

By-laws of the Town of Hampstead

BY-LAW N° 793

BY-LAW CONCERNING FIRE SAFETY

WHEREAS section 62 of the Municipal Powers Act (R.S.Q., chapter C-47.1);

WHEREAS the Risk Coverage Plan adopted by the Urban Agglomeration Council on December 18, 2008 (CG08 0657), namely program 2 entitled “*Réglementation municipale*”;

WHEREAS Notice of Motion of the present By-Law was given at the Regular Council Meeting held on January 16, 2012;

ON FEBRUARY 6TH, 2012, THE COUNCIL DECREES AS FOLLOWS:

CHAPTER I

INTERPRETATION AND APPLICATION

1. In this by-law, the following words shall have the following meanings:

“Authority having jurisdiction”: means the Director of the *Service de sécurité incendie de Montréal* or any employee authorized to act on his behalf.

“Care or detention occupancy (group B)”: means use of a building, or of a part thereof, for occupancy by residents who, as a result of their physical or mental state, require care or medical treatments, or for persons who, because of security measures not under their control, are incapable of finding shelter in case of danger.

“Code”: means the “Code national de prévention des incendies – Canada 2010 ” (CNRC 53303F) and the “National Fire Code of Canada – 2010” (NRCC 53303) published by the Canadian Commission on Building and Fire Codes of National Research Council Canada.

Any other word or expression defined in the Code carries, for the purposes of this by-law, the same meaning as in the Code.

2. The Code provisions apply with the amendments listed in the table of Appendix 1 of the present by-law, forming an integral part thereof.

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3. For the purposes of this by-law, a reference to the NBC constitutes a reference to the corresponding provision of the building construction by-law applicable at the time of the offence.
4. Where documents are referenced in this by-law, they shall be the editions designated in the Code.
5. The application of this by-law does not release any person from the obligation to abide by any other applicable law or by-law.
6. The director of the *Service de sécurité incendie de Montréal* or any employee authorized to act on his behalf is authorized to apply this by-law, issue a statement of offence under the Quebec Code of Penal Procedure and institute proceedings on behalf of the city.
7. Prior approval by the authority having jurisdiction is mandatory for the purposes of:
 - 1) carrying out activities which may pose a hazard not foreseen in the design of a building or facility, as mentioned in Sentence 2.1.2.2.1) of Division B of the Code;
 - 2) using alternative solutions as provided in Paragraph 1.2.1.1.1) b) of Division A of the Code.

The authority having jurisdiction grants permission where it is shown that the necessary safety measures are provided against risks to public safety and the built heritage. It may include any conditions necessary to achieve the level of performance required in Paragraph 1.2.1.1.1) b) of Division A of the Code. The authorization is conditional on compliance with those conditions.

The authorization obtained under this Article does not release any person from the obligation to abide by any other applicable law or by-law.

CHAPTER II PENAL PROVISIONS

8. Any person who contravenes this by-law is guilty of an offence and is liable:
 - 1) in the case of an individual:
 - a) for a first offence, to a fine of \$500 to \$1,000;

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b) for a subsequent offence, to a fine of \$1,000 to \$2,000;

2) in the case of a corporation:

a) for a first offence, to a fine of \$1,000 to \$2,000;

b) for a subsequent offence, to a fine of \$2,000 to \$4,000.

CHAPTER III

VARIOUS PROVISIONS

9. By-law No. 562 concerning Fire Safety and its amendments are repealed;

10. This By-Law will come into force in accordance with the law.

(s) William Steinberg
Dr. William Steinberg, Mayor

(s) Nathalie Lauzière
M^e Nathalie Lauzière, Town Clerk

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**TOWN OF HAMPSTEAD
BY-LAW NO. 793 CONCERNING FIRE SAFETY**

APPENDIX 1

Amendments to the National Fire Code – Canada 2010 (NRCC 53303)

	ARTICLES	MODIFICATIONS
	Division A, Part 1	
1	1.4.1.2 of Division A of the Code.	The definition of the following terms does not apply: “ <i>care occupancy</i> ”, “ <i>detention occupancy</i> ” and “ <i>treatment occupancy</i> ”.
	Division B, Part 2	
2	2.1.2.2. of Division B of the Code.	Sentence 2) is replaced by the following: “ 2) <i>No major occupancy of Group F, Division 1 shall be contained within a building with any occupancy classified as assembly, care or detention, or residential occupancy.</i> ”
3	2.1.3.3. of Division B of the Code.	Article 2.1.3.3. does not apply.
4	2.4.1.1. of Division B of the Code.	Sentence 1) is replaced by the following: “ 1) <i>Combustible waste or materials in and around buildings shall not be permitted to accumulate in quantities or locations that will constitute an undue fire hazard. (See Appendix A.)</i> ”
5	2.4.3.1. of Division B of the Code.	Article 2.4.3.1. does not apply.
6	2.4.3.3. of Division B of the Code.	Article 2.4.3.3. is replaced by the following: “ 2.4.3.3. Candles and devices having open flames 1) <i>Candles and devices having open flames shall be securely supported in noncombustible holders and shall be located or protected so as to prevent accidental contact of the flame with combustible materials.</i> ”
7	2.4.5.1. of Division B of the Code.	Article 2.4.5.1. does not apply.
8	2.5.1.4. of Division B of the Code.	Article 2.5.1.4. does not apply.
9	Section 2.6 of Division B of the Code.	Section 2.6 is amended by adding the following sub-section: “ 2.6.4. Appliances and equipment 2.6.4.1. Portable cooking equipment 1) <i>Portable cooking equipment fuelled with charcoal or other fuels shall not be permitted inside a building.</i> 2) <i>Charcoal-fuelled portable cooking equipment used shall be set on a noncombustible material.</i> 2.6.4.2. Heat-generating appliances 1) <i>During public gatherings, heat-generating appliances such as portable cooking appliances, and others, shall be installed and used in such a way as to avoid risks of injury.</i> 2.6.4.3. Ethyl alcohol fuel burning decorative appliances 1) <i>Ethyl alcohol fuel burning decorative appliances shall :</i> <i>a) Conform to ULC/ORD-C627.1-2008 “Unvented Ethyl Alcohol Fuel Burning Decorative Appliances”;</i> <i>b) Bear the certification tag; and</i>

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		<p>c) <i>Be installed and used:</i></p> <p>i) <i>in accordance with the manufacturer’s recommendations; and</i></p> <p>ii) <i>in such a manner that the flames of the appliance do not accidentally come in contact with flammable materials.</i></p> <p>2) <i>A portable extinguisher having a minimum rating of 5-B:C shall be located near every ethyl alcohol fuel burning decorative appliance. ”</i></p>
10	2.7.1.3. of Division B of the Code.	<p>Article 2.7.1.3. of Division B of the Code is replaced by the following:</p> <p>“2.7.1.3. Occupant load</p> <p>1) <i>The maximum permissible occupant load for any room shall be calculated:</i></p> <p>a) <i>Subject to Sentence (2), by counting the occupant load based on a net floor space of at least 0,4 m² per occupant; or</i></p> <p>b) <i>By using the capacity of egress based on the number of occupants for which the means of egress are provided if it is the lesser value.</i> <i>(See Appendix A)</i></p> <p>2) <i>Is excluded from the occupant load calculation for an assembly occupancy, the surface of accessory spaces, namely:</i></p> <p>a) <i>washrooms;</i></p> <p>b) <i>dressing rooms;</i></p> <p>c) <i>service areas;</i></p> <p>d) <i>traffic areas;</i></p> <p>e) <i>areas reserved for authorized personnel; and</i></p> <p>f) <i>required means of egress.</i></p> <p>3) <i>The number of seats provided in a room in an assembly occupancy shall not be superior to the number of occupants for which the means of egress are provided.</i></p> <p>4) <i>The authority having jurisdiction may require, in writing, the data and drafts attesting to the conformity with this article.</i></p> <p>5) <i>Is guilty of an offence, any person who allows, invites, permits or tolerates more occupants in a space than the maximum permissible occupant load. ”</i></p>
11	2.7.1.4. of Division B of the Code.	<p>Sentence (3) is replaced by the following:</p> <p>“3) <i>The posted sign required under Sentence (1) shall be made using the placard supplied by the authority having jurisdiction.</i></p> <p>4) <i>The maximum permitted occupant load shall not exceed that established by the authority having jurisdiction so as to avoid compromising public safety where the layout of a site creates a potentially hazardous condition;</i></p> <p>5) <i>Is guilty of an offence any person who allows, invites, permits or tolerates more occupants in a space than the maximum permissible occupant load.</i></p> <p>6) <i>In the case of an incompatibility between this article and Article 2.7.1.3., the more restrictive maximum permissible occupant load applies. ”</i></p>
12	2.8.2.1 of Division B of the Code.	<p>Article 2.8.2.1. is replaced by the following:</p>

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		<p>“2.8.2.1. Measures</p> <p>1) In buildings or areas described in Article 2.8.1.1., a fire safety plan conforming to this Section shall be prepared and shall include:</p> <ul style="list-style-type: none"> a) the emergency procedures to be used in case of fire, including <ul style="list-style-type: none"> i) sounding the fire alarm (see appendix A) ii) notifying the fire department; iii) instructing occupants on procedures to be followed when the fire alarm sounds; iv) evacuating occupants, including special provisions for persons requiring assistance (see Appendix A); v) confining, controlling and extinguishing the fire; b) the appointment and organization of designated supervisory staff to carry out fire safety duties; c) the training of supervisory staff and other occupants in their responsibilities for fire safety; d) documents, including diagrams, showing the type, location and operation of the building fire emergency systems; e) the holding of fire drills; f) the control of fire hazards in the building; and g) the inspection and maintenance of building facilities provided for the safety of occupants. (See Appendix A.) <p>2) In buildings described in Subsection 3.2.6. of the NBC and in buildings having an area greater than 10,000 m² or having a capacity greater than 500 occupants per floor, the drawings required under Clause 1) d) shall:</p> <ul style="list-style-type: none"> a) show a format of at most 279 mm in height by 432 mm in width; b) include the date of creation and that of their update; c) include: <ul style="list-style-type: none"> i) the site plan; ii) the stock plan for the storeys; iii) the plan for every storey that is not identical to the stock plan; iv) the sectional plan of elevators with the identification of every shaft, of the storeys serviced by the elevators, and of elevators destined for firefighter use; v) the sectional plan for stairwells with the identification of each one, including access to the roof and the identification of doors to regain access to floor areas; vi) the sectional plan of sandpipes, including faucets, valves, as well as the indication of the pressure available on every floor. (See Appendix A) <p>3) The fire safety plan shall be reviewed at intervals not greater than 12 months in order to ensure that it accounts for changes made to the use of the building and other characteristics.</p> <p>4) The fire safety plan shall be updated as needed and following every fire drill.”</p>
13	2.8.2.2. of Division B of the Code.	<p>Article 2.8.2.2. is replaced by the following:</p> <p>“2.8.2.2. Double signal alarm system</p>

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		<p><i>1) In a building provided with a double signal fire alarm, a sufficient number of supervisory staff shall be on duty to perform tasks outlined in the fire safety plan described in Clause 2.8.2.1. 1)a). (See Appendix A)”</i></p>
14	2.8.2.3. of Division B of the Code.	<p>Article 2.8.2.3. is replaced by the following:</p> <p>“2.8.2.3. Assembly Occupancies</p> <p><i>1) In Group A, Division 1 assembly occupancies containing more than 60 occupants, there shall be at least one supervisory staff member on duty in every room destined for spectators, carrying a portable lamp providing average lighting of at least 10 lx at 1.5 m, to perform the tasks outlined in the fire safety plan described in Clause 2.8.2.1. 1)a) whenever the building is open to the public.</i></p> <p><i>2) Whenever more than 300 people are assembled in a building within the scope of Group A, Division 1 assembly occupancies, instructions to occupants on evacuation means available shall be provided prior to the beginning of every event or activity.</i></p> <p><i>3) In assembly occupancies operating with reduced lighting, the normal lighting of the means of egress shall be restored upon sounding of the fire alarm.</i></p> <p><i>4) In assembly occupancies operating with sound levels likely to exceed 87 dBA, sources of sound amplification shall be interrupted when the fire alarm sounds.”</i></p>
15	2.8.2.4. of Division B of the Code	<p>Article 2.8.2.4. is amended by adding the following sentence:</p> <p>“2) The requirements of Sentence 1) apply to all buildings provided with one of the facilities within the scope of this article.”</p>
16	2.8.2.7. of Division B of the Code.	<p>Article 2.8.2.7. is replaced by the following:</p> <p>“2.8.2.7. Posting of Fire Emergency Procedures</p> <p><i>1) At least one copy of the fire emergency procedures shall be prominently posted, for the occupants of each floor area and shall be provided with a plan accounting for the actual geographic or physical orientation of the building and showing the location of exits, safety facilities and telephone numbers to reach the fire department. (See Appendix A)</i></p> <p><i>2) In every hotel and motel bedroom as well as that of any other type of building designed or converted to house boarders or lodgers, signs shall be posted for occupants, providing the fire safety rules, the information mentioned in paragraph (1) and the paths to travel to exits.</i></p> <p><i>3) Where a fire alarm system has been installed with no provisions to transmit a signal to the fire department, a sign shall be posted at each manually actuated signalling box requesting that the fire department be notified, and including the telephone number of that department.”</i></p>
17	2.9.3.3. of Division B of the Code.	<p>Article 2.9.3.3. is replaced by the following:</p> <p>“2.9.3.3. Tents occupied by the public</p>

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		<p><i>1) Smoking, open flame devices, fuel-burning devices and cooking appliances, with the exception of microwave ovens, shall not be permitted in a tent or air-supported structure while it is occupied by the public.”</i></p>
18	Subsection 2.9.3. of Division B of the Code	<p>Subsection 2.9.3. of Division B of the Code is amended by adding the following articles:</p> <p>“2.9.3.7. Cooking equipment and heat-generating appliances</p> <p><i>1) Cooking equipment and fuel-burning devices used in a tent or air-supported structure not meant for the public must be located at a distance of at least 600 mm from any combustible element.</i></p> <p><i>2) Tents, awnings and temporary shelters containing a cooking appliance used for public assemblies shall be set up at a distance of at least 3 m from one another and from any building.</i></p> <p>2.9.3.8 Interior enclosures</p> <p><i>1) Where a tent or air-supported structure is not provided with a fire alarm system, the enclosure used to divide the space shall not be installed less than 1 m from the ceiling. (See appendix A).”</i></p>
19	2.10.3.2 of Division B of the Code	Article 2.10.3.2 does not apply.
Division B, Part 3		
20	3.1.1.3. of Division B of the Code	<p>Article 3.1.1.3. is amended by adding the following paragraphs:</p> <p><i>“2) Consumer-use pyrotechnics displayed for sale shall be kept:</i></p> <p style="padding-left: 40px;"><i>a) in a display that is closed when not in use and that is not accessible to the public,</i></p> <p style="padding-left: 40px;"><i>b) sheltered from sunshine and other sources of high heat, namely by avoiding glass pane displays.</i></p> <p><i>3) Signs in conformance with Article 2.4.2.2 shall show that smoking near the pyrotechnic display is prohibited.”</i></p>
21	3.1.4.1. of Division B of the Code	<p>Article 3.1.4.1. is replaced by the following:</p> <p>“3.1.4.1. Hazardous locations</p> <p><i>1) Where wiring or electrical equipment is located in areas in which flammable gases or vapours, combustible dusts or combustible fibres are present in quantities sufficient to create a hazard, such wiring and electrical equipment shall conform to CSA-C22.1, “Canadian electrical code, Part I”, (see A-5.1.2.1. 1).”</i></p>
22	3.2.2.3. of Division B of the Code	<p>Sentence 4) is replaced by the following:</p> <p><i>“4) In sprinklered buildings, the clearance between the top of storage and ceiling sprinkler deflectors shall conform to the standard used to design the sprinkler system, while being no less than 450 mm.”</i></p>
23	3.2.4.2. of Division B of the Code	<p>Article 3.2.4.2. is replaced by the following :</p> <p>“ 3.2.4.2. Fire separations</p> <p><i>1) A tire storage area designed to contain more than 375 m³ of rubber tires shall be separated from the remainder of the building by a fire separation having a fire-resistance rating of not less than 2 hrs. (See Appendix A.)”</i></p>
24	3.2.6.2. of Division B of the Code	<p>Article 3.2.6.2. is replaced by the following:</p> <p>“3.2.6.2. Storage building construction</p>

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		<i>1) Buildings or parts thereof used for the storage of baled combustible fibres shall conform to height and surface area requirements as provided in the NBC for Group F, Division 2 buildings.”</i>
25	3.2.7.5. of Division B of the Code	Sentences 6) and 7) are replaced by the following: <i>“6) Except as permitted in Table 3.2.7.6., Class 5 oxidizing substances shall be separated from the remainder of the building by a fire separation having a fire-resistance rating of at least 2 hrs.</i> <i>7) Reactive substances shall be separated from the remainder of the building by a fire separation of at least 2 hrs. (see A-3.1.2.5. 1)”</i>
26	3.2.7.8. of Division B of the Code	Sentence 1) is replaced by the following: <i>“1) Floors in areas where dangerous goods are stored shall be:</i> <i>a) constructed using impervious materials that do not absorb chemical products; and</i> <i>b) maintained as an impervious membrane.”</i>
27	3.2.8.2. of Division B of the Code	Sentence 1) is replaced by the following: <i>“1) Except as provided in Sentences (2) and (3), cylinders of Class 2.1 flammable gases stored indoors shall be located in a room that:</i> <i>a) is separated from the remainder of the building by gas-tight fire separations having a fire-resistance rating of at least 2 hrs;</i> <i>b) is located on an exterior wall of a building;</i> <i>c) can be entered from the exterior, and whose closures leading to the interior of the building are:</i> <i>i) equipped with a power-locking device to ensure that closures remain locked when they are not in use; and</i> <i>ii) constructed so as to prevent gas migration throughout the rest of the building;</i> <i>d) is designed to prevent critical structural and mechanical damage from an internal explosion in conformance with good engineering practice such as that described in NFPA-68, “Explosion Protection by Deflagration Venting” (see Appendix A);</i> <i>e) is provided with natural or mechanical ventilation in conformance with Subsection 4.1.7.;</i> <i>f) does not contain fuel-fired appliances or high-temperature heating elements, and</i> <i>g) is used for no purpose other than the storage of Class 2 gases.”</i>
28	3.2.8.3. of Division B of the Code	Sentence (1) is replaced by the following: <i>“1) Cylinders of Class 2.3 toxic or corrosive gases or Class 2.2(5.1) oxidizing gases stored indoors shall be located in a room that:</i> <i>a) is separated from the remainder of the building by gas-tight fire separations having a fire-resistance rating of at least 1 hrs;</i> <i>b) is located on an exterior wall;</i> <i>c) can be entered from the exterior, and whose closures leading to the interior of the building are:</i> <i>i) equipped with a power-locking device to ensure that closures remain locked when they are not in use; and</i> <i>ii) constructed so as to prevent gas migration throughout the rest of the building;</i> <i>d) is provided with ventilation to the outdoors. ”</i>
29	3.2.9.2. of Division B of the Code	Article 3.2.9.2. is replaced by the following:

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		<p>“3.2.9.2. Storage buildings</p> <p><i>1) Buildings intended for the storage of ammonium nitrate shall be classified as medium hazard industrial occupancies (Group F, Division 2).</i></p> <p><i>2) Buildings intended for the storage of ammonium nitrate shall not be more than one storey in building height.</i></p> <p><i>3) Buildings intended for the storage of ammonium nitrate shall not:</i></p> <p style="padding-left: 40px;"><i>a) have basements or crawl spaces;</i></p> <p style="padding-left: 40px;"><i>b) contain open floor drains, tunnels, elevator pits or other pockets that might trap molten ammonium nitrate.</i></p> <p><i>4) Buildings intended for the storage of ammonium nitrate shall have not less than 0.007 m² of vent area for each square metre of storage area, unless mechanical ventilation is provided.</i></p> <p><i>5) All flooring in storage areas shall be constructed of noncombustible materials.</i></p> <p><i>6) Buildings intended for the storage of ammonium nitrate shall be designed to prevent the ammonium nitrate from coming into contact with building materials that</i></p> <p style="padding-left: 40px;"><i>a) will cause the ammonium nitrate to become unstable,</i></p> <p style="padding-left: 40px;"><i>b) may corrode or deteriorate by reason of contact with the ammonium nitrate, or</i></p> <p style="padding-left: 40px;"><i>c) will become impregnated with the ammonium nitrate.</i></p> <p style="padding-left: 40px;"><i>(See Appendix A.)</i></p> <p><i>7) Buildings used for the storage of ammonium nitrate shall incorporate spatial separation and exposure protection in conformance with Subsection 3.2.3. of Division B of the NBC. (See Appendix A.)”</i></p>
30	3.3.2.6. of Division B of the Code	<p>Sentence (1) is replaced by the following:</p> <p>“ 1) An outdoor storage are shall be surrounded by a firmly anchored fence that is</p> <p style="padding-left: 40px;"><i>a) substantially constructed to discourage climbing and unauthorized entry,</i></p> <p style="padding-left: 40px;"><i>b) not less than 1.8 m high and has its inferior part at most 150 mm from the ground; and</i></p> <p style="padding-left: 40px;"><i>c) provided with gates that shall be locked when the storage area is not staffed.”</i></p>
Division B, Part 4		
31	4.2.4.3. of Division B of the Code	Sentence (2) of Article 4.2.4.3. does not apply.
32	4.2.6.1. of Division B of the Code	<p>Article 4.2.6.1 is replaced by the following:</p> <p>“4.2.6.1. Application</p> <p><i>1) This subsection shall apply to the storage, handling and use of flammable liquids and combustible liquids in business, care or detention occupancies and shall include nonresidential schools, universities and colleges.”</i></p>
33	4.2.9.5. of Division B of the Code	<p>Article 4.2.9.5. of Division B of the Code is replaced by the following:</p> <p>“4.2.9.5. Explosion venting</p> <p><i>1) Where Class IA or IB liquids are dispensed within a storage room, the room shall be designed to prevent critical structural and mechanical damage from an internal explosion, in conformance with good engineering practice and with NFPA-68, “Explosion Protection</i></p>

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		<i>by Deflagration Venting” (See A-3.2.8.2. 1)d)).”</i>
34	4.2.10.3. of Division B of the Code	Sentence (3) is replaced by the following: <i>“3) In care or detention occupancies, the total quantity of flammable liquids and combustible liquids stored in cabinets in a single fire compartment shall not exceed the quantity permitted for one cabinet.”</i>
35	4.3.7.2. of Division B of the Code	Article 4.3.7.2. is amended by adding the following sentence: <i>“5) Where a secondary containment surrounds more than one storage tank, it shall be provided with drainage channels or dikes in conformance with NFPA-30, “Flammable and Combustible Liquids Code” in order to avoid a liquid spill or leak endangering adjacent tanks.”</i>
36	4.5.6.10. of Division B of the Code	Article 4.5.6.10. is replaced by the following: <i>“4.5.6.10. Piping in trenches</i> <i>1) Where indoor piping for flammable liquids or combustible liquids is installed in trenches, a trapped drainage system shall be provided.</i> <i>2) When piping referred to in Sentence (1) contains Class I liquids, the trench shall:</i> <i>a) be provided with positive ventilation to the outdoors; or</i> <i>b) be designed so as to prevent the accumulation of flammable vapours.”</i>
37	4.6.3.3. of Division B of the Code	Sentence (3) does not apply.
38	4.9.3.2. of Division B of the Code	Article 4.9.3.2. is replaced by the following: <i>“ 4.9.3.2. Fire separations</i> <i>1) Areas where unstable liquids are handled or where small scale unit chemical processes occur shall be separated from the remainder of the building by a fire separation having a fire-resistance rating of at least 2 hrs.”</i>
39	Subsection 4.11.2. of Division B of the Code	Subsection 4.11.2. is amended by adding the following article: <i>“4.11.2.5 Prohibited use</i> <i>1) A tank vehicle shall not be used as a storage tank.”</i>
	Division B, Part 5	
40	5.3.3.4. of Division B of the Code	Article 5.3.3.4. is replaced by the following: <i>“ 5.3.3.4. Fire protection</i> <i>1) Where sandpipe and hose systems are provided, fog and fine spray nozzles hose system shall be used in order to prevent combustible dusts from being raised into suspension upon application of a solid stream water discharge.”</i>
41	5.4.5.2. of Division B of the Code	Article 5.4.5.2. is amended by adding the following sentence: <i>“2) Spray coating facilities involving the use of flammable liquids shall not be used in basements.”</i>
42	Subsection 5.4.5. of Division B of the Code	Subsection 5.4.5. of Division B of the Code is amended by adding the following article: <i>“5.4.5.3. Use</i> <i>1) Spray coating facilities whose ventilation system is not operational or is not in good condition shall not be used.”</i>
43	5.5.4.1. of Division B of the Code	Article 5.5.4.1 of Division B of the Code is replaced by the following: <i>“5.5.4.1. General ventilation</i> <i>1) A laboratory shall be provided with a continuous mechanical ventilation system that is designed and maintained so as to ensure that vapours and particles produced by dangerous goods:</i> <i>a) do not accumulate in the laboratory;</i>

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		<p><i>b) do not spread to other parts of the building;</i></p> <p><i>c) do not accumulate in ventilation ducts;</i></p> <p><i>d) are evacuated outside; and</i></p> <p><i>e) cannot infiltrate the building after having been evacuated.</i></p> <p>2) <i>A ventilation system required in this section must be provided with monitoring devices which:</i></p> <p><i>a) indicate that the ventilation system is operational; and</i></p> <p><i>b) trigger an alarm if the ventilation system is defective.”</i></p>
44	5.5.4.2. of Division B of the Code	<p>Article 5.5.4.2. is replaced by the following:</p> <p>“5.5.4.2. Power-ventilated enclosures</p> <p>1) <i>The use of dangerous goods in a laboratory shall be confined inside a power-ventilated enclosure conforming to the criteria listed in Articles 5.5.4.3. and 5.5.4.4. when:</i></p> <p><i>a) their use releases flammable vapours or causes runaway or potentially explosive reactions;</i></p> <p><i>b) liquids are heated to a temperature equal to or greater than their flash point; and</i></p> <p><i>c) Class I liquids or unstable liquids are used.</i></p> <p>2) <i>A power-ventilated enclosure required in Sentence (1) shall not be used for the storage of dangerous goods, and the quantity in excess of the supply necessary for normal operations shall conform to Subsection 5.5.5.”</i></p>
45	5.5.4.3. of Division B of the Code	<p>Article 5.5.4.3. is replaced by the following:</p> <p>“5.5.4.3. Enclosure exhaust ventilation</p> <p>1) <i>The ventilation system for a power-ventilated enclosure required in Article 5.5.4.2. shall:</i></p> <p><i>a) be in conformance with NFPA-91, “Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids”;</i></p> <p><i>b) ensure continuous air exhaust at a sufficient speed to prevent combustible or reactive deposits inside the enclosures or exhaust ducts;</i></p> <p><i>c) confine vapours and particles from dangerous goods inside the location where they are produced and evacuate them outside;</i></p> <p><i>d) prevent the infiltration of air back into the building; and</i></p> <p><i>e) be provided with properly identified command switches:</i></p> <p><i>i) located outside power-ventilated enclosures; and</i></p> <p><i>ii) accessible in case of emergency.</i></p> <p>2) <i>Where deposits mentioned in Clause 1)b) accumulate inside power-ventilated enclosure and exhaust ducts and create a fire or explosion hazard,</i></p> <p><i>a) provisions shall be made to remove such deposits so they do not create a fire or explosion hazard; and</i></p> <p><i>b) an automatic fire suppression system shall be provided.”</i></p>
46	5.5.4.4. of Division B of the Code	<p>Article 5.5.4.4 of Division B of the Code is replaced by the following:</p> <p>“5.5.4.4. Enclosure construction</p> <p>1) <i>The power-ventilated enclosures required in Article 5.5.4.2. and their exhaust ducts shall:</i></p> <p><i>a) subject to Sentences (2) and (3), be made of noncombustible materials compatible with the vapors and particles produced by dangerous goods and resist their</i></p>

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		<p><i>chemical attacks;</i></p> <p><i>b) be provided with entrance doors for the purposes of inspection and maintenance of ventilators and ducts;</i></p> <p><i>c) be provided with instructions for their use and the operation of the ventilation system; and</i></p> <p><i>d) be provided with means to control accidental spillage.</i></p> <p>2) <i>The use of combustible materials is permitted under Clause 1)a):</i></p> <p><i>a) if no other material provides the desired resistance to the corrosive action or reactive properties of the dangerous goods used; and</i></p> <p><i>b) if their flame spread rating is at most 25.</i></p> <p>3) <i>It is permitted to exceed the flame spread rating required in Sentence (2) if enclosures and exhaust ducts are serviced by an automatic fire suppression system.”</i></p>
	Division B, Part 6	
47	6.3.1.1. of Division B of the Code	<p>Article 6.3.1.1. of Division B of the Code is amended by adding the following sentence:</p> <p>“2) <i>The circuit breakers or fuses supplying power to the fire alarm system shall be clearly identified and their access shall be limited to authorized persons or shall otherwise be power-locked in power-supply mode.”</i></p>
48	Subsection 6.4.1. of Division B of the Code	<p>Subsection 6.4.1. of Division B of the Code is amended by adding the following article:</p> <p>“6.4.1.2. Monitoring</p> <p>1) <i>The supply valves of water-based fire protection systems shall be constantly monitored in conformance with NFPA 13 “Standard for the Installation of Sprinkler Systems”.”</i></p>
	Division B, Appendix A	
49	Appendix A of Division B of the Code.	<p>Appendix A is amended by adding the following notes :</p> <p>“A-2.8.2.1. 2)c) Measures. <i>The site plan referred to in sub-clause i) should include at least the following elements:</i></p> <ul style="list-style-type: none"> • <i>building location and orientation, including distances from property boundaries;</i> • <i>the location of any other building on the parcel of land including distances related to property boundaries and those between buildings;</i> • <i>firefighters’ access ways;</i> • <i>obstacles to firefighting, such as fences, hedges, pools, and underground constructions;</i> • <i>the location of fire-department connections and fire hydrants;</i> • <i>gas inlets and Hydro Québec transformer vault.</i> <p><i>The stock plans referred to in sub-clauses ii) and iii) should include at least the following elements:</i></p> <ul style="list-style-type: none"> • <i>building dimensions in millimetres;</i> • <i>elevators;</i> • <i>stairwells, including the identification of those providing access to the roof;</i> • <i>location of main valves for household water and sprinkler water, of floor valves and gas inlets;</i> • <i>interior enclosures, hallways and door direction;</i>

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		<ul style="list-style-type: none"> • exterior walls, exterior siding and windows, including identification of opening windows; • mechanical rooms, such as electrical and telecommunication rooms, laundry chutes, garbage chutes, dinner-lifts; • hose cabinets with their class according to NFPA-14, hose connections and fire-department connections; • emergency telephones for firefighter use; • mechanics floors; • fire alarm annunciator panel; • location of emergency generator and fuel tank; and • location of hazardous materials. <p>A-2.8.2.2 1) Double signal alarm system. When an alert signal is sounded, supervisory staff shall be able to quickly verify the origin, confirm the presence of a fire onset and operate the fire alarm system accordingly in order to apply the emergency procedures to be used in case of fire as described in Clause 2.8.2.1. 1)a). In all cases, firefighters shall be called at the onset of the initial alert.</p> <p>A-2.8.2.7. 1) Safety equipment provided on the floor area of the building and which shall be shown on the posted plans namely include: manual fire alarm stations, portable extinguishers, hose cabinets, firefighters' water intakes, emergency telephones, gas distribution control valves and other equipment available on the floor to be used in case of an emergency.</p> <p>The posting of fire emergency procedures for occupants shall include at least the following instructions:</p> <table border="1" data-bbox="690 1357 1526 1921"> <thead> <tr> <th><i>En cas d'incendie.</i></th> <th><i>In case of fire.</i></th> </tr> </thead> <tbody> <tr> <td>1. Actionnez l'avertisseur manuel d'incendie.</td> <td>1. Pull the manual fire alarm station.</td> </tr> <tr> <td>2. Quittez l'édifice par les escaliers.</td> <td>2. Leave the building using stairways.</td> </tr> <tr> <td>3. Une fois à l'extérieur, éloignez-vous du bâtiment.</td> <td>3. Once outside, move away from the building.</td> </tr> <tr> <td>4. Alertez le Service des incendies.</td> <td>4. Call the Fire Department.</td> </tr> <tr> <td><i>Pour urgence faite le 9-1-1</i></td> <td><i>For emergency, call 9-1-1</i></td> </tr> </tbody> </table> <p>When a guard or private security service is provided in a building, the internal telephone number for this service may be provided along with the 9-1-1 mention.</p> <p>Where a telephone system requires a specific procedure or number to make an external call, that number shall be posted along with 9-1-1.</p> <p>A-2.9.3.8. 1) Interior enclosures. At least 1 m is required above the enclosures so as to facilitate smoke detection in tents or air-supported structures. Taking into account roof sloping, at most 30% of the width of the enclosure may be located less than 1 m from the roof."</p>	<i>En cas d'incendie.</i>	<i>In case of fire.</i>	1. Actionnez l'avertisseur manuel d'incendie.	1. Pull the manual fire alarm station.	2. Quittez l'édifice par les escaliers.	2. Leave the building using stairways.	3. Une fois à l'extérieur, éloignez-vous du bâtiment.	3. Once outside, move away from the building.	4. Alertez le Service des incendies.	4. Call the Fire Department.	<i>Pour urgence faite le 9-1-1</i>	<i>For emergency, call 9-1-1</i>
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50	A-3.2.9.2. of Division B of the Code.	<p>Appendix A of Division B is amended by replacing Note A- 3.2.9.2. 5) by the following notes:</p> <p>"A-3.2.9.2. 6) Copper or copper alloys shall not be used in locations where this metal may come in contact with ammonium nitrate. The</p>												

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		<p><i>presence of copper represents the only ammonium nitrate accidental detonation hazard in case of a fire.</i></p> <p><i>Steel and wood may be protected with special coating, for example using sodium silicate, epoxy resin or vinyl chloride.</i></p> <p><i>Bitumen or hydrocarbon-based roofing materials shall not be used. Stored ammonium nitrate may, during a fire, be sensitized as a result of fusion and of the leakage of certain materials that may infiltrate the building and fall on the stored product as burning drops.</i></p> <p><i>A-3.2.9.2. 7) Authorities having jurisdiction may increase the minimum clearances required under Subsection 3.2.3. of Division B of the NBC, taking into account proximity, occupancy (assembly, residential, care or detention, or commercial) and the proximity of the façades and of the commercial or industrial areas as well as the risk of exposure to toxic vapours emanating from an ammonium nitrate fire.”</i></p>
	Division C, Appendix A	
51	Annexe A of Division C of the Code.	Appendix A of Division C does not apply.
