOWERS**

#### I. Maintenance

**401.** A water cooling tower facility must be maintained according to a maintenance program.

**402.** The maintenance program must be drawn up and signed by one or more members of a professional order according to their field of practice and whose activities are related to the field of water cooling towers. The program must contain

- (1) the procedure for winterizing and re-starting, if applicable;
- (2) the procedure for stopping and re-starting during the operation period;
- (3) the cleaning procedure;
- (4) the procedure for maintaining the quality of the water in order to minimize the development of bacteria and to permanently limit the *Legionella pneumophila* concentration to a level below 10,000 CFU/L (colony-forming units per litre of water). That procedure must include
  - (a) the place where the samples must be taken for the analysis of the *Legionella pneumophila* concentration in the water; and
  - (b) the corrective measures to be applied when the result of a sample analysis indicates a *Legionella pneumophila* concentration equal to or greater than 10,000 CFU/L but less than 1,000,000 CFU/L, in order to bring the *Legionella pneumophila* concentration to a level below 10,000 CFU/L;
- (5) the decontamination procedure to be applied when the result of a sample analysis indicates a *Legionella pneumophila* concentration of 1,000,000 CFU/L or more;

- (6) the measures for reducing corrosion, scaling and the accumulation of organic matter;
- (7) a schematic plan of the network of cooling water flow;
- (8) the list of the chemical products and substances to be used and their description, if applicable; and
- (9) the measures for verifying the mechanical components of the water cooling tower facility.

The maintenance program must be drawn up by taking into account the documents in Schedule III.

**403.** The maintenance program must take into account the history of the water cooling tower facility, including

- (1) a major breakdown;
- (2) the repairs made following the breakdown;
- (3) the use of the decontamination; and
- (4) the replacement of a device or equipment.

**404.** The program must be revised, by one or more members of a professional order according to their field of practice and whose activities are related to the field of water cooling towers, ever 5 years or following one of the following events:

- (1) an alteration of the water cooling tower facility affecting the maintenance program;
- (2) a change in the procedure for maintaining the quality of water;
- (3) the use of the decontamination procedure.

§2 Declaration of the water cooling tower facility

**405.** Owners of water cooling towers facilities must send to the Board, within 30 days of the facility's initial start-up and on 1 March of each year,

- (1) the address where the water cooling tower facility is located;

- (2) the name and contact information of the owner of the water cooling tower facility;
- (3) the name of the member or members of a professional order who drew up the maintenance program; and
- (4) a brief description of the type of water cooling tower facility.
- (5) the operation period of the water cooling tower facility; and
- (6) the name of the person in charge of maintenance and that person's telephone number.

The declaration may be made on the form provided for that purpose by the Board or on any other document containing the same information clearly and legibly drawn up for that purpose.

Owners of water cooling tower facilities must immediately inform the Board of any change to the information provided under this section.

## II. Register

**406.** The following information and documents relating to a water cooling tower facility must be entered in a register, available on the premises for consultation by the Board, during the existence of the facility:

- (1) the name and contact information of the owner of the water cooling tower facility;
- (2) if available, the copy of the plans for the design and installation of the water cooling tower facility as executed, and any technical document or information related to the alterations made to the plans;
- (3) the manufacturer's operation and maintenance manual;
- (4) the maintenance programs;
- (5) the results of the water analyses for the past 2 years, namely:
  - (a) the forms for sending samples to the laboratory and the results of the *Legionella pneumophila* concentration analyses;
  - (b) the analysis results or the readings of the physical, chemical or microbiological indicators identified by the professional who drew up the procedure for maintaining the quality of water;

- (6) the history and description of the maintenance, repairs, replacements and alterations made;
- (7) the name of the person responsible for and of the personnel assigned to the maintenance and their telephone number.

*§4 Taking and analysis of samples to determine the Legionella pneumophila concentration*

- 407.** The owner must take samples or cause them to be taken and have them analysed to determine the *Legionella pneumophila* concentration in CFU/L:
- (1) at the time of re-starting, after winterizing;
  - (2) at least once every 30 days, during the operation period;
  - (3) between 2 and 7 days, following the application of the decontamination procedure.
- 408.** The sample must be taken at a point in the circuit that is the most representative of the water that will be dispersed by aerosol and out of the direct influence of the make-up water and of the addition of treatment products.
- 409.** The sample must be taken and kept in accordance with Standard DR-09-11, *Protocole d'échantillonnage de l'eau du circuit des tours de refroidissement pour la recherche des légionnelles*, published by the Centre d'expertise en analyse environnementale du Québec.
- 410.** The sample must be sent for analysis to a laboratory accredited by the Centre d'expertise en analyse environnementale du Québec for the determination of *Legionella pneumophila* concentration.
- 411.** The sample analysis to determine the *Legionella pneumophila* concentration must be made by a method using culture mediums.
- 412.** Each sample taken sent to an accredited laboratory must be accompanied by a sending form duly completed. The form must include the following information:
- (1) the address where the water cooling tower facility is located;
  - (2) the name and contact information of the owner of the water cooling tower facility;
  - (3) the identification number of the water cooling tower facility assigned by the Board;

- (4) the date and time of sampling and the water temperature;
- (5) the name and signature of the sampler;
- (6) the reference and location of the point of sampling;
- (7) the nature and concentration of treatment products; and
- (8) the date and time of the last injection of treatment products in the network of the water cooling tower facility, if such injection is not continuous.

*§5 Results of the analysis for Legionella pneumophila concentration*

- 413.** The owner must make sure to obtain all the results of the analysis made by the accredited laboratory to determine *Legionella pneumophila* concentration.
- 414.** The owner must make sure that the Board receives from the accredited laboratory all the results of the analysis made by the accredited laboratory within 30 days of the sample taking, using an information technology medium furnished by the Board.
- 415.** The owner must make sure to obtain the result of the accredited laboratory on the business day following the result of the analyses where a result
- (1) indicates a *Legionella pneumophila* concentration equal to or greater than 10,000 CFU/L but below 1,000,000 CFU/L;
  - (2) makes impossible to quantify the *Legionella pneumophila* concentration by reason of the presence of interfering flora.
- 416.** The owner must make sure to obtain the result of the accredited laboratory without delay when an analysis result indicates a *Legionella pneumophila* concentration of 1,000,000 CFU/L or more. In that case, the owner must make sure that the Board and the public health director of the region where the water cooling tower facility is located receive the result from the accredited laboratory without delay.
- In that case, the owner must also make sure that the accredited laboratory will keep the sample isolate or isolates and the analysis result for 3 months.
- 417.** Where the analysis result indicates a *Legionella pneumophila* concentration equal to or greater than 10,000 CFU/L but below 1,000,000 CFU/L, the owner of the water cooling tower facility must
- (1) identify the causes of the increase in the *Legionella pneumophila* concentration;

- (2) apply corrective measures; and
- (3) verify the effectiveness of the corrective measures.

**418.** Where the analysis result makes it impossible to quantify the *Legionella pneumophila* concentration by reason of the presence of an interfering flora, the owner of the water cooling tower facility must

- (1) identify the causes of the presence of interfering flora;
- (2) apply corrective measures; and
- (3) verify the effectiveness of the corrective measures.

**419.** Where the analysis result indicates a *Legionella pneumophila* concentration of 1,000,000 CFU/L or more, the owner of the water cooling tower facility must

- (1) implement measures that will eliminate any water dispersion by aerosol, such as stopping the ventilators;
- (2) immediately apply the decontamination procedure;
- (3) identify the causes of the concentration above 1,000,000 CFU/L with the member or members of a professional order who drew up the maintenance program;
- (4) apply corrective measures;
- (5) verify the effectiveness of the corrective measures; and
- (6) take a new sample in accordance with the third paragraph of section 407 and send it to the accredited laboratory for a new analysis of the *Legionella pneumophila* concentration.

## **DIVISION VIII**

### **OFFENCE**

Any violation of the provisions of this Chapter constitutes an offence.

## **DIVISION IX**

### **TRANSITIONAL**



- This Regulation comes into force on 18 March 2013.

Despite the foregoing, sections 353 to 357, 359, 360 and 366 to 368 come into force on 18 March 2014.

Sections 346 to 352 and 369 come into force on 18 March 2016.

Sections 361 to 365 come into force on 18 March 2018.

- The regulation on the maintenance of water cooling towers comes on into force on 12 May 2013.
- For water cooling towers already in operation, the owners must send to the Board the information required under section 405, introduced by section 2 of this Regulation, on 12 May 2013.
- The Regulation on the collection and analysis of a water sample for the installation of water cooling towers to determine the concentration of Legionella pneumophila comes on into force on 12 July 2014.

However, section 414 comes on into force on 1 April 2016.

- Regulation introducing the 2010 NBC amended Québec comes on into force June 13, 2015.
- The regulations concerning the installation of a sprinkler system in private seniors' residence comes on into force 18 March 2016.

However, Articles 369.1, 369.2 and Articles 2.1.3.6. and B-2.1.3.6. NFC amended Québec 2010 comes on into force December 2, 2020.

**SCHEDULE II** (a. 388):

**Information sheet for the annual verification of a multistorey garage**

**Name of owner:** .....

**Address of building:** .....

.....  
**Date of verification:** ..... **Verified by:** .....

**Identification of slab :**.....

| Element                              | Yes | No | Location | Photograph # | Description and remarks |
|--------------------------------------|-----|----|----------|--------------|-------------------------|
| <b>Slab</b>                          |     |    |          |              |                         |
| - Subsidence/deformation             |     |    |          |              |                         |
|                                      |     |    |          |              |                         |
| <b>Upper surface of slab</b>         |     |    |          |              |                         |
| - Membrane worn                      |     |    |          |              |                         |
| - Potholes                           |     |    |          |              |                         |
| - Superficial cracks                 |     |    |          |              |                         |
| - Deterioration of concrete          |     |    |          |              |                         |
| - Reinforcement exposed              |     |    |          |              |                         |
| - Rust spots                         |     |    |          |              |                         |
|                                      |     |    |          |              |                         |
| <b>Lower surface of slab</b>         |     |    |          |              |                         |
| - Moisture spots, water infiltration |     |    |          |              |                         |
| - Efflorescence                      |     |    |          |              |                         |
| - Reinforcement exposed              |     |    |          |              |                         |
| - Rust spots                         |     |    |          |              |                         |
| - Deterioration of concrete          |     |    |          |              |                         |
|                                      |     |    |          |              |                         |
| <b>Walls</b>                         |     |    |          |              |                         |
| - Bulging/deformation                |     |    |          |              |                         |
| - Cracks                             |     |    |          |              |                         |
| - Water infiltration                 |     |    |          |              |                         |
|                                      |     |    |          |              |                         |
| <b>Beams and columns</b>             |     |    |          |              |                         |
| - Cracks                             |     |    |          |              |                         |
| - Reinforcement exposed              |     |    |          |              |                         |
| - Rust spots                         |     |    |          |              |                         |
|                                      |     |    |          |              |                         |

|                                     |  |  |  |  |  |
|-------------------------------------|--|--|--|--|--|
| <b>Expansion joints</b>             |  |  |  |  |  |
| - Deterioration of expansion joints |  |  |  |  |  |
|                                     |  |  |  |  |  |
| <b>Drains</b>                       |  |  |  |  |  |
| - Poor operating condition          |  |  |  |  |  |
| - Accumulation of water             |  |  |  |  |  |

**SCHEDULE III** (a 402):

**Maintenance of a water cooling tower facility**

The documents to be taken into account for the maintenance program provided for in section 402 are

- (1) the manufacturer's operation and maintenance manual;
- (2) the guides recognized for the maintenance of water cooling towers such as:
  - (a) Guideline-WTB-148(08)-Best Practices for Control of Legionella published by the Cooling Technology Institute (CTI);
  - (b) the manuals of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), including Guideline-12-2000-Minimizing the Risk of Legionellosis Associated with Building Water Systems;
  - (c) Legionella 2003: An Update and Statement by the Association of Water technologies (AWT).

# **DIVISION II**



# Revisions and Errata

## Issued by the Canadian Commission on Building and Fire Codes

The Change History table that follows describes revisions, errata and editorial updates that apply to the National Fire Code of Canada 2010:

- Revisions are changes deemed urgent that have been approved by the Canadian Commission on Building and Fire Codes.
- Errata are corrections to existing text.
- Editorial updates are provided for information purposes only.

Code pages containing revisions and/or errata are identified with the words “Amended Page” in the footer; pages with editorial updates are not flagged.

Contact your local authority having jurisdiction to find out if these revisions and errata apply in your province or territory.

### Change History — National Fire Code of Canada 2010

| Division | Code Reference   | Change           | Date (Y-M-D) | Description of Change  |
|----------|------------------|------------------|--------------|--|
| Preface  | n/a              | editorial update | 2012-12-21   | Text referring to application statements was deleted as these statements are no longer being published       |
| B        | 1.3.1.1.(1)      | revision         | 2013-10-31   | Date stated in Sentence was revised to read “30 June 2012”   |
| B        | Table 1.3.1.2.   | revision         | 2013-10-31   | Document references were updated as applicable to reflect more recent editions published as of June 30, 2012 |
| B        | Table 2.14.1.1.  | erratum          | 2012-12-21   | Attributions were added for Sentence 2.3.2.3.(2)   |
| B        | Table 3.4.1.1.   | erratum          | 2012-12-21   | Attributions for Sentence 3.2.7.5.(6) were deleted   |
| B        | Table 3.4.1.1.   | erratum          | 2012-12-21   | Attributions were added for Clause 3.2.7.8.(1)(b)  |
| B        | 4.3.9.2.         | erratum          | 2012-12-21   | Article 4.3.10.2. was moved and renumbered Article 4.3.9.2.  |
| B        | 4.3.9.3.         | erratum          | 2012-12-21   | Article 4.3.10.3. was moved and renumbered Article 4.3.9.3.  |
| B        | 4.5.6.1.(1)      | erratum          | 2012-12-21   | Sentence was corrected to read “Except for vent risers and ...”  |
| B        | Table 4.12.1.1.  | erratum          | 2012-12-21   | Attributions were added for Sentence 4.1.7.3.(1)   |
| B        | Table 4.12.1.1.  | erratum          | 2012-12-21   | Attributions for Sentence 4.2.9.5.(1) were deleted   |
| B        | Table 4.12.1.1.  | erratum          | 2012-12-21   | Attributions for objective OS1.1 for Sentence 4.3.12.3.(6) were deleted                                      |
| B        | Table 4.12.1.1.  | erratum          | 2012-12-21   | Attributions for Clause 4.3.13.5.(2)(a) were deleted   |
| B        | Table 4.12.1.1.  | erratum          | 2012-12-21   | Attributions were added for Sentence 4.3.13.6.(1)  |
| B        | Section 6.7.     | erratum          | 2012-12-21   | Title of Section was corrected to read “Smoke Alarms and Carbon Monoxide Alarms”                             |
| B        | 6.7.1.1.(3)      | erratum          | 2012-12-21   | Sentence was corrected to read “Carbon monoxide alarms ...”  |
| B        | Table A-1.3.1.2. | revision         | 2013-10-31   | Document references were updated as applicable to reflect more recent editions published as of June 30, 2012 |





# **Part 1 General**

## **Section 1.1. General**

### **1.1.1. Application**

#### **1.1.1.1. Application**

**1)** This Part applies to all *buildings* and facilities covered in this Code. (See Article 1.1.1.1. of Division A.)

### **1.1.2. Objectives and Functional Statements**

#### **1.1.2.1. Attribution to Acceptable Solutions**

**1)** For the purposes of compliance with this Code as required in Clause 1.2.1.1.(1)(b) of Division A, the objectives and functional statements attributed to the acceptable solutions in Division B shall be the objectives and functional statements identified in Sections 2.14., 3.4., 4.12., 5.7., 6.8. and 7.4. (See Appendix A.)

## **Section 1.2. Terms and Abbreviations**

### **1.2.1. Definitions of Words and Phrases**

#### **1.2.1.1. Non-defined Terms**

**1)** Words and phrases used in Division B that are not included in the list of definitions in Article 1.4.1.2. of Division A shall have the meanings that are commonly assigned to them in the context in which they are used, taking into account the specialized use of terms by the various trades and professions to which the terminology applies.

**2)** Where objectives and functional statements are referred to in Division B, they shall be the objectives and functional statements described in Parts 2 and 3 of Division A.

**3)** Where acceptable solutions are referred to in Division B, they shall be the provisions stated in Parts 2 to 7.

#### **1.2.1.2. Defined Terms**

**1)** The words and terms in italics in Division B shall have the meanings assigned to them in Article 1.4.1.2. of Division A.

### **1.2.2. Symbols and Other Abbreviations**

#### **1.2.2.1. Symbols and Other Abbreviations**

**1)** The symbols and other abbreviations in Division B shall have the meanings assigned to them in Article 1.4.2.1. of Division A and Article 1.3.2.1.

## Section 1.3. Referenced Documents and Organizations

### 1.3.1. Referenced Documents

#### 1.3.1.1. Effective Date

1) Unless otherwise specified herein, the documents referenced in this Code shall include all amendments, revisions, reaffirmations, reapprovals, addenda and supplements effective to 30 June 2012.

#### 1.3.1.2. Applicable Editions

1) Where documents are referenced in this Code, they shall be the editions designated in Table 1.3.1.2. (See Appendix A.)

**Table 1.3.1.2.**  
**Documents Referenced in the National Fire Code of Canada 2010**  
Forming Part of Sentence 1.3.1.2.(1)

| Issuing Agency | Document Number <sup>(1)</sup> | Title of Document <sup>(2)</sup>   | Code Reference                            |
|----------------|--------------------------------|--|---|
| API            | ANSI/API 5L-2007               | Line Pipe  | 4.5.2.1.(4)                               |
| API            | ANSI/API 12B-2008              | Bolted Tanks for Storage of Production Liquids   | 4.3.1.2.(1)                               |
| API            | 12D-2008                       | Field Welded Tanks for Storage of Production Liquids   | 4.3.1.2.(1)                               |
| API            | 12F-2008                       | Shop Welded Tanks for Storage of Production Liquids  | 4.3.1.2.(1)                               |
| API            | 620-2008                       | Design and Construction of Large, Welded, Low-Pressure Storage Tanks   | 4.3.1.3.(1)                               |
| API            | 650-2007                       | Welded Tanks for Oil Storage   | 4.3.1.2.(1)                               |
| API            | 653-2009                       | Tank Inspection, Repair, Alteration, and Reconstruction  | Table 4.4.1.2.-B                          |
| API            | 1104-2005                      | Welding of Pipelines and Related Facilities  | 4.5.5.2.(1)                               |
| API            | 2000-2009                      | Venting Atmospheric and Low-Pressure Storage Tanks   | 4.3.4.1.(1)                               |
| ASME           | BPVC-2010                      | Boiler and Pressure Vessel Code  | 4.3.1.3.(1)<br>4.5.9.5.(2)<br>4.5.9.6.(1) |
| ASME           | B16.5-2009                     | Pipe Flanges and Flanged Fittings NPS ½ Through NPS 24 Metric/Inch Standard  | 4.5.5.3.(1)                               |
| ASME           | B31.3-2010                     | Process Piping   | 4.5.2.1.(5)                               |
| ASME/CSA       | ASME A17.1-2010/CSA B44-10     | Safety Code for Elevators and Escalators   | 7.2.2.1.(2)                               |
| ASTM           | A 53/A 53M-10                  | Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless  | 4.5.2.1.(4)                               |
| ASTM           | A 193/A 193M-11a               | Alloy-Steel and Stainless Steel Bolting for High Temperature or High Pressure Service and Other Special Purpose Applications | 4.5.5.4.(1)                               |
| ASTM           | D 56-05                        | Flash Point by Tag Closed Cup Tester   | 4.1.3.1.(1)                               |
| ASTM           | D 93-11                        | Flash Point by Pensky-Martens Closed Cup Tester  | 4.1.3.1.(2)                               |
| ASTM           | D 323-08                       | Vapor Pressure of Petroleum Products (Reid Method)   | 1.4.1.2.(1) <sup>(3)</sup>                |
| ASTM           | D 3278-96                      | Flash Point of Liquids by Small Scale Closed-Cup Apparatus   | 4.1.3.1.(4)                               |
| ASTM           | D 3828-09                      | Flash Point by Small Scale Closed Cup Tester   | 4.1.3.1.(3)                               |

**Table 1.3.1.2. (Continued)**

| Issuing Agency | Document Number <sup>(1)</sup> | Title of Document <sup>(2)</sup>   | Code Reference   |
|----------------|--------------------------------|--|--|
| CCBFC          | NRCC 40383                     | User's Guide – NBC 1995, Fire Protection, Occupant Safety and Accessibility (Part 3) | 7.1.1.2.(2)<br>7.2.3.1.(1)<br>7.2.3.3.(1)<br>7.3.2.1.(1)<br>7.3.3.1.(1)<br>7.3.4.1.(1)<br>7.3.5.1.(1)<br>7.3.6.1.(1)<br>7.3.7.1.(1)<br>7.3.8.1.(1)<br>7.3.9.1.(1)<br>7.3.10.1.(1)<br>7.3.11.1.(1)<br>7.3.12.1.(1)<br>7.3.13.1.(1)<br>7.3.14.1.(1)<br>7.3.15.1.(1)  |
| CCBFC          | NRCC 53301                     | National Building Code of Canada 2010  | 1.3.3.2.(1) <sup>(3)</sup><br>1.4.1.2.(1) <sup>(3)</sup><br>2.1.2.1.(1)<br>2.1.3.1.(1)<br>2.1.3.2.(1)<br>2.1.3.4.(1)<br>2.1.3.6.(1)<br>2.1.3.8.(1)<br>2.2.1.1.(1)<br>2.2.1.1.(2)<br>2.2.1.1.(3)<br>2.2.2.1.(1)<br>2.2.2.1.(2)<br>2.2.2.4.(2)<br>2.3.1.1.(1)<br>2.3.1.2.(1) <sup>(4)</sup><br>2.3.1.4.(1)<br>2.4.1.2.(1)<br>2.5.1.1.(1)<br>2.6.1.1.(1)<br>2.6.1.5.(1)<br>2.6.1.9.(1)<br>2.6.2.1.(1)<br>2.7.1.1.(1)<br>2.7.1.2.(1)<br>2.7.1.4.(2)<br>2.7.3.1.(1)<br>2.8.1.1.(1)<br>2.8.2.4.(1)<br>2.8.2.5.(2)<br>2.8.3.1.(1)<br>2.8.3.2.(1)<br>2.9.1.1.(1)<br>2.9.3.6.(1)<br>2.10.1.1.(1)<br>2.11.1.1.(1)<br>2.13.2.1.(1)<br>3.1.4.1.(1)<br>3.2.4.2.(1)<br>3.2.6.2.(1)<br>3.2.7.5.(6)<br>3.2.7.5.(7)<br>3.2.7.8.(1)<br>3.2.7.12.(3)<br>3.2.8.2.(1) |

Table 1.3.1.2. (Continued)

| Issuing Agency | Document Number <sup>(1)</sup> | Title of Document <sup>(2)</sup>  | Code Reference  |
|----------------|--------------------------------|---|---|
| CCBFC          | NRCC 53301 (continued)         | National Building Code of Canada 2010   | 3.2.8.3.(1)<br>3.2.9.2.(1)<br>3.2.9.2.(2)<br>3.2.9.2.(3)<br>3.2.9.2.(5)<br>3.3.2.5.(1)<br>4.1.7.1.(1)<br>4.2.7.5.(2)<br>4.2.9.5.(1)<br>4.2.11.3.(1)<br>4.3.2.4.(2)<br>4.3.3.2.(1)<br>4.3.14.4.(1)<br>4.5.6.10.(2)<br>4.5.8.2.(3)<br>4.6.3.3.(2)<br>4.6.3.3.(3)<br>4.9.3.2.(1)<br>5.1.3.1.(1)<br>5.3.3.4.(1)<br>5.5.2.2.(1)<br>5.5.4.2.(1)<br>5.5.4.3.(1)<br>5.6.1.6.(1)<br>5.6.1.6.(2)<br>5.6.1.8.(2)<br>5.6.1.20.(1)<br>7.1.1.1.(1)<br>7.1.1.2.(1)<br>7.1.1.2.(2)<br>7.1.1.4.(2) |
| CGSB           | CAN/CGSB-4.162-M80             | Hospital Textiles – Flammability Performance Requirements                                     | 2.3.2.3.(1)   |
| CNSC           | SOR/2000-209                   | Nuclear Safety and Control Act (S.C. 1997, c. 9)  | 3.1.1.2.(1)   |
| CPPI           | 1990                           | Using the CPPI Colour-Symbol System to Mark Equipment and Vehicles for Product Identification | 4.3.1.7.(1)<br>4.5.4.1.(3)<br>4.5.7.6.(1)   |
| CSA            | B51-09                         | Boiler, Pressure Vessel, and Pressure Piping Code   | 4.3.1.3.(2)   |
| CSA            | CAN/CSA-B108-99                | Natural Gas Fuelling Stations Installation Code   | 4.6.1.1.(2)   |
| CSA            | B139-09                        | Installation Code for Oil-Burning Equipment   | 4.1.1.1.(3)<br>4.3.13.6.(1)<br>5.6.1.10.(1)   |
| CSA            | CAN/CSA-B149.1-10              | Natural Gas and Propane Installation Code   | 3.1.1.4.(2)<br>3.1.1.4.(3)<br>4.6.1.1.(2)<br>5.6.1.10.(1)   |
| CSA            | CAN/CSA-B149.2-10              | Propane Storage and Handling Code   | 3.1.1.4.(2)<br>3.2.8.2.(3)<br>4.6.1.1.(2)   |
| CSA            | CAN/CSA-B149.5-05              | Installation Code for Propane Fuel Systems and Tanks on Highway Vehicles                      | 2.4.4.3.(1)   |
| CSA            | B306-M1977                     | Portable Fuel Tanks for Marine Use  | 4.2.3.1.(1)   |
| CSA            | B346-M1980                     | Power-Operated Dispensing Devices for Flammable Liquids                                       | 4.6.3.1.(1)   |
| CSA            | B376-M1980                     | Portable Containers for Gasoline and Other Petroleum Fuels                                    | 4.2.3.1.(1)   |
| CSA            | B620-09                        | Highway Tanks and Portable Tanks for the Transportation of Dangerous Goods                    | 4.2.3.1.(1)   |

**Table 1.3.1.2. (Continued)**

| Issuing Agency | Document Number <sup>(1)</sup>  | Title of Document <sup>(2)</sup>  | Code Reference   |
|----------------|---------------------------------|---|--|
| CSA            | C22.1-12                        | Canadian Electrical Code, Part I  | 4.1.4.1.(1)<br>4.1.4.1.(2)<br>5.1.2.1.(1)<br>5.1.2.2.(1)<br>5.3.1.2.(2)<br>5.3.1.2.(3)<br>5.3.1.10.(2)<br>5.5.3.4.(1)<br>5.6.1.9.(3) |
| CSA            | C282-09                         | Emergency Electrical Power Supply for Buildings                                       | 6.5.1.1.(1)<br>6.5.1.4.(1)   |
| CSA            | CAN/CSA-W117.2-06               | Safety in Welding, Cutting and Allied Processes                                       | 5.2.1.1.(2)  |
| CSA            | Z32-09                          | Electrical Safety and Essential Electrical Systems in Health Care Facilities          | 6.5.1.1.(2)  |
| CSA            | Z245.1-07                       | Steel Pipe  | 4.5.2.1.(4)  |
| HC             | R.S.C., 1985, c. H-3            | Hazardous Products Act  | 4.2.3.2.(2)  |
| HC             | Hazardous Products Act, Part II | Workplace Hazardous Materials Information System (WHMIS)                              | Table 3.2.7.1.<br>3.2.7.15.(2)   |
| HC             | 2002, c. 28                     | Pest Control Products Act   | 4.2.3.2.(2)  |
| IMO            | 2010                            | International Maritime Dangerous Goods Code   | 3.3.4.8.(1)  |
| NACE           | SP0169-2007                     | Control of External Corrosion on Underground or Submerged Metallic Piping Systems     | 4.5.3.1.(1)  |
| NACE           | SP0285-2011                     | External Corrosion Control of Underground Storage Tank Systems by Cathodic Protection | 4.3.10.1.(1)   |
| NFPA           | 10-2010                         | Portable Fire Extinguishers (except paragraph 4.4.1)                                  | 2.1.5.1.(2)<br>6.2.1.1.(1)   |
| NFPA           | 11-2010                         | Low-, Medium-, and High-Expansion Foam  | 2.1.3.5.(3)<br>4.3.2.5.(2)   |
| NFPA           | 12-2011                         | Carbon Dioxide Extinguishing Systems  | 2.1.3.5.(3)  |
| NFPA           | 12A-2009                        | Halon 1301 Fire Extinguishing Systems   | 2.1.3.5.(3)  |
| NFPA           | 12B-1990                        | Halon 1211 Fire Extinguishing Systems   | 2.1.3.5.(3)  |
| NFPA           | 13-2013 <sup>(5)</sup>          | Installation of Sprinkler Systems   | 3.2.1.1.(1)<br>3.2.2.4.(3)<br>3.2.3.3.(1)<br>3.2.4.3.(1)<br>3.2.6.3.(4)  |
| NFPA           | 15-2012                         | Water Spray Fixed Systems for Fire Protection   | 2.1.3.5.(4)<br>4.3.2.5.(2)   |
| NFPA           | 16-2011                         | Installation of Foam-Water Sprinkler and Foam-Water Spray Systems                     | 2.1.3.5.(4)  |
| NFPA           | 17-2009                         | Dry Chemical Extinguishing Systems  | 2.1.3.5.(3)  |
| NFPA           | 17A-2009                        | Wet Chemical Extinguishing Systems  | 2.1.3.5.(3)  |
| NFPA           | 18-2011                         | Wetting Agents  | 2.1.3.5.(5)  |
| NFPA           | 25-2011                         | Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems           | 6.4.1.1.(1)  |
| NFPA           | 30-2012                         | Flammable and Combustible Liquids Code  | 4.2.7.6.(1)  |
| NFPA           | 30B-2011                        | Manufacture and Storage of Aerosol Products   | 3.2.5.2.(1)<br>3.2.5.5.(1)   |
| NFPA           | 32-2011                         | Drycleaning Plants  | 5.4.2.1.(1)  |
| NFPA           | 33-2011                         | Spray Application Using Flammable or Combustible Materials                            | 5.4.5.2.(1)  |
| NFPA           | 34-2011                         | Dipping and Coating Processes Using Flammable or Combustible Liquids                  | 5.4.6.2.(1)  |
| NFPA           | 37-2010                         | Installation and Use of Stationary Combustion Engines and Gas Turbines                | 4.3.13.2.(1)   |

Table 1.3.1.2. (Continued)

| Issuing Agency | Document Number <sup>(1)</sup>        | Title of Document <sup>(2)</sup>  | Code Reference  |
|----------------|---------------------------------------|---|---|
| NFPA           | 45-2011                               | Fire Protection for Laboratories Using Chemicals  | 5.5.1.1.(2)<br>5.5.2.2.(2)<br>5.5.4.2.(3)<br>5.5.4.3.(1)<br>5.5.5.1.(4)<br>5.5.5.2.(4)  |
| NFPA           | 51-2007                               | Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied Processes                 | 5.2.2.4.(1)   |
| NFPA           | 68-2007                               | Explosion Protection by Deflagration Venting  | 3.2.8.2.(1)<br>4.2.9.5.(1)<br>4.3.14.3.(1)<br>4.9.3.1.(1)<br>4.9.4.2.(1)<br>5.3.1.6.(2)   |
| NFPA           | 69-2008                               | Explosion Prevention Systems  | 4.3.2.5.(2)<br>4.9.4.2.(1)<br>5.3.1.7.(2)   |
| NFPA           | 82-2009                               | Incinerators and Waste and Linen Handling Systems and Equipment   | 2.6.2.2.(1)   |
| NFPA           | 86-2011                               | Ovens and Furnaces  | 5.4.1.2.(1)   |
| NFPA           | 91-2010                               | Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids              | 3.2.2.3.(5)<br>4.1.7.2.(5)  |
| NFPA           | 96-2011                               | Ventilation Control and Fire Protection of Commercial Cooking Operations                                      | 2.6.1.9.(2)   |
| NFPA           | 101-2009                              | Life Safety Code  | 2.7.1.5.(4)<br>2.7.1.5.(5)  |
| NFPA           | 505-2011                              | Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations | 3.1.3.1.(1)   |
| NFPA           | 664-2012                              | Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities                              | 5.3.1.3.(2)<br>5.3.2.1.(1)  |
| NFPA           | 705-2009                              | Field Flame Test for Textiles and Films   | 2.3.2.2.(1)<br>2.9.2.1.(1)  |
| NRCCan         | R.S.C., 1985, c. E-17                 | Explosives Act  | 3.1.1.3.(1)<br>5.1.1.2.(1)  |
| NRCCan         | 2010                                  | Display Fireworks Manual  | 5.1.1.3.(1)   |
| TC             | SOR/96-433                            | Canadian Aviation Regulations – Part III  | 2.13.1.1.(1)  |
| TC             | SOR/2001-286                          | Transportation of Dangerous Goods Regulations (TDGR)  | 1.4.1.2.(1) <sup>(3)</sup><br>3.1.2.1.(1)<br>3.1.2.5.(1)<br>Table 3.2.7.1.<br>3.2.7.1.(2)<br>3.2.7.14.(1)<br>3.2.7.14.(4)<br>3.2.7.15.(2)<br>3.3.4.1.(3)<br>4.1.1.1.(3)<br>4.2.3.1.(1)<br>4.2.3.2.(2) |
| TC             | 2001                                  | Standards Respecting Pipeline Crossings Under Railways  | 4.5.6.5.(3)   |
| TC             | SOR/82-1015                           | Railway Prevention of Electric Sparks Regulations   | 4.7.4.5.(2)<br>4.8.5.1.(1)  |
| TC             | General Order No. O-32, C.R.C., c1148 | Flammable Liquids Bulk Storage Regulations  | 4.5.6.5.(4)<br>4.7.2.2.(1)<br>4.7.4.1.(2)   |
| ULC            | CAN/ULC-S109-03                       | Flame Tests of Flame-Resistant Fabrics and Films  | 2.3.2.1.(1)   |
| ULC            | CAN/ULC-S137-07                       | Fire Growth of Mattresses (Open Flame Test)   | 2.3.2.3.(2)   |

**Table 1.3.1.2. (Continued)**

| Issuing Agency | Document Number <sup>(1)</sup> | Title of Document <sup>(2)</sup>  | Code Reference  |
|----------------|--------------------------------|---|---|
| ULC            | CAN/ULC-S503-05                | Carbon-Dioxide Fire Extinguishers   | 2.1.5.1.(3)   |
| ULC            | CAN/ULC-S504-12                | Dry Chemical Fire Extinguishers   | 2.1.5.1.(3)   |
| ULC            | CAN/ULC-S507-05                | Water Fire Extinguishers  | 2.1.5.1.(3)   |
| ULC            | CAN/ULC-S508-02                | Rating and Fire Testing of Fire Extinguishers   | 2.1.5.1.(4)   |
| ULC            | CAN/ULC-S512-M87               | Halogenated Agent Hand and Wheeled Fire Extinguishers   | 2.1.5.1.(3)   |
| ULC            | CAN/ULC-S536-04                | Inspection and Testing of Fire Alarm Systems  | 6.3.1.2.(1)   |
| ULC            | CAN/ULC-S552-02                | Maintenance and Testing of Smoke Alarms   | 6.7.1.1.(1)   |
| ULC            | CAN/ULC-S554-05                | Water Based Agent Fire Extinguishers  | 2.1.5.1.(3)   |
| ULC            | CAN/ULC-S561-03                | Installation and Services for Fire Signal Receiving Centres and Systems                                 | 6.3.1.3.(1)   |
| ULC            | CAN/ULC-S566-05                | Halocarbon Clean Agent Fire Extinguishers   | 2.1.5.1.(3)   |
| ULC            | CAN/ULC-S601-07                | Shop Fabricated Steel Aboveground Tanks for Flammable and Combustible Liquids                           | 4.3.1.2.(1)<br>4.3.3.2.(1)                                |
| ULC            | ULC-S601(A)-2001               | Refurbishing of Steel Aboveground Horizontal Tanks for Flammable and Combustible Liquids                | 4.3.1.10.(2)  |
| ULC            | CAN/ULC-S602-07                | Aboveground Steel Tanks for Fuel Oil and Lubricating Oil  | 4.3.1.2.(1)   |
| ULC            | ULC-S603-00                    | Steel Underground Tanks for Flammable and Combustible Liquids   | 4.3.1.2.(1)<br>4.4.3.2.(4)                                |
| ULC            | ULC-S603(A)-2001               | Refurbishing of Steel Underground Tanks for Flammable and Combustible Liquids                           | 4.3.1.10.(3)  |
| ULC            | CAN/ULC-S603.1-11              | External Corrosion Protection Systems for Steel Underground Tanks for Flammable and Combustible Liquids | 4.3.1.2.(1)<br>4.3.8.6.(1)<br>4.3.10.1.(1)<br>4.5.3.1.(1) |
| ULC            | CAN/ULC-S612-07                | Hose and Hose Assemblies for Flammable and Combustible Liquids  | 4.6.5.1.(1)   |
| ULC            | ULC-S615-98                    | Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids                              | 4.3.1.2.(1)<br>4.3.8.6.(2)<br>4.4.3.2.(4)                 |
| ULC            | ULC-S615(A)-2002               | Refurbishing of Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids              | 4.3.1.10.(3)  |
| ULC            | CAN/ULC-S620-07                | Hose Nozzle Valves for Flammable and Combustible Liquids  | 4.5.7.1.(2)<br>4.6.5.2.(1)                                |
| ULC            | ULC-S630(A)-2001               | Refurbishing of Steel Aboveground Vertical Tanks for Flammable and Combustible Liquids                  | 4.3.1.10.(2)  |
| ULC            | CAN/ULC-S633-99                | Flexible Underground Hose Connectors for Flammable and Combustible Liquids                              | 4.5.6.14.(2)  |
| ULC            | CAN/ULC-S642-07                | Compounds and Tapes for Threaded Pipe Joints  | 4.5.5.1.(1)   |
| ULC            | ULC-S644-00                    | Emergency Breakaway Fittings for Flammable and Combustible Liquids                                      | 4.6.5.2.(4)   |
| ULC            | ULC-S651-07                    | Emergency Valves for Flammable and Combustible Liquids  | 4.5.7.1.(3)<br>4.6.6.3.(1)                                |
| ULC            | CAN/ULC-S652-08                | Tank Assemblies for the Collection, Storage and Removal of Used Oil                                     | 4.3.1.2.(1)   |
| ULC            | CAN/ULC-S653-06                | Aboveground Steel Contained Tank Assemblies for Flammable and Combustible Liquids                       | 4.3.1.2.(1)   |
| ULC            | ULC-S655-98                    | Aboveground Protected Tank Assemblies for Flammable and Combustible Liquids                             | 4.3.1.2.(1)<br>4.3.2.1.(7)<br>4.6.2.1.(3)                 |
| ULC            | CAN/ULC-S660-08                | Nonmetallic Underground Piping for Flammable and Combustible Liquids                                    | 4.5.2.1.(3)<br>4.5.6.14.(2)                               |
| ULC            | ULC-S661-10                    | Overfill Protection Devices for Flammable and Combustible Liquid Storage Tanks                          | 4.3.1.8.(1)<br>4.3.1.8.(2)                                |

Table 1.3.1.2. (Continued)

| Issuing Agency | Document Number <sup>(1)</sup> | Title of Document <sup>(2)</sup>   | Code Reference   |
|----------------|--------------------------------|--|--|
| ULC            | ULC/ORD-C30-1995               | Safety Containers  | 4.1.5.8.(2)<br>4.2.3.1.(1)<br>4.2.6.4.(1)<br>5.5.5.2.(2) |
| ULC            | ULC/ORD-C58.19-1992            | Spill Containment Devices for Underground Flammable Liquid Storage Tanks                 | 4.3.9.2.(2)  |
| ULC            | ULC/ORD-C107.4                 | Ducted Flexible Underground Piping Systems for Flammable and Combustible Liquids         | 4.5.2.1.(3)  |
| ULC            | ULC/ORD-C107.7                 | Glass Fibre Reinforced Plastic Pipe and Fittings for Flammable and Combustible Liquids   | 4.5.2.1.(3)  |
| ULC            | ULC/ORD-C107.12-1992           | Line Leak Detection Devices for Flammable Liquid Piping                                  | 4.4.2.1.(11)<br>4.4.3.4.(2)<br>4.4.4.2.(1)               |
| ULC            | ULC/ORD-C107.19                | Secondary Containment of Underground Piping for Flammable and Combustible Liquids        | 4.5.2.1.(3)  |
| ULC            | ULC/ORD-C107.21-1992           | Under-Dispenser Sumps  | 4.3.9.2.(1)<br>4.6.3.2.(1)                               |
| ULC            | ULC/ORD-C142.5-1992            | Concrete Encased Steel Aboveground Tank Assemblies for Flammable and Combustible Liquids | 4.3.1.2.(1)  |
| ULC            | ULC/ORD-C536-1998              | Flexible Metallic Hose   | 4.5.6.14.(2)   |
| ULC            | ULC/ORD-C558-2009              | Guide for the Investigation of Industrial Trucks, Internal Combustion Engine-Powered     | 3.1.3.1.(2)  |
| ULC            | ULC/ORD-C583-2009              | Guide for the Investigation of Electric Battery Powered Industrial Trucks                | 3.1.3.1.(3)  |
| ULC            | ULC/ORD-C627.1-2008            | Unvented Ethyl Alcohol Fuel Burning Decorative Appliances                                | 2.4.10.1.(1)   |
| ULC            | ULC/ORD-C842-84                | Guide for the Investigation of Valves for Flammable and Combustible Liquids              | 4.5.7.1.(1)  |
| ULC            | ULC/ORD-C971                   | Nonmetallic Underground Piping for Flammable and Combustible Liquids                     | 4.5.2.1.(3)  |
| ULC            | ULC/ORD-C1275-84               | Storage Cabinets for Flammable Liquid Containers   | 4.2.10.5.(1)   |

**Notes to Table 1.3.1.2.:**

- (1) Some documents may have been reaffirmed or reapproved. Check with the applicable issuing agency for up-to-date information.
- (2) Some titles have been abridged to omit superfluous wording.
- (3) Code reference is in Division A.
- (4) Code reference is in Division C.
- (5) Notwithstanding the effective date stated in Sentence 1.3.1.1.(1), the 2013 edition of NFPA 13 is referenced as it better meets the intent of the Code.

**1.3.2. Organizations****1.3.2.1. Abbreviations of Proper Names**

**1)** The abbreviations of proper names in this Code shall have the meanings assigned to them in this Article (the appropriate addresses of the organizations are shown in brackets).

- ACGIH ..... American Conference of Governmental Industrial Hygienists  
(1330 Kemper Meadow Drive, Cincinnati, Ohio 45240-1634 U.S.A.;  
www.acgih.org)
- API ..... American Petroleum Institute (1220 L Street NW, Washington, D.C.  
20005-4070 U.S.A.; www.api.org)
- ASME ..... American Society of Mechanical Engineers (Three Park Avenue,  
New York, New York 10016-5990 U.S.A.; www.asme.org)
- ASTM ..... American Society for Testing and Materials International (100 Barr  
Harbor Drive, West Conshohocken, Pennsylvania 19428-2959 U.S.A.;  
www.astm.org)



# **Part 2**

## **Building and Occupant Fire Safety**

### **Section 2.1. General**

#### **2.1.1. Scope**

##### **2.1.1.1. Application**

**1)** This Part provides for the safety of the occupants in existing *buildings*, the elimination or control of fire hazards in and around *buildings*, the installation and maintenance of certain life safety systems in *buildings*, the installation and maintenance of posted signs and information, and the establishing of a fire safety plan in those *occupancies* where it is considered necessary.

#### **2.1.2. Classification of Buildings**

##### **2.1.2.1. Classification**

**1)** For the purpose of applying this Code, every *building* or part thereof shall be classified according to its *major occupancy* in conformance with the requirements in force at the time of construction or alteration.

##### **2.1.2.2. Hazardous Activities**

**1)** Activities that create a hazard and that are not allowed for in the original design shall not be carried out in a *building* unless provisions are made to control the hazard in conformance with this Code. (See Appendix A.)

**2)** No *major occupancy* of Group F, Division 1 shall be contained within a *building* with any *occupancy* classified as an *assembly, care, treatment, detention or residential occupancy*.

#### **2.1.3. Fire Safety Installations**

##### **2.1.3.1. Fire Alarm, Standpipe and Sprinkler Systems**

**1)** Fire alarm, standpipe and sprinkler systems shall conform to the requirements in force at the time of construction or alteration or, if applicable, to the more stringent provisions applicable to certain *buildings* under Section IV of Chapter VIII of the Safety Code. (See Appendix B.)

**2)** When changes in the use of *buildings* or *floor areas* 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.

##### **2.1.3.2. Voice Communication Systems**

**1)** A voice communications system or systems integrated with the general fire alarm system shall be provided in *buildings* in conformance with the requirements in force at the time of construction or alteration.

**2.1.3.3. Smoke Alarms**

- 1) *Smoke alarms* shall conform to the requirements in force at the time of construction, or, if applicable, to the more stringent provisions applicable to certain *buildings* under Section IV of Chapter VIII of the Safety Code. (See Appendix B.)
- 2) Every *smoke alarm* shall be replaced 10 years after the date of manufacture indicated on the cover. If no date of manufacture is indicated, the *smoke alarm* shall be replaced without delay.

**2.1.3.4. Protection of Combustible Sprinkler Piping**

- 1) Materials installed to protect combustible sprinkler piping, in conformance with the standard in force at the time of construction or alteration, shall be maintained in accordance with the provisions of the same standard used for their installation. (See Appendix A.)

**2.1.3.5. Special Fire Suppression Systems**

- 1) A fire suppression system shall conform to one of the standards listed in Sentences (3) and (4).
- 2) If a water-based fire suppression system is not compatible with the fire suppression requirements for certain types of *dangerous goods*, a special fire suppression system conforming to one of the standards listed in Sentence (3) is permitted to be installed in lieu of a water-based system.
- 3) The design and installation of a special fire suppression system that is not water-based shall conform to one of the following standards:
  - a) NFPA 11, "Low-, Medium-, and High-Expansion Foam,"
  - b) NFPA 12, "Carbon Dioxide Extinguishing Systems,"
  - c) NFPA 12A, "Halon 1301 Fire Extinguishing Systems" (see Appendix A),
  - d) NFPA 12B, "Halon 1211 Fire Extinguishing Systems" (see Appendix A),
  - e) NFPA 17, "Dry Chemical Extinguishing Systems," or
  - f) NFPA 17A, "Wet Chemical Extinguishing Systems."
- 4) The design and installation of a water-based special fire suppression system shall conform to one of the following standards:
  - a) NFPA 15, "Water Spray Fixed Systems for Fire Protection," or
  - b) NFPA 16, "Installation of Foam-Water Sprinkler and Foam-Water Spray Systems."
- 5) Wetting agents used in conjunction with water-based fire suppression systems shall conform to NFPA 18, "Wetting Agents."
- 6) A hazard for which a fire suppression system has been designed is not permitted to be increased unless the level of fire protection is also commensurately increased.
- 7) Operating and maintenance instructions for a special fire suppression system shall be posted in proximity to the equipment and, if manual controls are provided, shall be posted near the manual controls.
- 8) Valves and controls for a special fire suppression system shall be clearly marked to indicate their function and shall be accessible at all times.

**2.1.3.6. Design and Installation of Automatic Sprinkler Systems**

- 1) Except as otherwise provided in this Code, an automatic sprinkler system required by this Code shall be designed and installed in conformance with the requirements in force at the time of construction or alteration or, if applicable, to the more stringent provisions applicable to certain buildings under section IV of Chapter VIII of the Safety Code, as stated in Appendix B. (See Appendix A.)

**2.1.3.7. Inspection, Maintenance and Testing of Fire Safety Devices**

(See Appendix A.)

- 1) The inspection, maintenance and testing of fire safety devices shall be conducted in accordance with this Code.

# Appendix A

## Explanatory Material

### **A-1.1.2.1.(1) Objectives and Functional Statements Attributed to Acceptable**

**Solutions.** The objectives and functional statements attributed to each Code provision are shown in tables at the end of each Part in Division B.

Many provisions in Division B serve as modifiers of or pointers to other provisions or serve other clarification or explanatory purposes. In most cases, no objectives and functional statements have been attributed to such provisions, which therefore do not appear in the above-mentioned tables.

For provisions that serve as modifiers of or pointers to other referenced provisions and that do not have any objectives and functional statements attributed to them, the objectives and functional statements that should be used are those attributed to the provisions they reference.

**A-1.3.1.2.(1)** Where documents are referenced in the Appendices of this Code, they shall be the editions designated in Table A-1.3.1.2.(1).

**Table A-1.3.1.2.(1)**  
**Documents Referenced in the Appendices of the National Fire Code of Canada 2010**

| Issuing Agency | Document Number <sup>(1)</sup> | Title of Document <sup>(2)</sup>  | Code Reference                     |
|----------------|--------------------------------|---|------------------------------------|
| ACGIH          | 27th Edition                   | Industrial Ventilation: A Manual of Recommended Practice for Design   | A-3.2.7.3.(1)(b)                   |
| API            | 1104-2005                      | Welding of Pipelines and Related Facilities   | A-4.5.10.7.(6)                     |
| API            | RP 1604-1996                   | Closure of Underground Petroleum Storage Tanks  | A-4.3.16.1.(1)                     |
| API            | 2000-2009                      | Venting Atmospheric and Low-Pressure Storage Tanks: Nonrefrigerated and Refrigerated  | A-4.3.13.10.(1)                    |
| API            | RP 2003-2008                   | Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents   | A-4.7.4.5.                         |
| API            | RP 2009-2002                   | Safe Welding and Cutting Practices in Refineries, Gasoline Plants, and Petrochemical Industries                                   | A-5.2.3.4.(1)(b)                   |
| API            | 2015-2001                      | Safe Entry and Cleaning of Petroleum Storage Tanks, Planning and Managing Tank Entry From Decommissioning Through Recommissioning | A-5.2.3.4.(1)(b)                   |
| API            | RP 2200-2010                   | Repairing Crude Oil, Liquefied Petroleum Gas, and Products Pipelines  | A-4.5.10.7.(6)                     |
| API            | RP 2201-2003                   | Safe Hot Tapping Practices in the Petroleum and Petrochemical Industries  | A-4.5.10.7.(6)<br>A-5.2.3.4.(1)(b) |
| API            | RP 2207-2007                   | Preparing Tank Bottoms for Hot Work   | A-5.2.3.4.(1)(b)                   |
| ARPM           | IP-2-2009                      | Hose Handbook, Eighth Edition   | A-4.8.8.1.(1)(a)                   |
| ASTM           | D 5-06e1                       | Penetration of Bituminous Materials   | A-4.1.3.1.                         |
| ASTM           | D 3278-96                      | Flash Point of Liquids by Small Scale Closed-Cup Apparatus  | A-4.1.3.1.                         |
| ASTM           | D 4359-90                      | Determining Whether a Material Is a Liquid or a Solid   | A-4.1.3.1.                         |

This Appendix is included for explanatory purposes only and does not form part of the requirements. The numbers that introduce each Appendix Note correspond to the applicable requirements in this Division.

**Table A-1.3.1.2.(1) (Continued)**

| Issuing Agency | Document Number <sup>(1)</sup>  | Title of Document <sup>(2)</sup>  | Code Reference   |
|----------------|---------------------------------|---|--|
| CCBFC          | NRCC 53301                      | National Building Code of Canada 2010   | A-A-1.1.1.1.(1) <sup>(3)</sup><br>A-A-1.4.1.2.(1) <sup>(3)</sup><br>A-2.1.3.6.(1)<br>A-2.7.1.3.(1)<br>A-2.7.1.4.(2)<br>A-2.7.3.1.(1)<br>A-3.2.2.3.(5)<br>A-3.2.7.9.(1)<br>A-3.2.7.12.(3)<br>A-3.2.9.2.(5)<br>A-4.1.7.1.(1)<br>A-4.2.7.5.(2)<br>A-5.6.1.6.<br>A-5.6.1.8.<br>A-6.1.1.2.(1) |
| CCBFC          | NRCC 53302                      | National Plumbing Code of Canada 2010   | A-4.1.6.2.(2)  |
| CCME           | PN 1326                         | Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum Products and Allied Petroleum Products | A-4.3.16.1.(1)<br>A-4.4.2.1.(3)  |
| CGA            | P-1 (2008)                      | Safe Handling of Compressed Gases in Containers   | A-3.1.1.4.(1)(a)   |
| CSA            | CAN/CSA-6.19-01                 | Residential Carbon Monoxide Alarming Devices  | B-2.1.6.1.(1)  |
| CSA            | B139-09                         | Installation Code for Oil-Burning Equipment   | A-4.1.1.1.(3)(b)<br>A-4.3.13.4.(1)(b)  |
| CSA            | C22.1-12                        | Canadian Electrical Code, Part I  | A-4.10.3.3.(1)<br>A-5.1.2.1.(1)  |
| CSA            | C282-09                         | Emergency Electrical Power Supply for Buildings   | A-6.5.1.1.(2)  |
| CSA            | Z32-09                          | Electrical Safety and Essential Electrical Systems in Health Care Facilities  | A-6.5.1.1.(2)  |
| CSA            | PLUS 2203-01                    | Hazardous Locations: A Guide for the Design, Testing, Construction, and Installation of Equipment in Explosive Atmospheres                      | A-4.1.4.1.(1)  |
| EPA            | 510-B-93-004                    | Doing Inventory Control Right for Underground Storage Tanks   | A-4.4.2.1.(2)  |
| EPA            | 510-B-95-009                    | Introduction to Statistical Inventory Reconciliation For Underground Storage Tanks  | A-4.4.2.1.(4)  |
| EPA            | 530/UST-90/007                  | Evaluating Leak Detection Methods: Statistical Inventory Reconciliation Methods (SIR)   | A-4.4.2.1.(4)  |
| EPA            | 530/UST-90/008                  | Evaluating Leak Detection Methods: Vapor-Phase Out-of-Tank Product Detectors  | A-4.4.2.1.(3)  |
| EPA            | 530/UST-90/009                  | Evaluating Leak Detection Methods: Liquid-Phase Out-of-Tank Product Detectors   | A-4.4.2.1.(3)  |
| FM Global      | Data Sheet 7-50 (2012)          | Compressed Gases in Cylinders   | A-3.2.8.2.(2)  |
| FM Global      | Data Sheet 7-83 (2012)          | Drainage and Containment Systems for Ignitable Liquids  | A-4.1.6.1.(1)  |
| HC             | Hazardous Products Act, Part II | Workplace Hazardous Materials Information System (WHMIS)  | A-3.2.7.6.(2)<br>A-3.2.7.13.(1)  |
| HC             | SOR/88-66                       | Controlled Products Regulations   | A-3.2.5.2.(1)  |
| HC             | SOR/2001-269                    | Consumer Chemicals and Containers Regulations, 2001   | A-3.2.5.2.(1)  |
| NFPA           | 2008 Edition                    | Fire Protection Handbook, Twentieth Edition   | A-2.4.1.3.(1)  |
| NFPA           | 12A-2009                        | Halon 1301 Fire Extinguishing Systems   | A-2.1.3.5.(3)(c) and (d)   |
| NFPA           | 12B-1990                        | Halon 1211 Fire Extinguishing Systems   | A-2.1.3.5.(3)(c) and (d)   |
| NFPA           | 13-2013 <sup>(4)</sup>          | Installation of Sprinkler Systems   | A-2.1.3.6.(1)<br>A-3.2.1.1.(1)(a)<br>A-3.2.2.4.(3)<br>A-3.2.3.3.(2)  |
| NFPA           | 15-2012                         | Water Spray Fixed Systems for Fire Protection   | A-4.1.6.1.(1)  |

**Table A-1.3.1.2.(1) (Continued)**

| Issuing Agency | Document Number <sup>(1)</sup> | Title of Document <sup>(2)</sup>   | Code Reference   |
|----------------|--------------------------------|--|--|
| NFPA           | 30-2012                        | Flammable and Combustible Liquids Code   | A-4.1.1.1.(2)<br>A-4.1.4.1.(1)<br>A-4.1.6.1.(1)<br>A-4.2.7.6.(1)<br>A-4.3.16.1.(1) |
| NFPA           | 30B-2011                       | Manufacture and Storage of Aerosol Products  | A-3.2.5.2.(1)  |
| NFPA           | 36-2009                        | Solvent Extraction Plants  | A-4.1.1.1.(2)  |
| NFPA           | 45-2011                        | Fire Protection for Laboratories Using Chemicals   | A-5.5.2.2.(2)  |
| NFPA           | 55-2010                        | Compressed Gases and Cryogenic Fluids Code   | A-3.1.1.4.   |
| NFPA           | 61-2008                        | Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities   | A-5.3.1.3.(2)  |
| NFPA           | 80A-2012                       | Protection of Buildings from Exterior Fire Exposures   | A-2.4.1.1.(6)  |
| NFPA           | 91-2010                        | Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids   | A-5.3.1.3.(2)  |
| NFPA           | 120-2010                       | Fire Prevention and Control in Coal Mines  | A-5.3.1.3.(2)  |
| NFPA           | 326-2010                       | Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair  | A-5.6.1.11.(4)   |
| NFPA           | 484-2012                       | Combustible Metals   | A-5.3.1.3.(2)  |
| NFPA           | 497-2012                       | Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas | A-4.1.4.1.(1)  |
| NFPA           | 654-2006                       | Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids                            | A-5.3.1.3.(2)  |
| NFPA           | 655-2012                       | Prevention of Sulfur Fires and Explosions  | A-5.3.1.3.(2)  |
| NFPA           | 664-2012                       | Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities   | A-5.3.1.3.(2)  |
| NFPA           | 705-2009                       | Field Flame Test for Textiles and Films  | A-2.3.2.2.(1)  |
| NRCCan         | R.S.C., 1985, c. E-17          | Explosives Act   | A-3.2.9.1.(1)  |
| OCIMF          | 2009                           | Guide to Manufacturing and Purchasing Hoses for Offshore Moorings, 5th Edition   | A-4.8.8.1.(1)(a)   |
| SFPE           | 4th Edition                    | Handbook of Fire Protection Engineering  | A-4.1.6.1.(1)  |
| TC             | SOR/2001-286                   | Transportation of Dangerous Goods Regulations (TDGR)   | A-3.2.7.1.<br>A-3.2.7.6.(2)<br>A-4.1.2.1.<br>A-4.2.2.3.(2)                         |
| TC             | SOR/2007-86                    | Regulations for the Prevention of Pollution from Ships and for Dangerous Chemicals   | A-4.8.8.1.(1)(a)   |
| ULC            | CAN/ULC-S524                   | Installation of Fire Alarm Systems   | B-2.1.3.1.(1)  |
| ULC            | CAN/ULC-S531                   | Smoke Alarms   | B-2.1.3.3.(1)  |
| ULC            | CAN/ULC-S553                   | Installation of Smoke Alarms   | B-2.1.3.3.(1)  |
| ULC            | ULC/ORD-C58.4-2005             | Double Containment Fibre Reinforced Plastic Linings for Flammable and Combustible Liquid Storage Tanks   | A-4.3.1.10.(3)   |
| ULC            | ULC/ORD-C58.12-1992            | Leak Detection Devices (Volumetric Type) for Underground Flammable Liquid Storage Tanks  | A-4.4.2.1.(5)<br>A-4.4.2.1.(7)<br>A-4.4.2.1.(10)(a)                                |
| ULC            | ULC/ORD-C58.14-1992            | Non-Volumetric Leak Detection Devices for Underground Flammable Liquid Storage Tanks   | A-4.4.2.1.(7)<br>A-4.4.2.1.(10)(a)   |
| ULC            | ULC/ORD-C410A-1994             | Absorbents for Flammable and Combustible Liquids   | A-4.1.6.3.(3)(b)   |

**Notes to Table A-1.3.1.2.(1):**

- (1) Some documents may have been reaffirmed or reapproved. Check with the applicable issuing agency for up-to-date information.
- (2) Some titles have been abridged to omit superfluous wording.
- (3) Code reference is in Division A.
- (4) Notwithstanding the effective date stated in Sentence 1.3.1.1.(1), the 2013 edition of NFPA 13 is referenced as it better meets the intent of the Code.

**A-2.1.2.2.(1)** Arena-type buildings are often used for events such as community dances, rallies and trade shows. These events may increase the occupant and fuel loads beyond that for which the space was designed. To ensure safety during such events, additional egress facilities may be required to compensate for the additional occupant load and, in some cases, additional fire suppression measures may be required to compensate for the increased fuel load.

Large public corridors in mercantile occupancies are also used on a temporary basis for community activities, merchandising and for special displays. In these cases, additional egress facilities and fire suppression may be needed, depending on the increase in hazard.

**A-2.1.3.4.(1)** Editions of the NBC prior to 2005 permitted the use of combustible sprinkler piping for wet pipe sprinkler systems in residential and light-hazard occupancies on condition that the piping was protected from exposure to a fire in the space beneath. Article 2.1.3.4. requires that the necessary protection of the piping be maintained so that the performance of the sprinkler system will not be compromised in the event of fire. Some of the conditions included restricting use of the piping to light-hazard occupancies, the piping must be a wet system, use of steel suspension grids and correct tile weight, and integrity of the fire protection covering.

**A-2.1.3.5.(3)(c) and (d)** Concern over the impact of halons on the environment is resulting in changes to the regulations of various agencies that affect their use and release to the atmosphere and their reduction, recycling and eventual phase-out as fire extinguishment agents. Standards referenced in the NFC may not reflect the current status of requirements developed by certain agencies regarding the installation, use and testing of fire suppression systems that employ halons.

NFPA 12A, "Halon 1301 Fire Extinguishing Systems," and NFPA 12B, "Halon 1211 Fire Extinguishing Systems," are obsolete. The installation of new halon fire suppression systems is prohibited following the international ban on halon gas production. However, both standards are still relevant to the maintenance, decommissioning and recycling of existing halon fire suppression systems.

**A-2.1.3.6.(1)** This provision is intended to direct the Code user primarily to Subsection 3.2.5. of Division B of the NBC, which specifies the appropriate standard for the design and installation of automatic sprinkler systems, i.e. NFPA 13, and provides several exceptions and supplementary requirements. On occasion, other provisions in the NBC may also apply. However, where a specific hazard is not addressed by the NBC, such as highly piled storage or the storage of flammable and combustible liquids or rubber tires, the NFC directly references the applicable NFPA standards that contain design criteria for the sprinkler system required.

**A-2.1.3.7.** This Code requires the installation of several fire safety devices for the control of fire hazards. The inspection, maintenance and testing requirements for many of these devices are referenced in the applicable Articles. However, several Sections of the Code do not include such references for certain fire safety devices, examples of which include, but are not limited to:

- ventilation system interlocks and associated audible alarms for rooms or enclosed spaces containing flammable and combustible liquids (e.g. Subsection 4.1.7.)
- vapour detection alarm systems for rooms or enclosed spaces containing flammable and combustible liquids (e.g. Subsection 4.1.7.)
- bonding and grounding systems for flammable and combustible liquid handling processes (e.g. Subsection 4.1.8.)
- fill pipe backflow prevention systems for aboveground storage tanks for flammable and combustible liquids (e.g. Subsection 4.3.1.)
- leak detection monitoring devices for aboveground storage tanks for flammable and combustible liquids (e.g. Section 4.4.).

# **Appendix B**

## **More Stringent Provisions Applicable to Certain Buildings**

**B-2.1.3.1.(1)** The more stringent provisions applicable to certain buildings are provided for in Division IV (sections 346 to 369) of Chapter VIII of the Safety Code and cover residential occupancies and care and treatment occupancy. Sections 346 to 352 cover fire alarm and detection systems.

**346.** In buildings constructed or altered prior to 7 November 2000, the fire alarm and detection system must conform to the requirements of NBC 1995 am. Québec, except those of Sentence 3.2.4.19.(5).

**346.1.** Despite section 346, a private seniors' residence must be equipped with a fire alarm and detection system, except:

- (1) a single-family type residential occupancy for the elderly;
- (2) a residential board and care occupancy that lodges no more than 9 persons and whose building consists of a dwelling unit having a building height of no more than 2 storeys.

**347.** In a residential occupancy for the elderly and a residential board and care occupancy designed in compliance with Article 3.1.2.5. of NBC 1995 am. Québec or 2005 am. Québec, a single-signal fire alarm and detection system must be connected to a fire department; the connection must be designed to ensure that, when the fire alarm is triggered, the fire department is alerted, in accordance with NBC 1995 am. Québec.

**348.** In a residential board and care occupancy designed in compliance with Article 3.1.2.5. of NBC 1995 am. Québec or 2005 am. Québec, the fire alarm and detection system may be a single-signal or dual-signal system.

**349.** In a residential occupancy for the elderly equipped with a fire alarm system, smoke detectors must be installed in each bedroom that is not part of a dwelling unit.

**350.** In a residential occupancy for the elderly, when a sound signal device must be added to a bedroom or dwelling unit, it must include a visual signal device having a power level of at least 110 cd.

**351.** In a dwelling unit and in a hotel or motel suite comprising several rooms, the acoustic pressure level of a fire alarm signal must be at least 85 dBA near the entry door, once the door is closed.

In the bedrooms of a residential occupancy, other than in the bedrooms of a dwelling unit, the standard is 75 dBA.

**352.** The provisions of Sentences 3.2.4.20.(10) and (11) NBC 1995 am. Québec do not apply if the sound signal devices are connected to a class "A" circuit according to CAN/ULC-S524, "Installation of Fire Alarm Systems."

The provisions come into force on 18 March 2016.

**B-2.1.3.3.(1)** The more stringent provisions applicable to certain buildings are provided for in Division IV (sections 346 to 387) of Chapter VIII of the Safety Code and cover residential occupancies and care and treatment occupancy. Sections 353 to 358 cover smoke alarms.

**353.** Smoke alarms conforming to CAN/ULC-S531, "Smoke Alarms," must be installed

- (1) in every dwelling unit,
  - (a) on each storey, and
  - (b) on each storey where bedrooms are located, the smoke alarms must be installed between the bedrooms and the remainder of the storey, except if the bedrooms are accessed by a corridor, in which case the smoke alarms must be installed in the corridor,
- (2) in each sleeping room that is not part of a dwelling unit, except in care or detention occupancies, which must be equipped with a fire alarm system,
- (3) in each corridor and each shared rest or activity area in a residential occupancy for the elderly that is not equipped with a fire alarm and detection system,
- (4) in sleeping rooms and in the corridors of a residential board and care occupancy designed in compliance with Article 3.1.2.5. of NBC 1995 am. Québec or 2005 am. Québec, if the bedrooms are not equipped with smoke detectors,

- (5) in each sleeping room, corridor and shared rest or activity area of a single-family type residential occupancy for the elderly.

**354.** Subject to the more stringent requirements of sections 355 and 356, the smoke alarms required under section 353 must, when required by the standard in force at the time of construction or alteration of the building,

- (1) be installed by permanent connections to an electrical circuit and have no disconnect switch between the overcurrent device and the smoke alarm, and
- (2) be wired so that the activation of one alarm will automatically cause all alarms within the dwelling unit to sound.

**355.** The smoke alarms required under paragraphs 3 to 5 of section 353 must

- (1) be installed by permanent connections to an electrical circuit and have no disconnect switch between the overcurrent device and the smoke alarm,
- (2) be wired so that the activation of one alarm will automatically cause all alarms within the dwelling unit to sound, and
- (3) be wired so that the activation of one alarm in a building housing a residential occupancy for the elderly of the rooming house type will automatically cause all the alarms to sound.

In addition, the smoke alarms required under paragraph 4 of section 353 must

- (1) be of a photoelectric type,
- (2) be interconnected and connected to visual signal devices that allow the personnel assigned to the sleeping rooms to see from where the smoke alarm is triggered, and
- (3) be connected to the fire department as provided for in NBC 1995 am. Québec.

**356.** Smoke alarms must be installed on or close to the ceiling in accordance with CAN/ULC-S553, "Installation of Smoke Alarms."

**357.** A manual device may be installed at a specific point in the electrical circuit for the smoke alarm in a dwelling unit to shut off the sound signal emitted by the smoke alarm for no more than 10 minutes; after that time, the smoke alarm must re-activate.

**358.** Every smoke alarm must be replaced 10 years after the date of manufacture indicated on the cover. If no date of manufacture is indicated, the smoke alarm is considered to be non-compliant and must be replaced without delay.

The provisions of 353 to 357 come into force on 18 March 2014.

**B-2.1.3.6.** The more stringent provisions applicable to certain buildings are provided for in Division IV (sections 369.1 and 369.2) of Chapter VIII of the Safety Code and cover private seniors' residences.

Sections 369.1 and 369.2 cover the installation of sprinkler systems:

**369.1.** A building housing a private seniors's residence, constructed or altered in compliance with an applicable standard prior to NBC 2010 am. Québec, must be completely sprinklered, except:

- (1) a single-family type residential occupancy for the elderly, provided that each storey accessible to the persons lodged in the occupancy is served by 2 means of egress, one of which leads directly to the exterior;
- (2) a residential board and care occupancy that lodges no more than 9 persons and whose building consists of a dwelling unit having a building height of no more than 2 storeys, provided that each storey accessible to the persons lodged in the occupancy is served by 2 means of egress, one of which leads directly to the exterior and the other leads to another floor area and is separated from adjoining spaces by a fire separation;
- (3) a building housing solely a residential occupancy for the elderly having a building height of 1 storey, a building area no more than 600 m<sup>2</sup> and no more than 8 dwelling units, and in which no more than 16 persons lodge.

**369.2.** The sprinkler system required in section 369.1 must conform to the requirements of Section 3.2.5. of NBC 2005 am. Québec, but must be designed, constructed, installed and tested in accordance with NFPA Standard 13, except a combustible concealed space no more than 450 mm high that does not have to be sprinklered.

Despite the foregoing, the following may be sprinklered in compliance with NFPA Standard 13D where the water supply capacity for the sprinkler system is not less than 30 minutes:

- (1) a single-family type residential occupancy for the elderly, provided that each storey accessible to the persons lodged in the occupancy, except the second storey, is served by 2 means of egress, one of which leads directly to the exterior;
- (2) a residential board and care occupancy that lodges no more than 9 persons and whose building consists of a dwelling unit having a building height of no more than 2 storeys, provided that each storey accessible



to the persons lodged in the occupancy, except the second storey, is served by 2 means of egress, one of which leads directly to the exterior.

This section does not apply to a building which, on 2 December 2015, is completely sprinklered by a system installed in accordance with the standard applicable on the year of construction.

The provisions come into force on 2 December 2020.

**B-2.1.6.1.(1)** The more stringent provisions applicable to certain buildings are provided for in Division IV (sections 346 to 369) of Chapter VIII of the Safety Code and cover residential occupancies and care and treatment occupancy. Sections 359 and 360 cover carbon monoxide alarms.

**359.** A carbon monoxide alarm must be installed in every dwelling unit, residential occupancy for the elderly or residential board and care occupancy designed in compliance with Article 3.1.2.5. of NBC 1995 am. Québec or 2005 am. Québec that contains

- (1) a heating appliance, or
- (2) direct access to an indoor parking garage.

**360.** Carbon monoxide alarms must

- (1) conform to CAN/CSA-6.19, "Residential Carbon Monoxide Alarming Devices,"
- (2) be equipped with an integrated alarm that meets the audibility requirements of CAN/CSA-6.19, "Residential Carbon Monoxide Alarming Devices,"
- (3) be installed according to the manufacturer's recommendations.

The provisions come into force on 18 March 2014.

**B-2.2.1.1.** The most stringent provisions applicable to certain buildings are provided for in Division IV (sections 346 to 369) of Chapter VIII of the Safety Code and cover residential occupancies and care and treatment occupancy. Sections 361 to 365 cover fire separation.

**361.** In a building constructed or altered prior to 1 December 1976, the floors must constitute fire separations with a fire resistance rating of at least 30 minutes or meet the requirements of NBC 1980 am. Québec. The elements supporting the floors must also have a fire resistance rating of at least 30 minutes or meet the requirements of NBC 1980.

**362.** In a building constructed or altered prior to 25 May 1984, suites of residential occupancy must be isolated from the remainder of the building by fire separations in accordance with the requirements of Section 3.3. or with Part 9 of NBC 1980 am. Québec. However, existing fire separations may have a fire resistance rating of only 30 minutes.

**363.** In a care occupancy constructed or altered prior to 25 May 1984, all or part of a floor area occupied by bedrooms must conform to Subsection 3.3.3. of NBC 1980 am. Québec.

**364.** Every opening in a fire separation of a building constructed or altered prior to 25 May 1984 must be equipped with a closure in accordance with the requirements of NBC 1980 am. Québec.

**365.** A building constructed or altered prior to 25 May 1984 and containing a floor that does not end with a vertical fire separation from the floor to the underside of the floor or roof and have a fire resistance rating at least equal to the rating for the floor on which it abuts must meet the requirements of NBC 1980 am. Québec.

The provisions come into force on 18 March 2018.

**B-2.2.2.1.(1)** The most stringent provisions applicable to certain buildings are provided for in Division IV (sections 346 to 369) of Chapter VIII of the Safety Code and cover residential occupancies and care and treatment occupancy. Sections 361 to 365 cover openings in fire separation.

**361.** In a building constructed or altered prior to 1 December 1976, the floors must constitute fire separations with a fire resistance rating of at least 30 minutes or meet the requirements of NBC 1980 am. Québec. The elements supporting the floors must also have a fire resistance rating of at least 30 minutes or meet the requirements of NBC 1980.

**362.** In a building constructed or altered prior to 25 May 1984, suites of residential occupancy must be isolated from the remainder of the building by fire separations in accordance with the requirements of Section 3.3. or with Part 9 of NBC 1980 am. Québec. However, existing fire separations may have a fire resistance rating of only 30 minutes.

**363.** In a care occupancy constructed or altered prior to 25 May 1984, all or part of a floor area occupied by bedrooms must conform to Subsection 3.3.3. of NBC 1980 am. Québec.

**364.** Every opening in a fire separation of a building constructed or altered prior to 25 May 1984 must be equipped with a closure in accordance with the requirements of NBC 1980 am. Québec.

**365.** A building constructed or altered prior to 25 May 1984 and containing a floor that does not end with a vertical fire separation from the floor to the underside of the floor or roof and have a fire resistance rating at least equal to the rating for the floor on which it abuts must meet the requirements of NBC 1980 am. Québec.

The provisions come into force on 18 March 2018.

**B-2.3.1.1.(1)** The most stringent provisions applicable to certain buildings are provided for in Division IV (sections 346 to 369) of Chapter VIII of the Safety Code and cover residential occupancies and care and treatment occupancy. Section 368 covers interior finish.

**368.** In a residential occupancy for the elderly constructed or altered prior to 25 May 1984, the flame-spread rating of the interior finish of the walls and ceilings must conform to NBC 1985 am. Québec.

The provision comes into force on 18 March 2014.

**B-2.7.1.1.(1)** The most stringent provisions applicable to certain buildings are provided for in Division IV (sections 346 to 369) of Chapter VIII of the Safety Code and cover residential occupancies and care and treatment occupancy. Section 369 covers means of egress.

**369.** In a single-family type residential occupancy for the elderly, when at least 1 bedroom is laid out to accommodate the elderly, the basement must have an exit opening directly to the exterior.

The provision comes into force on 18 March 2016.

**B-2.7.3.1.(1)** The most stringent provisions applicable to certain buildings are provided for in Division IV (sections 346 to 369) of Chapter VIII of the Safety Code and cover residential occupancies and care and treatment occupancy. Sections 366 and 367 cover emergency lighting.

**366.** Emergency lighting must conform to the requirements of the Construction Code, NBC 1995 am. Québec.

**367.** In a single-family type residential occupancy for the elderly, emergency lighting must be installed in corridors, stairways and means of egress and be designed to provide automatically electric power for 30 minutes if the normal source of power supply fails.

The provisions come into force on 18 March 2014.