

2026

FIRE CODE COMPENDIUM



2026 FIRE CODE COMPENDIUM

**Ministry of the Solicitor General
Office of the Fire Marshal**

2026 FIRE CODE COMPENDIUM

To order additional copies of this publication, contact:

Publications Ontario

Online: www.publications.gov.on.ca

By telephone:

- 416-326-5300 (Greater Toronto Area)
- 416-325-3408 (TTY, Greater Toronto Area)
- 1-800-668-9938 (toll-free within Canada)
- 1-800-268-7095 (TTY, toll-free within Ontario)

© Copyright King's Printer for Ontario, 2026

ISBN 978-1-4868-9157-3 (PDF)

ISBN 978-1-4868-9158-0 (PRINT, spiral bound)

ISBN 978-1-4868-9159-7 (PRINT, binder)

All rights reserved.

Questions regarding copyright, including reproduction and distribution, may be directed to the Office of the Fire Marshal, Ministry of the Solicitor General.

TABLE OF CONTENTS

FIRE PROTECTION AND PREVENTION ACT, 1997

REGULATIONS MADE UNDER THE FIRE PROTECTION AND PREVENTION ACT, 1997

FIRE CODE, ONTARIO REGULATION 213/07, AS AMENDED

DIVISION A	COMPLIANCE, OBJECTIVES AND FUNCTIONAL STATEMENTS
DIVISION B	ACCEPTABLE SOLUTIONS
DIVISION C	ADMINISTRATIVE PROVISIONS

ALPHABETICAL LISTING TO THE FIRE CODE

FIRE CODE SUPPLEMENT

FCS-1	OBJECTIVES AND FUNCTIONAL STATEMENTS ATTRIBUTED TO THE ACCEPTABLE SOLUTIONS, FEBRUARY 2025

APPENDICES TO THE FIRE CODE

APPENDIX A	1986 BUILDING CODE REFERENCES
APPENDIX B	1990 BUILDING CODE REFERENCES
APPENDIX C	1994 BUILDING CODE REFERENCES
APPENDIX D	EXPLANATORY NOTES
APPENDIX E	CONVERSION FACTORS

FIRE PROTECTION AND PREVENTION ACT, 1997

S.O. 1997, CHAPTER 4

Current to January 1, 2026

This document is prepared for convenience only. For accurate reference and current information on amendments to the *Fire Protection and Prevention Act, 1997*, refer to the Government of Ontario's e-Laws web site at www.ontario.ca/laws.

CONTENTS

PART I DEFINITIONS

1. Definitions

PART II RESPONSIBILITY FOR FIRE PROTECTION SERVICES

2. Municipal responsibilities
3. Territory without municipal organization
4. Community fire safety officer or team
5. Municipalities may establish fire departments
6. Fire chief, municipalities
7. Fire co-ordinators
- 7.1 Municipal by-laws

PART III FIRE MARSHAL

8. Fire Marshal, Deputy Fire Marshals
9. Powers of Fire Marshal
10. Delegation
11. Assistants to the Fire Marshal

PART IV FIRE CODE

12. Fire Code

PART V RIGHTS OF ENTRY IN EMERGENCIES AND FIRE INVESTIGATIONS

13. Entry on adjacent lands by firefighters, etc.
14. Entry where fire has occurred or is likely to occur
15. Immediate threat to life
16. Assistance
17. Identification

PART VI INSPECTIONS

18. Interpretation
19. Inspectors
20. Warrant authorizing entry
21. Inspection orders
22. Limitation on orders relating to structural repairs
23. Contents of order
24. Service of order
25. Review of inspection order by Fire Marshal
26. Appeal to Fire Safety Commission

- 27. Appeal to Divisional Court

PART VII

OFFENCES AND ENFORCEMENT

- 27.1 Subsequent offence
- 28. Offences
- 29. Offence, removal of posted notice
- 30. Offence, failure to comply with inspection order
- 30.1 Limitation period
- 30.2 Administrative penalties
- 31. Order to close premises, etc.
- 32. Compliance order
- 33. Fire Marshal to carry out inspection order
- 34. Warrant authorizing entry

PART VIII

RECOVERY OF COSTS

- 35. Fire Marshal's order to pay costs
- 36. Appeal to Fire Safety Commission
- 37. Enforcement of order to pay costs
- 38. Instructions for municipality to recover costs
- 39. Collection of costs
- 40. Expenses related to work on other lands

PART IX

FIREFIGHTERS: EMPLOYMENT AND LABOUR RELATIONS

DEFINITIONS

- 41. Definitions

WORKING CONDITIONS

- 42. Strike and lock outs
- 43. Hours of work
- 44. Termination of employment

ESTABLISHMENT OF BARGAINING RIGHTS BY CERTIFICATION

- 45. Bargaining unit
- 46. Bargaining agent

UNFAIR LABOUR PRACTICES

- 46.1 Duty of fair representation by association
- 46.2 Employers not to interfere with associations
- 46.3 Associations not to interfere with employers' organizations
- 46.4 Employers not to interfere with firefighters' rights
- 46.5 No interference with bargaining rights
- 46.6 Intimidation and coercion
- 46.7 Persuasion during working hours
- 46.8 Protection of witnesses' rights
- 46.9 Removal, etc., of posted notices

COLLECTIVE BARGAINING

- 47. Notice of desire to bargain
- 48. Obligation to bargain
- 49. Referral to arbitration
- 50.1 Arbitrator
- 50.2 Selection of method
- 50.3 Procedure
- 50.3.1 Notice of agreement to recommence
- 50.3.2 Powers
- 50.4 Single arbitration of several disputes
- 50.5 Duty of arbitrator
- 50.6 Where agreement reached
- 50.7 Delegation
- 50.8 Existing proceedings discontinued
- 50.9 Transition
- 50.10 Transition

OPERATION OF COLLECTIVE AGREEMENTS

- 51. Collective agreement
- 52. Minimum term of collective agreements
- 52.1 Deduction and remittance of association dues
- 52.2 Permissive provisions
- 52.3 Religious objections
- 53. Arbitration provision required
- 53.0.1 Referral of grievances to a single arbitrator
- 53.1 Mandatory retirement
- 54. Managers, etc.
- 55. Enforcement of decisions
- 56. Working conditions not to be altered
- 56.1 Inquiry, alleged contravention
- 56.2 "person" defined for purposes of ss. 46.8 and 56.1
- 56.3 Board power re interim orders
- 56.4 Transition rules

REGULATIONS

- 57. Regulations

PART X

FIRE SAFETY COMMISSION

- 58. Fire Safety Commission

PART XI

FIRE MARSHAL'S PUBLIC FIRE SAFETY COUNCIL

- 59. Definition: "Council"
- 60. Council established
- 61. Objects
- 62. Board
- 63. Powers of Council
- 64. Borrowing powers

- 65. By-laws
- 66. Council's property to be dedicated to objects
- 67. Employees
- 68. Ministry support
- 69. Protection from personal liability
- 70. Auditors
- 71. Annual and other reports
- 72. Winding-up
- 73. Review

PART XII MISCELLANEOUS

- 74. Protection from personal liability
- 75. Indemnification
- 76. No action for damages from accidental fire
- 77. Manner of service
- 78. Regulations
- 79. Municipal by-laws superseded

PART I

DEFINITIONS

Definitions

1. (1) In this Act,

“community fire safety officer” means a community fire safety officer appointed under clause 2 (2) (a) or subsection 2 (4) or by an agreement under clause 3 (2) (a); (“agent local de la sécurité-incendie”)

“community fire safety team” means a community fire safety team appointed under clause 2 (2) (a) or subsection 2 (4) or by an agreement under clause 3 (2) (a); (“équipe locale de la sécurité-incendie”)

“fire chief” means a fire chief appointed under subsection 6 (1), (2) or (4); (“chef des pompiers”)

“fire code” means the fire code established under Part IV; (“code de prévention des incendies”)

“fire department” means a group of firefighters authorized to provide fire protection services by a municipality, group of municipalities or by an agreement made under section 3; (“service d’incendie”)

“firefighter” means a fire chief and any other person employed in, or appointed to, a fire department and assigned to undertake fire protection services, and includes a volunteer firefighter; (“pompier”)

“Fire Marshal” means the Fire Marshal appointed under subsection 8 (1); (“commissaire des incendies”)

“fire protection services” includes,

- (a) fire suppression, fire prevention and fire safety education,
- (b) mitigation and prevention of the risk created by the presence of unsafe levels of carbon monoxide and safety education related to the presence of those levels,
- (c) rescue and emergency services,
- (d) communication in respect of anything described in clauses (a) to (c),
- (e) training of persons involved in providing anything described in clauses (a) to (d), and
- (f) the delivery of any service described in clauses (a) to (e); (“services de protection contre les incendies”)

“Fire Safety Commission” means the Fire Safety Commission continued under Part X of this Act; (“Commission de la sécurité-incendie”)

“Minister” means, in each Part of this Act, the member of the Executive Council to whom the administration of this Act, or of the Part of this Act, is assigned from time to time unless the Part provides otherwise; (“ministre”)

“municipality” means local municipality as defined in the *Municipal Act, 2001*; (“municipalité”)

“prescribed” means prescribed by regulation; (“prescrit”)

“regulation” means a regulation made under this Act; (“règlement”)

“volunteer firefighter” means a firefighter who provides fire protection services either voluntarily or for a nominal consideration, honorarium, training or activity allowance. (“pompier volontaire”)
1997, c. 4, s. 1 (1); 2001, c. 25, s. 475 (1); 2013, c. 14, s. 2; 2015, c. 34, Sched. 1, s. 1.

Interpretation of land and premises

(2) For the purposes of this Act, a reference to land and premises or to land or premises includes any buildings, structures or things situated on or attached to the land or premises. 1997, c. 4, s. 1 (2).

Application of definition of firefighter

(3) The definition of firefighter in subsection (1) does not apply to Part IX. 1997, c. 4, s. 1 (3).

Automatic aid agreements

- (4) For the purposes of this Act, an automatic aid agreement means any agreement under which,
- (a) a municipality agrees to ensure the provision of an initial response to fires, rescues and emergencies that may occur in a part of another municipality where a fire department in the municipality is capable of responding more quickly than any fire department situated in the other municipality; or
 - (b) a municipality agrees to ensure the provision of a supplemental response to fires, rescues and emergencies that may occur in a part of another municipality where a fire department situated in the municipality is capable of providing the quickest supplemental response to fires, rescues and emergencies occurring in the part of the other municipality. 1997, c. 4, s. 1 (4).

Same

(5) A mutual aid plan established under section 7 does not constitute an automatic aid agreement for the purposes of subsection (4). 1997, c. 4, s. 1 (5).

PART II

RESPONSIBILITY FOR FIRE PROTECTION SERVICES

Municipal responsibilities

2. (1) Every municipality shall,
- (a) establish a program in the municipality which must include public education with respect to fire safety and certain components of fire prevention; and
 - (b) provide such other fire protection services as it determines may be necessary in accordance with its needs and circumstances.

Methods of providing services

- (2) In discharging its responsibilities under subsection (1), a municipality shall,

- (a) appoint a community fire safety officer or a community fire safety team; or
- (b) establish a fire department.

Services to be provided

(3) In determining the form and content of the program that it must offer under clause (1) (a) and the other fire protection services that it may offer under clause (1) (b), a municipality may seek the advice of the Fire Marshal.

Shared responsibilities

(4) Two or more municipalities may appoint a community fire safety officer or a community fire safety team or establish a fire department for the purpose of providing fire protection services in those municipalities.

Services outside municipality

(5) A municipality may, under such conditions as may be specified in the agreement, enter into an agreement to,

- (a) provide such fire protection services as may be specified in the agreement to lands or premises that are situated outside the territorial limits of the municipality; and
- (b) receive such fire protection services as may be specified in the agreement from a fire department situated outside the territorial limits of the municipality.

Automatic aid agreements

(6) A municipality may enter into an automatic aid agreement to provide or receive the initial or supplemental response to fires, rescues and emergencies.

Review of municipal fire services

(7) The Fire Marshal may monitor and review the fire protection services provided by municipalities to ensure that municipalities have met their responsibilities under this section and, if the Fire Marshal is of the opinion that, as a result of a municipality failing to comply with its responsibilities under subsection (1), a serious threat to public safety exists in the municipality, he or she may make recommendations to the council of the municipality with respect to possible measures the municipality may take to remedy or reduce the threat to public safety.

Failure to provide services

(8) If a municipality fails to adhere to the recommendations made by the Fire Marshal under subsection (7) or to take any other measures that in the opinion of the Fire Marshal will remedy or reduce the threat to public safety, the Minister may recommend to the Lieutenant Governor in Council that a regulation be made under subsection (9).

Regulation

(9) Upon the recommendation of the Minister, the Lieutenant Governor in Council may make regulations establishing standards for fire protection services in municipalities and requiring municipalities to comply with the standards.

Same

(10) A regulation under this section may be general or specific in its application and may be restricted to those municipalities specified in the regulation. 1997, c. 4, s. 2.

Territory without municipal organization

3. (1) The Fire Marshal, a services board established to provide services in territory without municipal organization or a prescribed person or organization may enter into agreements to provide fire protection services in territory without municipal organization and to govern the provision of those services.

Same

- (2) An agreement referred to in subsection (1) may provide for,
- (a) the appointment of a community fire safety officer or a community fire safety team; or
 - (b) the establishment of a fire department. 1997, c. 4, s. 3.

Community fire safety officer or team

4. (1) A community fire safety officer or a community fire safety team appointed in a municipality or in a group of municipalities shall provide the program established under clause 2 (1) (a) in the municipality or in the group of municipalities, as the case may be.

Same

(2) A community fire safety officer or a community fire safety team appointed by agreement with the Fire Marshal, a services board or a prescribed person or organization to provide services in territory without municipal organization shall provide a program which includes public education with respect to fire safety and certain components of fire prevention in the territory in accordance with the agreement. 1997, c. 4, s. 4.

Municipalities may establish fire departments

5. (0.1) The council of a municipality may establish, maintain and operate a fire department for all or any part of the municipality. 2001, c. 25, s. 475 (2).

Fire departments

(1) A fire department shall provide fire suppression services and may provide other fire protection services in a municipality, group of municipalities or in territory without municipal organization. 1997, c. 4, s. 5 (1).

Same

(2) Subject to subsection (3), the council of a municipality may establish more than one fire department for the municipality. 1997, c. 4, s. 5 (2).

Exception

(3) The council of a municipality may not establish more than one fire department if, for a period of at least 12 months before the day this Act comes into force, fire protection services in the municipality were provided by a fire department composed exclusively of full-time firefighters. 1997, c. 4, s. 5 (3).

Same

(4) The councils of two or more municipalities may establish one or more fire departments for the municipalities. 1997, c. 4, s. 5 (4).

Fire chief, municipalities

6. (1) If a fire department is established for the whole or a part of a municipality or for more than one municipality, the council of the municipality or the councils of the municipalities, as the case may be, shall appoint a fire chief for the fire department.

Same

(2) The council of a municipality or the councils of two or more municipalities may appoint one fire chief for two or more fire departments.

Responsibility to council

(3) A fire chief is the person who is ultimately responsible to the council of a municipality that appointed him or her for the delivery of fire protection services.

Fire chief, territory without municipal organization

(4) If a fire department is established in territory without municipal organization under subsection 3 (2), the agreement shall provide for the appointment of a fire chief.

Powers of fire chief

(5) The fire chief may exercise all the powers assigned to him or her under this Act within the territorial limits of the municipality and within any other area in which the municipality has agreed to provide fire protection services, subject to any conditions specified in the agreement.

Delegation

(6) A fire chief may delegate his or her powers or duties under sections 14, 19 and 20 and such other powers and duties as may be prescribed to any firefighter or class of firefighters, subject to such limitations, restrictions or conditions as may be prescribed or set out in the delegation. 1997, c. 4, s. 6.

Fire co-ordinators

7. (1) The Fire Marshal may appoint fire co-ordinators for such areas as may be designated in the appointment. 1997, c. 4, s. 7 (1).

Duties

- (2) A fire co-ordinator shall, subject to the instructions of the Fire Marshal,
- (a) establish and maintain a mutual aid plan under which the fire departments that serve the designated area agree to assist each other in the event of an emergency; and
 - (b) perform such other duties as may be assigned by the Fire Marshal. 1997, c. 4, s. 7 (2); 2002, c. 18, Sched. N, s. 1

Municipal by-laws

- 7.1 (1) A council of a municipality may pass by-laws,
- (a) regulating fire prevention, including the prevention of the spreading of fires;
 - (b) regulating the setting of open air fires, including establishing the times during which open air fires may be set;
 - (c) designating private roads as fire routes along which no parking of vehicles shall be permitted and providing for the removal and impounding of any vehicle parked or left along any of the fire routes at the expense of the owner of the vehicle. 2001, c. 25, s. 475 (3).

Definition

- (2) For the purpose of clause (1) (c),
- “private road” means any private road, lane, ramp or other means of vehicular access to or from a building or structure and may include part of a parking lot. 2001, c. 25, s. 475 (3).

Scope

- (3) A by-law under this section may deal with different areas of the municipality differently. 2001, c. 25, s. 475 (3).

Officer

- (4) A municipality may appoint an officer to enter upon land and into structures at any reasonable time to inspect the land and structures to determine whether by-laws enacted in accordance with this section are being complied with. 2001, c. 25, s. 475 (3).

Exercise of power

- (5) The exercise of powers by an officer appointed under this section shall be carried out in accordance with Part XIV of the *Municipal Act, 2001*, other than clause 431 (a) of that Act or with Part XV of the *City of Toronto Act, 2006*, other than paragraph 4 of subsection 375 (1) of that Act, as the case may be. 2001, c. 25, s. 475 (3); 2006, c. 32, Sched. C, s. 20 (1).

PART III FIRE MARSHAL

Fire Marshal, Deputy Fire Marshals

8. (1) The Lieutenant Governor in Council shall appoint a Fire Marshal and one or more Deputy Fire Marshals. 2023, c. 12, Sched. 4, s. 1.

Deputy Fire Marshals

(2) A Deputy Fire Marshal shall act in the place of the Fire Marshal if the Fire Marshal is absent or unable to act and, when so acting, may exercise all the powers and shall perform all the duties of the Fire Marshal. 2023, c. 12, Sched. 4, s. 1.

Powers of Fire Marshal

9. (1) The Fire Marshal has the power,
- (a) to monitor, review and advise municipalities respecting the provision of fire protection services and to make recommendations to municipal councils for improving the efficiency and effectiveness of those services;
 - (b) to issue directives to assistants to the Fire Marshal respecting matters relating to this Act and the regulations;
 - (c) to advise and assist ministries and agencies of government respecting fire protection services and related matters;
 - (d) to issue guidelines to municipalities respecting fire protection services and related matters;
 - (e) to co-operate with any body or person interested in developing and promoting the principles and practices of fire protection services;
 - (f) to issue long service awards to persons involved in the provision of fire protection services; and
 - (g) to exercise such other powers as may be assigned under this Act or as may be necessary to perform any duty assigned under this Act. 1997, c. 4, s. 9 (1).

Duties of Fire Marshal

- (2) It is the duty of the Fire Marshal,
- (a) to investigate the cause, origin and circumstances of any fire or of any explosion or condition that in the opinion of the Fire Marshal might have caused a fire, explosion, loss of life or damage to property;
 - (b) to advise municipalities in the interpretation and enforcement of this Act and the regulations;
 - (c) to provide information and advice on fire safety matters and fire protection matters by means of public meetings, newspaper articles, publications, electronic media and exhibitions and otherwise as the Fire Marshal considers advisable;
 - (d) to develop training programs and evaluation systems for persons involved in the provision of fire protection services and to provide programs to improve practices relating to fire protection services;
 - (e) to maintain and operate a central fire college;
 - (f) to keep a record of every fire reported to the Fire Marshal with the facts, statistics and circumstances that are required under this Act;
 - (g) to develop and maintain statistical records and conduct studies in respect of fire protection services; and
 - (h) to perform such other duties as may be assigned to the Fire Marshal under this Act. 1997, c. 4, s. 9 (2).

Application of Public Inquiries Act, 2009

(3) Section 33 of the *Public Inquiries Act, 2009* applies to any inquiry or investigation by the Fire Marshal under this Act. 2009, c. 33, Sched. 6, s. 59.

Employment of expert, etc.

(4) The Fire Marshal may employ legal, technical, scientific, clerical or other assistance that the Fire Marshal considers advisable or necessary in the conduct of any inquiry or investigation under this Act or in carrying out any of his or her powers or duties under this Act. 1997, c. 4, s. 9 (4).

Delegation

10. (1) The Fire Marshal may delegate any power or duty that is granted to or vested in the Fire Marshal under this Act to any person or class of persons, subject to such limitations, restrictions, conditions and requirements as may be set out in the delegation.

Same

(2) Subsection (1) applies with respect to any power or duty held by the Fire Marshal under this Act, including such statutory or discretionary powers as may be assigned to the Fire Marshal under this Act.

Certificate of appointment

(3) A certificate under the hand and seal of the Fire Marshal of the appointment of a person under this Act is proof in the absence of evidence to the contrary of the appointment in any court or elsewhere. 1997, c. 4, s. 10.

Assistants to the Fire Marshal

11. (1) The following persons are assistants to the Fire Marshal and shall follow the Fire Marshal's directives in carrying out this Act,

- (a) the fire chief of every fire department;
- (b) the clerk of every municipality that does not have a fire department;
- (c) any member of a fire prevention bureau established by a municipality; and
- (d) every person designated by the Fire Marshal as an assistant to the Fire Marshal. 1997, c. 4, s. 11 (1); 2002, c. 18, Sched. N, s. 2 (1).

Duty to report

(2) The assistants to the Fire Marshal shall report to the Fire Marshal all fires and other matters related to fire protection services as may be specified by the Fire Marshal. 1997, c. 4, s. 11 (2).

Submitting report

(3) A report under subsection (2) shall be made in the form and manner and within the time period specified by the Fire Marshal. 1997, c. 4, s. 11 (3).

Workers' compensation not affected

(4) The relationship between a person who is an assistant to the Fire Marshal under this section and the municipality or such other person by which he or she is employed continues for the purposes of the *Workplace Safety and Insurance Act, 1997* as if the person were not an assistant to the Fire Marshal. 1997, c. 4, s. 11 (4); 2002, c. 18, Sched. N, s. 2 (2).

PART IV FIRE CODE

Fire Code

12. (1) The Minister may make regulations that are considered advisable or necessary for the purpose of establishing a fire code for Ontario governing standards for equipment, systems, buildings, structures, land and premises, as those standards relate to fire safety or the risk created by the presence of unsafe levels of carbon monoxide. 2013, c. 14, s. 3.

Same

(1.1) A regulation made under this section may,

- (a) prescribe any method, matter or thing relating to fire protection;
- (b) prescribe any method, matter or thing relating to protection against the presence of unsafe levels of carbon monoxide;
- (c) govern standards for reducing the risk of, or consequences of, a fire that would seriously endanger the health or safety of any person or the quality of the natural environment for any use that can be made of it;
- (d) govern standards for reducing the risk of, or consequences of, the presence of unsafe levels of carbon monoxide that would seriously endanger the health or safety of any person or the quality of the natural environment for any use that can be made of it;
- (e) require and regulate fire protection equipment and systems and govern the maintenance of the equipment and systems;
- (f) require and regulate protection equipment and systems related to the presence of unsafe levels of carbon monoxide and govern the maintenance of the equipment and systems;
- (g) require and regulate means of egress, separations, finish materials, furnishings and decorations, standards of housekeeping and heating, ventilation, air conditioning and incinerating equipment and systems;
- (h) control or prohibit any material, substance, equipment or system affecting fire safety;
- (i) control or prohibit any material, substance, equipment or system affecting safety from the presence of unsafe levels of carbon monoxide;

- (j) require and regulate procedures respecting fire safety and the keeping and furnishing of records and reports;
- (k) require and regulate procedures respecting safety from the presence of unsafe levels of carbon monoxide and the keeping and furnishing of records and reports;
- (l) require the approval of the Fire Marshal or of a prescribed person respecting any method, matter or thing;
- (m) require notice to be given to the Fire Marshal or to a prescribed person respecting any change in use or occupancy;
- (n) prescribe conditions for use, occupation or demolition;
- (o) exempt any class of building, structure, lands or premises from compliance with the regulations or any provision of them and attach terms and conditions to the exemptions;
- (p) govern the qualifications and training of persons servicing, maintaining, testing or repairing fire protection devices, equipment or systems and the licensing of those persons;
- (q) govern the qualifications and training of persons servicing, maintaining, testing or repairing protection devices, equipment or systems related to the presence of carbon monoxide and the licensing of those persons;
- (r) adopt by reference, in whole or in part, with the changes that the Minister considers necessary, any code or standard and require compliance with any code or standard that is so adopted. 2013, c. 14, s. 3.

Limitation of application

(2) Any regulation made under this section may be limited in its application territorially or to any class of building, structure, land or premises or to any building, structure, land or premises used for any specified purpose. 1997, c. 4, s. 12 (2).

Buildings under construction

(3) Subject to subsection (4), the fire code does not apply to the unoccupied parts of a building that is under construction within the meaning of the *Building Code Act, 1992* or of a predecessor to that Act. 1997, c. 4, s. 12 (3).

Same

(4) The fire code applies to the unoccupied parts of a building that is under construction within the meaning of the *Building Code Act, 1992*, or of a predecessor to that Act, if,

- (a) there has been no substantial work related to the construction of the building for at least six months; or
- (b) the conditions in the unoccupied portions threaten the safety of the occupied portions. 1997, c. 4, s. 12 (4).

Municipal by-law prevails

(5) If there is a conflict between a provision of the fire code and a provision of a municipal by-law respecting the keeping and manufacturing of explosives, the provision that is the most restrictive prevails. 1997, c. 4, s. 12 (5).

PART V

RIGHTS OF ENTRY IN EMERGENCIES AND FIRE INVESTIGATIONS

Entry on adjacent lands by firefighters, etc.

13. (1) A firefighter or such other person as may be authorized by the fire chief, the Fire Marshal or an assistant to the Fire Marshal may, without a warrant, enter on lands or premises,

- (a) that are adjacent to the lands or premises on which a fire or emergency has occurred or is occurring, for the purposes of fighting the fire or of providing rescue or emergency services; or
- (b) that are adjacent to the lands or premises on which there is a serious threat to the health and safety of any person or the quality of the natural environment, for the purpose of removing or reducing the threat. 1997, c. 4, s. 13 (1); 2001, c. 25, s. 475 (4).

Prevention of fire spreading

(1.1) A firefighter or such other person as may be authorized by the fire chief may, without a warrant, enter on lands or premises on which a fire is occurring, or that are adjacent to those lands or premises, for the purposes of pulling down or removing buildings, structures or things on or attached to the lands or premises on which a fire is occurring or that are adjacent to those lands or premises if, in the opinion of the fire chief, it is necessary to do so to prevent the spread of the fire. 2001, c. 25, s. 475 (5).

Entry onto land outside municipality

(2) A firefighter or such other person as may be authorized by the fire chief may, without a warrant, enter on lands or premises that are outside the territorial limits of the municipality of the fire department that employs the firefighter or fire chief for the purposes of fighting a fire or of providing rescue or emergency services on such lands or premises if,

- (a) in the opinion of the fire chief, the fire or emergency threatens persons, property or the environment within the territorial limits of the municipality served by the fire department; and
- (b) there is no fire department or other emergency response capability for the area in which the lands or premises are situated. 1997, c. 4, s. 13 (2).

Automatic aid

(3) A firefighter or such other person as may be authorized by the fire chief may, without a warrant, enter on lands or premises that are outside the territorial limits of the municipality of the fire department that employs the firefighter or fire chief for the purposes of fighting a fire or of providing rescue or emergency services on such lands or premises if the council of the municipality has entered into an automatic aid agreement or any other agreement under which the entry is permitted. 1997, c. 4, s. 13 (3).

Common law right of entry preserved

(4) Nothing in this section derogates from a firefighter's right of entry at common law. 1997, c. 4, s. 13 (4).

Entry where fire has occurred or is likely to occur

14. (1) The Fire Marshal or a fire chief may, without a warrant, enter on land or premises if,
- (a) a fire has occurred on the land or premises; or
 - (b) he or she has reason to believe that a substance or device that is likely to cause a fire may be situated on the land or premises.

Powers upon entry

- (2) Upon entering on land or premises under subsection (1), the Fire Marshal or a fire chief may,
- (a) close, and prevent entry to, the land or premises for the length of time necessary to complete the examination of the land or premises;
 - (b) in the case of an entry under clause (1) (a), remove from the land or premises, retain and examine any article or material, and take such samples or photographs, make videotapes and other images electronic or otherwise that in his or her opinion may be of assistance in determining the cause of the fire under investigation;
 - (c) make such excavations on the land or premises as he or she considers necessary;
 - (d) require that any machinery, equipment or device be operated, used or set in motion under specified conditions; and
 - (e) make any reasonable inquiry of any person, orally or in writing.

Entry to adjacent lands

(3) A person who enters on land or premises under subsection (1), may, without a warrant, enter on adjacent land or premises if the entry is necessary for the purposes of conducting an investigation into the cause of a fire or of determining whether a substance or device that is likely to cause fire is situated on the land or premises.

Same

(4) A person who enters on adjacent land or premises under subsection (3) may exercise any of the powers mentioned in subsection (2) on or with respect to the adjacent land or premises.

Use of force

(5) A person who enters land or premises under subsection (1) or (3) shall not use force to enter the land or premises.

Warrant authorizing entry

(6) A justice of the peace may issue a warrant authorizing the Fire Marshal or a fire chief named in the warrant to enter on land or premises and exercise any of the powers referred to in subsection (2) or (3) if the justice of the peace is satisfied on evidence under oath that there are reasonable grounds to believe that entry on the lands or premises is necessary for the purposes of conducting an investigation into the cause of a fire or of determining whether a substance or device that is likely to cause fire is situated on the land or premises and,

- (a) the Fire Marshal or fire chief has been denied entry to the land or premises or has been obstructed in exercising any other of those powers with respect to the land or premises; or

- (b) there are reasonable grounds to believe that the Fire Marshal or fire chief will be denied entry to the land or premises or obstructed in exercising any other of those powers with respect to the land or premises.

Execution and expiry of warrant

- (7) A warrant issued under subsection (6) shall,
 - (a) specify the times, which may be at any time during the day or night, during which the warrant may be carried out; and
 - (b) state when the warrant expires.

Extension of time

(8) A justice of the peace may extend the date on which a warrant expires for such additional periods as the justice of the peace considers necessary.

Use of force

(9) A person authorized by a warrant issued under subsection (6) to enter land or premises for the purpose of doing a thing may call on police officers as necessary and may use force as necessary to make the entry and do the thing.

Application without notice

(10) A justice of the peace may receive and consider an application for a warrant or extension of a warrant under this section without notice to the owner or occupant of the land or premises. 1997, c. 4, s. 14.

Immediate threat to life

15. (1) If the Fire Marshal, an assistant to the Fire Marshal or a fire chief has reasonable grounds to believe that a risk of fire poses an immediate threat to life, he or she may, without a warrant, enter on any land or premises and, for the purpose of removing or reducing the threat, may,

- (a) remove persons on the land or premises;
- (b) post a fire watch;
- (c) remove combustible or explosive material or anything that may constitute a fire menace;
- (c.1) dispose of any material or thing that was removed under clause (c), in accordance with any directives issued by the Fire Marshal;
- (d) eliminate ignition sources;
- (e) install temporary safeguards, including fire extinguishers and smoke alarms;
- (f) make minor repairs to existing fire safety systems;
- (g) do any other thing that the Fire Marshal, an assistant to the Fire Marshal or a fire chief has reasonable grounds to believe is urgently required to remove or reduce the threat to life. 1997, c. 4, s. 15 (1); 2002, c. 18, Sched. N, s. 3; 2016, c. 37, Sched. 9, s. 1.

Notice to owner

(2) A person who enters land or premises under subsection (1) shall promptly after exercising any powers under this section give notice thereof to the owner if the owner's whereabouts in Ontario are known. 1997, c. 4, s. 15 (2).

Notice to be posted

(3) The person who gives notice under subsection (2) shall post a copy of the notice on the land or premises. 1997, c. 4, s. 15 (3).

Contents of notice

- (4) The notice shall,
- (a) describe the location of the land or premises;
 - (b) state the reason for the entry; and
 - (c) state the things done under subsection (1) to remove or reduce the threat to life. 1997, c. 4, s. 15 (4).

Use of force

(5) A person who enters on land or premises under this section may call on police officers as necessary and may use force as necessary to make the entry. 1997, c. 4, s. 15 (5).

Assistance

16. A person who enters on land or premises under section 14 or 15 may call on any other persons he or she considers advisable to assist. 1997, c. 4, s. 16.

Identification

17. On the request of an owner or occupant of the land or premises, a person who enters on land or premises under section 14 or 15 shall identify himself or herself and shall explain the purpose of the entry. 1997, c. 4, s. 17.

PART VI INSPECTIONS

Interpretation

18. For the purposes of this Part, fire safety includes the following:

1. Safety from the risk that a fire, if started, would seriously endanger the health and safety of any person or the quality of the natural environment for any use that can be made of it.
2. Safety from the risk that the presence of unsafe levels of carbon monoxide on premises would seriously endanger the health and safety of any person. 2013, c. 14, s. 4.

Inspectors

19. (1) The Fire Marshal, an assistant to the Fire Marshal or a fire chief is an inspector for the purposes of this Part.

Inspections

(2) An inspector may, without a warrant, enter and inspect land and premises for the purposes of assessing fire safety.

Time of entry

(3) The power to enter and inspect land and premises without a warrant may be exercised at all reasonable times.

Assistance

(4) An inspector who enters land or premises under this section may take with him or her a police officer or such other person as he or she considers advisable to assist.

Identification

(5) On the request of an owner or occupant of the land or premises, an inspector shall identify himself or herself and shall explain the purpose of the entry.

Powers during inspection

- (6) An inspector conducting an inspection may,
- (a) examine a document or other thing that is relevant to the inspection;
 - (b) demand the production for inspection of a document or other thing that is relevant to the inspection;
 - (c) remove any thing that is relevant to the inspection for review and examination and remove any document that is relevant to the inspection for review and copying;
 - (d) conduct tests, take and remove samples, take photographs and make videotapes and other images, electronic or otherwise, that are relevant to the inspection;
 - (e) in order to produce a document in readable form, use data storage, information processing or retrieval devices or systems that are normally used in the premises being inspected; and
 - (f) question a person on matters relevant to the inspection.

Obligation to produce and assist

(7) If an inspector demands that a document or other thing be produced for inspection, the person who has custody of the document or thing shall produce it and, in the case of a document, shall on request provide any assistance that is reasonably necessary to interpret the document or to produce it in a readable form.

Document and thing removed from place

- (8) A document or other thing that has been removed from land or premises,
 - (a) shall be made available to the person from whom it was removed on request and at a time and place that are convenient for the person and for the inspector; and
 - (b) shall, if it is possible to return the document or thing to the person, be returned within a reasonable time.

Copy admissible in evidence

(9) A copy of a document that purports to be certified by an inspector as being a true copy of the original is admissible in evidence to the same extent as the original and has the same evidentiary value. 1997, c. 4, s. 19.

Warrant authorizing entry

20. (1) A justice of the peace may issue a warrant authorizing an inspector named in the warrant to enter on lands or premises and exercise any of the powers referred to in subsection 19 (6) if the justice of the peace is satisfied on evidence under oath that there are reasonable grounds to believe that entry on the lands or premises is necessary to assess fire safety and,

- (a) the inspector has been denied entry to the lands or premises or has been obstructed in exercising any other of those powers with respect to the lands or premises; or
- (b) there are reasonable grounds to believe that the inspector will be denied entry to the lands or premises or obstructed in exercising any other of those powers with respect to the lands or premises.

Execution and expiry of warrant

- (2) A warrant issued under subsection (1) shall,
 - (a) specify the times, which may be at any time during the day or night, during which the warrant may be carried out; and
 - (b) state when the warrant expires.

Extension of time

(3) A justice of the peace may extend the date on which a warrant expires for such additional periods as the justice of the peace considers necessary.

Use of force

(4) A person authorized under subsection (1) to enter land or premises for the purpose of doing a thing may call on police officers as necessary and may use force as necessary to make the entry and do the thing.

Assistance

(5) A person named in a warrant issued under subsection (1) may call on any other persons he or she considers advisable to execute the warrant.

Application without notice

(6) A justice of the peace may receive and consider an application for a warrant or extension of a warrant under this section without notice to the owner or occupant of the land or premises.

Identification

(7) On the request of an owner or occupant of the land or premises, a person who exercises a power conferred under subsection (1) shall identify himself or herself and shall explain the purpose of the entry.

Application

(8) Subsections 19 (7), (8) and (9) apply with respect to an inspection carried out under a warrant issued under this section. 1997, c. 4, s. 20.

Inspection orders

21. (1) An inspector who has carried out an inspection of land or premises under section 19 or 20 may order the owner or occupant of the land or premises to take any measure necessary to ensure fire safety on the land and premises and may for that purpose order the owner or occupant,

- (a) to remove buildings or structures from the land or premises;
- (b) to make structural and other repairs or alterations, including material alterations, to the buildings or structures;
- (c) to remove combustible or explosive material or any thing that may constitute a fire hazard;
- (d) to install and use specified equipment or devices as may be necessary to contain hazardous material on the land or premises and, in the event of a fire, to remove or transport the material;
- (e) to discontinue the manufacturing, production or fabrication of any material, device or other thing that creates or poses an undue risk of fire or explosion;
- (f) to do anything respecting fire safety including anything relating to the containment of a possible fire, means of egress, fire alarms and detection, fire suppression and the preparation of a fire safety plan;
- (g) to remedy any contravention of the fire code.

Same, closure of premises

(2) An inspector who has carried out an inspection of land or premises under section 19 or 20 may, with the approval of the Fire Marshal and upon such terms and conditions as the Fire Marshal considers proper,

- (a) order that the owner or occupant of the land or premises close the land or premises and prevent persons from entering thereon until such time as the corrective actions ordered under subsection (1) have been completed; or
- (b) if the inspector is of the opinion that it is necessary for the immediate protection of persons and property that the lands or premises be closed immediately, cause the land or premises to be closed immediately and persons on the premises to be removed and direct that the lands or premises remain closed and that the premises be vacated until such time as the corrective actions ordered under subsection (1) have been completed. 1997, c. 4, s. 21 (1, 2).

Same, electrical installations

(3) If, upon an inspection, it is determined that the electrical installations in a building or structure create or pose a risk of fire because of the inadequacy or want of repair of the installations and their wiring, the inspector may order that the electrical installations in the building or structure be inspected by a representative of the Electrical Safety Authority referred to in Part VIII of the *Electricity Act, 1998* and that the costs of the inspection be paid by the owner or occupant of the building or structure. 1997, c. 4, s. 21 (3); 1998, c. 15, Sched. E, s. 12.

Limitation on orders relating to structural repairs

22. (1) No inspector shall make an order under clause 21 (1) (b) requiring structural repairs or alterations to a building, structure or premises that was constructed in compliance with the building code established under the *Building Code Act, 1992* or under a predecessor to that Act and that continues to comply with that code as it existed at the time of construction, unless the order is necessary to ensure compliance with the provisions of the fire code relating to the retrofitting of existing buildings.

Repairs, etc., deemed not to contravene Building Code

(2) If repairs, alterations or installations are carried out in compliance with an order made under subsection 21 (1) or for the purposes of complying with the fire code, the repairs, alterations or installations shall be deemed not to contravene the building code established under the *Building Code Act, 1992*.

Copy of order

(3) An inspector who makes an order requiring repairs, alterations or installations to be made to a building, structure or premises shall furnish a copy of the order to the proper chief building official appointed under the *Building Code Act, 1992*. 1997, c. 4, s. 22.

Contents of order

23. An order made under subsection 21 (1) or (2) shall set out,
- (a) the reasons for the order;
 - (b) an explanation of the action required by the order;
 - (c) the time within which the owner or occupant must comply with the order; and
 - (d) the right to request a review of the order by the Fire Marshal under section 25 or, in the case of an order made by the Fire Marshal, the right of appeal to the Fire Safety Commission under section 26. 1997, c. 4, s. 23.

Service of order

24. (1) A copy of an order made under section 21 shall be served upon the owner and any occupant of the land and premises.

Same, multi-unit building

(2) In the case of an order respecting a building that contains two or more units intended for separate occupancy, the order shall be deemed to be served upon the occupants of the building if a copy of the order is posted in a conspicuous place in or outside the building.

Posting and service of order to close premises

(3) If an order is made under subsection 21 (2) requiring the closing of land or premises, a copy of the order shall be posted on the land or premises and shall be served on the owner of the lands or premises if the owner is in Ontario and his or her whereabouts are known. 1997, c. 4, s. 24.

Review of inspection order by Fire Marshal

25. (1) A person who considers himself or herself aggrieved by an order made by an inspector, other than the Fire Marshal, under subsection 21 (1) or (2) may, within 15 days after the order is served, submit a written request to the Fire Marshal for a review of the order. 1997, c. 4, s. 25 (1).

Extension of time

(2) The Fire Marshal may, upon application by a person referred to in subsection (1), extend the time for making a request under this section if he or she is satisfied that there are apparent grounds for granting relief to the person and that there are reasonable grounds for applying for the extension and may give directions that the Fire Marshal considers proper consequent upon the extension. 1997, c. 4, s. 25 (2); 2002, c. 18, Sched. N, s. 4 (1).

Same

(3) An application for an extension of time may be made either before or after the expiration of the time fixed in subsection (1) but shall be made within 30 days after a copy of the order under subsection 21 (1) or (2) is served. 1997, c. 4, s. 25 (3).

Powers of Fire Marshal

- (4) The Fire Marshal may,
- (a) refuse to consider the substance of the request and refer the matter to the Fire Safety Commission for a hearing under section 26; or
 - (b) confirm, amend or rescind the order or make such other order as he or she deems appropriate. 1997, c. 4, s. 25 (4).

No hearing required

(5) The Fire Marshal is not required to hold a hearing when conducting a review of an order under this section. 1997, c. 4, s. 25 (5).

Order stayed by application for review

(6) An application made under subsection (1) for a review operates as a stay of the order pending the outcome of the review. 2002, c. 18, Sched. N, s. 4 (2).

Lifting of stay

(7) The Fire Marshal may, upon request therefor by an inspector, which may be made without notice, order that the stay of the order be lifted if, in his or her opinion, the action is necessary in the interest of public safety. 2002, c. 18, Sched. N, s. 4 (2).

Appeal to Fire Safety Commission

26. (1) Any person who considers himself or herself aggrieved by an order made by the Fire Marshal under subsection 21 (1) or (2) or section 25 may appeal the order to the Fire Safety Commission. 1997, c. 4, s. 26 (1).

Time for filing appeal

(2) A notice of appeal from an order referred to in subsection (1) shall be filed with the Fire Safety Commission within 15 days after the order is served. 1997, c. 4, s. 26 (2).

Extension of time

(3) The Fire Safety Commission may, upon application by a person referred to in subsection (1), extend the time for appealing an order if it is satisfied that there are apparent grounds for granting the appeal and that there are reasonable grounds for applying for the extension and may give directions that it considers proper consequent upon the extension. 1997, c. 4, s. 26 (3); 2002, c. 18, Sched. N, s. 5 (1).

Same

(4) An application for an extension of time may be made either before or after expiration of the time fixed in subsection (2) but shall be made within 30 days after a copy of the order from which the appeal is made is served. 1997, c. 4, s. 26 (4).

Same

(4.1) Despite subsection (4), an application for an extension of time may be made at any time following the 30 days referred to in subsection (4) if the Fire Safety Commission is satisfied that there are reasonable grounds for accepting the application at that time. 2023, c. 12, Sched. 4, s. 2.

Hearing by Commission

(5) If an application is made under subsection (1) or if a matter is referred to the Fire Safety Commission by the Fire Marshal under clause 25 (4) (a), the Commission shall appoint a time for and hold the hearing. 1997, c. 4, s. 26 (5).

Powers of Commission

(6) The Fire Safety Commission may confirm, amend or rescind the order of the Fire Marshal or make such other order as the Commission deems appropriate. 1997, c. 4, s. 26 (6).

Order stayed by appeal

(7) An appeal under subsection (1) operates as a stay of the order pending the outcome of the appeal. 2002, c. 18, Sched. N, s. 5 (2).

Lifting of stay

(8) The Fire Safety Commission may, upon application therefor by an inspector or the Fire Marshal, which may be made without notice, order that the stay of the order be lifted if, in its opinion, the action is necessary in the interest of public safety. 2002, c. 18, Sched. N, s. 5 (2).

Appeal to Divisional Court

27. (1) Any party to the hearing before the Fire Safety Commission under section 26 may appeal from the decision of the Commission to the Divisional Court in accordance with the rules of court on any question that is not a question of fact alone.

Minister to be heard

(2) The Minister is entitled to be heard at a hearing under this section.

Powers of court on appeal

- (3) The judge who hears an appeal under this section may,
- (a) refer the matter back to the Commission for reconsideration by the Commission;
 - (b) confirm or alter the decision of the Commission; or
 - (c) make such other order as he or she sees fit, including an order that the Fire Marshal or an inspector do any act he or she is authorized to do under this Act. 1997, c. 4, s. 27.

PART VII

OFFENCES AND ENFORCEMENT

Subsequent offence

27.1 For the purposes of section 28 or 29, an offence for a contravention of this Act or the regulations is a subsequent offence if there has been a previous conviction for a contravention of this Act or the regulations, as the case may be, regardless of whether the offence that resulted in the previous conviction is based on a contravention of the same provision as the one on whose contravention the subsequent offence is based. 2019, c. 7, Sched. 29, s. 1.

Offences

28. (1) Every person is guilty of an offence if he or she,
- (a) hinders, obstructs or interferes with the Fire Marshal, an assistant to the Fire Marshal or a fire chief in the exercise of his or her powers and duties;
 - (b) prevents an inspector from entering land or premises under section 19 or 20, refuses to answer questions on matters relevant to the inspection or provides the inspector with information, on matters relevant to the inspection, that the person knows, or ought reasonably to know, to be false or misleading;
 - (c) subject to subsection (2) contravenes any provisions of this Act or the regulations; or

- (d) refuses or neglects to obey or carry out the directives of the Fire Marshal, an assistant to the Fire Marshal or a fire chief given under the authority of this Act. 1997, c. 4, s. 28 (1); 2002, c. 18, Sched. N, s. 6.

Same

- (2) A person who contravenes a provision in Part IX of this Act is not guilty of an offence. 1997, c. 4, s. 28 (2).

Penalty, individual

- (3) An individual convicted of an offence under subsection (1) is liable to a fine of not more than \$50,000 for a first offence and not more than \$100,000 for a subsequent offence, or to imprisonment for a term of not more than one year, or to both. 2019, c. 7, Sched. 29, s. 2 (1).

Same, corporation

- (4) A corporation convicted of an offence under subsection (1) is liable to a fine of not more than \$500,000 for a first offence and not more than \$1,500,000 for a subsequent offence. 2019, c. 7, Sched. 29, s. 2 (1).

Offence, director or officer of corporation

- (5) A director or officer of a corporation who knows that the corporation is violating or has violated a provision of the fire code is guilty of an offence and on conviction is liable to a fine of not more than \$50,000 for a first offence and not more than \$100,000 for a subsequent offence or to imprisonment for a term of not more than one year, or to both. 2005, c. 33, s. 8; 2019, c. 7, Sched. 29, s. 2 (2).

Liability of directors

- (6) Despite subsections (1) and (3), every director or officer of a corporation who knowingly commits an offence under subsection (1) is guilty of an offence and on conviction is liable to a fine of not more than \$50,000 for a first offence and not more than \$100,000 for a subsequent offence or to imprisonment for a term of not more than one year, or to both. 2005, c. 33, s. 8; 2019, c. 7, Sched. 29, s. 2 (2).

Offence, removal of posted notice

29. Any person who removes a copy of an order or of a notice posted in accordance with subsection 15 (3), 24 (2), (3) or 31 (4) without the approval of the Fire Marshal, an assistant to the Fire Marshal or a fire chief is guilty of an offence and on conviction is liable to a fine of not more than \$50,000 for a first offence and not more than \$100,000 for a subsequent offence or to imprisonment for a term of not more than one year, or to both. 2005, c. 33, s. 9; 2019, c. 7, Sched. 29, s. 3.

Offence, failure to comply with inspection order

30. Every person who fails to comply with an order made under section 21, 25 or 26 is guilty of an offence and on conviction is liable to a fine of not more than \$20,000 for every day during which the default continues, and the imposition or payment of the fine does not relieve the person from complying with the order. 2005, c. 33, s. 10.

Limitation period

30.1 No prosecution of an offence under this Act shall be commenced more than one year after the facts on which the prosecution is based first came to the knowledge of,

- (a) a firefighter who is employed in, or appointed to, the fire department of a municipality where the offence occurred or is alleged to have occurred; or
- (b) an assistant to the Fire Marshal who is responsible for the area where the offence occurred or is alleged to have occurred. 2019, c. 7, Sched. 29, s. 4.

Administrative penalties

Purpose

30.2 (1) The purpose of an administrative penalty imposed under this section is to promote compliance with the requirements established by this Act and the regulations. 2024, c. 2, Sched. 10, s. 1.

Order imposing administrative penalties

(2) If a prescribed authorized person is satisfied that a person is contravening or not complying with a prescribed provision of this Act or the regulations, the prescribed authorized person may, by order, impose an administrative penalty on the person in accordance with this section and the regulations. 2024, c. 2, Sched. 10, s. 1.

Content of order

(3) The order imposing an administrative penalty shall be in writing and shall include the following information:

- 1. The particulars of the contravention of this Act or the regulations.
- 2. The date and time by which payment of the administrative penalty must be made.
- 3. The amount payable and how payment of the administrative penalty may be made.
- 4. The right to request a review of the administrative penalty order. 2024, c. 2, Sched. 10, s. 1.

Maximum administrative penalty

(4) An administrative penalty for a contravention of this Act or the regulations shall not exceed the following amounts:

- 1. For a contravention by an individual, \$10,000 or such lesser amount as may be prescribed.
- 2. For a contravention by a person other than an individual, \$100,000 or such lesser amount as may be prescribed. 2024, c. 2, Sched. 10, s. 1.

Administrative penalty may be imposed with other measures

(5) An administrative penalty may be imposed alone or in conjunction with any other regulatory measure provided by this or any other Act, and may be imposed in conjunction with a fine imposed for the same infraction. 2024, c. 2, Sched. 10, s. 1.

Limitation

(6) An administrative penalty shall not be imposed more than one year after the contravention first came to the knowledge of the prescribed authorized person. 2024, c. 2, Sched. 10, s. 1.

Deadline to pay penalty

(7) A person who has received an order imposing an administrative penalty shall pay the penalty within 30 days after the day the order was served, subject to any stays of the order described in subsection (12). 2024, c. 2, Sched. 10, s. 1.

No right to be heard

(8) There is no right to be heard before an order imposing an administrative penalty is made. 2024, c. 2, Sched. 10, s. 1.

Right to review

(9) A person who has received an order imposing an administrative penalty may submit a request for a review of the order to a prescribed reviewer. 2024, c. 2, Sched. 10, s. 1.

Time to submit request for review

(10) A request for review under subsection (9) must be submitted to the reviewer within 30 days after the order is served. 2024, c. 2, Sched. 10, s. 1.

If review requested

(11) If a person who has received an order imposing an administrative penalty requests a review under subsection (9), the reviewer shall conduct the review in accordance with the regulations. 2024, c. 2, Sched. 10, s. 1.

Stay of order

(12) A review commenced under subsection (9) operates as a stay of the order until the matter is finally disposed of. 2024, c. 2, Sched. 10, s. 1.

Decision of reviewer

(13) After conducting the review, the reviewer may,

- (a) find that the person did not contravene the provision of this Act or the regulations specified in the order imposing the administrative penalty, and rescind the order imposing the administrative penalty;
- (b) find that the person did contravene the provision of this Act or the regulations specified in the order imposing the administrative penalty, and affirm the order imposing the administrative penalty; or
- (c) find that the person did contravene the provision of this Act or the regulations specified in the order imposing the administrative penalty but that the penalty is excessive in the circumstances or is, by its magnitude, punitive in nature having regard to all the circumstances and, in that case, the reviewer shall amend the order imposing the administrative penalty by reducing the amount of the penalty. 2024, c. 2, Sched. 10, s. 1.

Decision final

(14) The reviewer's decision is final. 2024, c. 2, Sched. 10, s. 1.

Payment after review

(15) If the reviewer finds under clause (13) (b) or (c) that a person has contravened the provision of this Act or the regulations specified in the order imposing the administrative penalty, the person shall pay the penalty required by the reviewer within 30 days after the day the decision was made. 2024, c. 2, Sched. 10, s. 1.

Enforcement by court

(16) If an order imposing an administrative penalty has been issued under this section to a person and the penalty is not paid by the applicable deadline, the order imposing the administrative penalty or the reviewer's decision, as the case may be, may be filed in the Superior Court of Justice and then may be enforced as if it were an order of that court. 2024, c. 2, Sched. 10, s. 1.

Postjudgment interest

(17) Section 129 of the *Courts of Justice Act* applies in respect of an order or decision filed in the Superior Court of Justice under subsection (16) and the date on which the order or decision is filed under subsection (19) is deemed to be the date of the order that is referred to in section 129 of the *Courts of Justice Act*. 2024, c. 2, Sched. 10, s. 1.

Municipal enforcement

(18) If an order imposing an administrative penalty has been issued under this section to a person who owns lands or premises in a municipality and the penalty is not paid within 15 days after the applicable deadline, the treasurer of the municipality may, and upon the request of its upper-tier municipality, if any, shall, add the administrative penalty to the tax roll for any property in the municipality for which all of the owners are responsible for paying the administrative penalty and collect it in the same manner as municipal taxes. 2024, c. 2, Sched. 10, s. 1.

Enforcement in territory without municipal status

(19) If an order imposing an administrative penalty has been issued under this section to a person who owns lands or premises in a territory without municipal organization and the penalty is not paid within 15 days after the applicable deadline, the prescribed authorized person who issued the order shall notify the Minister of Finance when,

- (a) the time limit for submitting a request for review of the order has expired and no review has been requested; or
- (b) a review of the order was requested and the reviewer confirmed or amended the order under clause (13) (b) or (c). 2024, c. 2, Sched. 10, s. 1.

Same

(20) When the Minister of Finance receives notice of an order under subsection (19), the amount of the administrative penalty may be collected under the *Provincial Land Tax Act, 2006* as if the amount was a tax imposed under that Act. 2024, c. 2, Sched. 10, s. 1.

Order to close premises, etc.

31. (1) The Fire Marshal, an assistant to the Fire Marshal or a fire chief may apply to the Ontario Court of Justice for an order under this section if,

- (a) a person who has been convicted of an offence under section 30 for failing to comply with an inspection order under section 21 or an order under section 25 or 26 has not complied with the order within 30 days of the conviction; or
- (b) a person who has been convicted of an offence under clause 28 (1) (c) for contravening a provision of the fire code has not ceased to contravene the provision or remedied the contravention within 30 days of the conviction. 1997, c. 4, s. 31 (1); 2002, c. 18, Sched. N, s. 7 (1).

No notice required

(2) An application under subsection (1) may be made without notice to the person referred to in clause (1) (a) or (b). 1997, c. 4, s. 31 (2).

Order

(3) Upon an application under subsection (1), a judge may, if in his or her opinion it is necessary in the interest of public safety, order that the Fire Marshal, assistant to the Fire Marshal or fire chief,

- (a) close access to, or remove, the building, structure or premises to which the order relates; or
- (b) remove or remove and dispose of any substance, material or thing from the building, structure or premises. 1997, c. 4, s. 31 (3); 2002, c. 18, Sched. N, s. 7 (2).

Application

(4) If an order is made under clause (3) (a), subsection 24 (3) applies with necessary modifications to the service and posting of the order. 1997, c. 4, s. 31 (4).

Compliance order

32. (1) The Fire Marshal, an assistant to the Fire Marshal or a fire chief may, in addition to any other rights he or she may have under this Act, apply to a judge of the Superior Court of Justice for an order,

- (a) requiring a person to comply with an inspection order made under section 21 or with an order made under section 25 or 26 if the person has failed to comply with the order; or
- (b) requiring a person to remedy any contravention of a provision of the fire code. 1997, c. 4, s. 32 (1); 2002, c. 18, Sched. N, s. 8.

Powers of judge

(2) Upon an application being made under subsection (1), a judge may make the order requested or such other order as he or she sees fit. 1997, c. 4, s. 32 (2).

Appeal

(3) An appeal lies to the Divisional Court from the judge's order. 1997, c. 4, s. 32 (3).

Fire Marshal to carry out inspection order

33. (1) If an order made under subsection 21 (1) or (2) or section 25 or 26 requires a thing to be done, an inspector may apply to the Fire Safety Commission for an order authorizing him or her to cause the thing to be done. 1997, c. 4, s. 33 (1).

Hearing

(2) Upon receiving an application under subsection (1), the Fire Safety Commission shall appoint a time for and hold a hearing. 1997, c. 4, s. 33 (2).

Consolidation of hearings

(3) If an application is made under this section and an appeal is made under section 26 in respect of the same order, the Fire Safety Commission may, if it considers it practical to do so, consolidate the hearings. 1997, c. 4, s. 33 (3).

Grounds for decision

(4) The Fire Safety Commission may authorize the inspector to cause to be done any thing required to be done by an order made under subsection 21 (1) or (2) or section 25 or 26 if,

- (a) the person required by the order to do the thing,
 - (i) has refused to comply with or is not complying with the order,
 - (ii) is not likely, in the Commission's opinion, to comply with the order promptly,
 - (iii) is not likely, in the Commission's opinion, to carry out the order competently, or
 - (iv) requests the assistance of the inspector in complying with the order; and
 - (b) in the Commission's opinion, failure to do the thing would seriously endanger the health or safety of any person or the quality of the natural environment for any use that can be made of it.
- 1997, c. 4, s. 33 (4).

Powers of Commission

(5) The Fire Safety Commission may, in addition to authorizing an inspector to cause to be done any thing required to be done by an order under subsection 21 (1) or (2) or section 25 or 26,

- (a) rescind the order; or
- (b) amend the order, or make such other order as the Commission deems should have been made under the relevant section, and order the inspector to do the thing in accordance with the amended order or the other order. 1997, c. 4, s. 33 (5).

Same

(6) If the order amended or made under clause (5) (b) provides for the removal of any combustible or explosive material or any thing that may constitute a fire hazard, the Fire Safety Commission may also authorize the inspector to dispose of the material or thing. 2002, c. 18, Sched. N, s. 9.

Warrant authorizing entry

34. (1) If a justice of the peace is satisfied on evidence under oath that there are reasonable grounds to believe that entry on certain land or premises is necessary for the purpose of doing a thing that the Fire Safety Commission has authorized to be done under section 33, the justice of the peace may issue a warrant authorizing the person named in the warrant to enter and do the thing on the land or premises including, where necessary, entering an adjacent property in order to access the property named in the warrant.

Execution and expiry of warrant

- (2) A warrant issued under subsection (1) shall,
- (a) specify the times, which may be at any time during the day or night, during which the warrant may be carried out; and
 - (b) state when the warrant expires.

Extension of time

(3) A justice of the peace may extend the date on which a warrant expires for such additional periods as the justice of the peace considers necessary.

Use of force

(4) A person authorized under subsection (1) to enter land or premises for the purpose of doing a thing may call on police officers as necessary and may use force as necessary to make the entry and do the thing.

Assistance

(5) A person named in a warrant issued under subsection (1) may call on any other persons he or she considers advisable to execute the warrant.

Application without notice

(6) A justice of the peace may receive and consider an application for a warrant or extension of a warrant under this section without notice to the owner or occupant of the land or premises.

Identification

(7) On the request of an owner or occupant of the land or premises, a person who exercises a power conferred under subsection (1) shall identify himself or herself and shall explain the purpose of the entry.

1997, c. 4, s. 34.

PART VIII

RECOVERY OF COSTS

Fire Marshal's order to pay costs

- 35.** (1) The Fire Marshal, a fire chief or an assistant to the Fire Marshal may issue ,
- (a) an order, to any person required by an order made under subsection 21 (1) or (2) or section 25 or 26 to do any thing, to pay the costs incurred by the Province of Ontario or a municipality in doing the thing in accordance with an authorization given under section 33;
 - (b) an order, to the owner or the person having control of land or premises, to pay the costs incurred by the Province of Ontario or a municipality in entering the land or premises and doing any thing under section 15; or
 - (c) an order, to the owner or occupant of land or premises, to pay the costs incurred by the Province of Ontario or a municipality in doing any thing to cause the land or premises to be closed immediately under clause 21 (2) (b). 2019, c. 7, Sched. 29, s. 5.

Idem

- (2) An order under subsection (1) to pay costs shall include,
- (a) a description of the things done for which the costs were incurred and a statement of the authority for doing the things;
 - (b) a detailed account of the costs incurred by the Province of Ontario or the municipality, as the case may be; and
 - (c) a direction that the person to whom the order is issued pay the costs to the Minister of Finance or the municipality, as the case may be. 1997, c. 4, s. 35 (2); 2002, c. 18, Sched. N, s. 10.

Appeal to Fire Safety Commission

36. (1) A person to whom an order to pay costs is issued may, by written notice served on the person who issued the order and on the Fire Safety Commission within 15 days after service on the person of a copy of the order, require a hearing by the Commission. 1997, c. 4, s. 36 (1).

Costs specified in order to pay may be increased by Commission

(2) At a hearing by the Fire Safety Commission on an order to pay costs, the Fire Marshal or an assistant to the Fire Marshal or a fire chief may, on reasonable notice to all parties, ask the Commission to amend the order by adding new items of cost or by increasing the amounts set out in the order. 1997, c. 4, s. 36 (2).

What Commission may consider at hearing

- (3) At a hearing by the Fire Safety Commission on an order to pay costs, the Commission shall consider only whether any of the costs specified in the order,
- (a) are unreasonable having regard to what was done; or
 - (b) do not relate to a thing,
 - (i) that the person to whom the order to pay costs was issued was required to do by an order made under subsection 21 (1) or (2) or section 25 or 26 or on any appeal from any such order,

- (i.1) that was done to cause land or premises to be closed immediately under clause 21 (2) (b), or
- (ii) that the Fire Marshal, an assistant to the Fire Marshal or a fire chief was authorized to do under section 15. 1997, c. 4, s. 36 (3); 2023, c. 12, Sched. 4, s. 3.

Appeal to Divisional Court

(4) Any party to a hearing by the Fire Safety Commission on an order to pay costs may appeal from the decision of the Commission to the Divisional Court on any question that is not a question of fact alone. 1997, c. 4, s. 36 (4).

Idem

(5) Subsections 27 (2) and (3) apply with necessary modification to an appeal under subsection (4). 1997, c. 4, s. 36 (5).

Enforcement of order to pay costs

37. (1) An order to pay costs may be filed with the Superior Court of Justice and enforced as if it were an order of the court. 1997, c. 4, s. 37 (1); 2002, c. 18, Sched. N, s. 11.

Interest

(2) Section 129 of the *Courts of Justice Act* applies in respect of an order filed under subsection (1) and, for the purpose, the date of filing shall be deemed to be the date of the order. 1997, c. 4, s. 37 (2).

Instructions for municipality to recover costs

38. (1) The Fire Marshal, a fire chief or an assistant to the Fire Marshal may inform a municipality as to the amount of any of the following expenses incurred by the municipality or the Province of Ontario that relate to things done in connection with land or premises in the municipality and instruct the municipality to recover the amounts:

1. Expenses incurred in carrying out an order made under subsection 31 (3) that relates to the land or premises.
2. Where an order to pay costs has been issued under section 35 to a person who owns the lands or premises in the municipality,
 - i. expenses incurred in doing anything done in accordance with an authorization given under section 33 to do things to the land or premises,
 - i.1 expenses incurred in doing anything to cause land or premises to be closed immediately under clause 21 (2) (b), or
 - ii. expenses incurred in doing a thing under section 15 in order to remove or reduce an immediate threat to life on the land or premises. 1997, c. 4, s. 38 (1); 2023, c. 12, Sched. 4, s. 4.

Municipal lien

(2) Upon receiving instructions under subsection (1), a municipality shall have a lien against the land or premises in respect of which expenses referred to in subsection (1) were incurred for the amount of the expenses. 1997, c. 4, s. 38 (2).

Lien

(3) The amount of any expenses referred to in subsection (1) shall have priority lien status, as described in section 1 of the *Municipal Act, 2001*, or section 3 of the *City of Toronto Act, 2006*, as the case may be, and shall be added by the treasurer of the municipality to the tax roll. 2002, c. 17, Sched. F, Table; 2006, c. 32, Sched. C, s. 20 (2).

Remitting costs to Province

(4) Subject to subsection (7), money collected in accordance with subsection (3) in order to recover expenses referred to in subsection (1) that were incurred by the Province of Ontario shall be paid by the municipality to the Minister of Finance; but the municipality may retain such amounts as may be reasonably attributable to the collection. 1997, c. 4, s. 38 (4).

Same

(5) A lien created under subsection (2) in favour of a municipality for amounts incurred by the Province of Ontario is not an estate or interest of the Crown within the meaning of clause 379 (7) (b) of the *Municipal Act, 2001* or clause 350 (7) (b) of the *City of Toronto Act, 2006*, as the case may be. 1997, c. 4, s. 38 (5); 2002, c. 17, Sched. F, Table; 2006, c. 32, Sched. C, s. 20 (3).

Interpretation

(6) In subsections (7) and (8),

“cancellation price” has the same meaning as in Part XI of the *Municipal Act, 2001* or Part XIV of the *City of Toronto Act, 2006*, as the case may be. 2006, c. 32, Sched. C, s. 20 (4).

Proceeds of tax sale

(7) If there is a sale of land under Part XI of the *Municipal Act, 2001* or Part XIV of the *City of Toronto Act, 2006*, as the case may be, and amounts are payable out of the proceeds to the Minister of Finance under this Act, the *Environmental Protection Act* or the *Ontario Water Resources Act*, those amounts shall not be paid until after payment of all other amounts payable out of the proceeds in respect of the cancellation price of the land. 1997, c. 4, s. 38 (7); 2002, c. 17, Sched. F, Table; 2006, c. 32, Sched. C, s. 20 (5).

Cancellation price

(8) Despite Part XI of the *Municipal Act, 2001* or Part XIV of the *City of Toronto Act, 2006*, the treasurer of a municipality may sell land under those Acts for less than the cancellation price, so long as the land is not sold for less than what the cancellation price would have been but for this Act, the *Environmental Protection Act* and the *Ontario Water Resources Act*, and the purchaser may be declared to be the successful purchaser under Part XI of the *Municipal Act, 2001* or Part XIV of the *City of Toronto Act, 2006*, as the case may be. 2006, c. 32, Sched. C, s. 20 (6).

Collection of costs

39. (1) The Fire Marshal, an assistant to the Fire Marshal or a fire chief may give written notice to the Minister of Finance of the amount of any of the following expenses incurred by the Province of Ontario that relate to things done in connection with the land and premises in territory without municipal organization, requesting the collection of the amount under the *Provincial Land Tax Act, 2006*:

1. Expenses incurred in carrying out an order made under subsection 31 (3) that relates to the land or premises.
2. Where an order to pay costs has been issued under section 35 to a person who owns the lands or premises in territory without municipal organization,
 - i. expenses incurred in doing anything done in accordance with an authorization given under section 33 to do things to the land or premises,
 - i.1 expenses incurred in doing anything to cause land or premises to be closed immediately under clause 21 (2) (b), or
 - ii. expenses incurred in doing a thing under section 15 in order to remove or reduce an immediate threat to life on the land or premises. 1997, c. 4, s. 39 (1); 2006, c. 33, Sched. Z.3, s. 12 (1); 2023, c. 12, Sched. 4, s. 5.

Same

(2) When the Minister of Finance receives notice of an amount under subsection (1), the amount may be collected under the *Provincial Land Tax Act, 2006* as if the amount was a tax imposed under that Act. 2006, c. 33, Sched. Z.3, s. 12 (2).

(3) REPEALED: 2006, c. 33, Sched. Z.3, s. 12 (2).

Expenses related to work on other lands

40. The amount to be recovered by way of municipal taxes against land or premises under section 38 or 39 shall include all expenses incurred in doing any thing in connection with the land or premises that the Fire Marshal, an assistant to the Fire Marshal or a fire chief was authorized to do under an order or authorization referred to in subsection 38 (1), whether or not the thing was done on the land or premises. 1997, c. 4, s. 40.

PART IX FIREFIGHTERS: EMPLOYMENT AND LABOUR RELATIONS

DEFINITIONS

Definitions

41. (1) In this Part,

“association” means an association of firefighters that is entitled under section 46 to represent and act as the bargaining agent for firefighters in a bargaining unit for the purposes of collective bargaining under this Part; (“association syndicale”)

“Board” means the Ontario Labour Relations Board; (“Commission”)

“collective agreement” means an agreement in writing between an employer and a bargaining agent that represents firefighters employed by the employer containing provisions respecting terms or conditions of employment or the rights, privileges or duties of the employer, the bargaining agent or the firefighters; (“convention collective”)

“employer” means a municipality, person or organization that employs firefighters; (“employeur”)

“firefighter” means a person regularly employed on a salaried basis in a fire department and assigned to fire protection services and includes technicians but does not include a volunteer firefighter; (“pompier”)

“Minister” means the Minister of Labour; (“ministre”)

“trade union” means a trade union as defined in the *Labour Relations Act, 1995*. (“syndicat”) 1997, c. 4, s. 41 (1); 2015, c. 34, Sched. 1, s. 2.

Managers not firefighters

- (2) For the purposes of this Part, a person shall be deemed not to be a firefighter if,
- (a) in the opinion of the Board, he or she exercises managerial functions or is employed in a confidential capacity in matters relating to labour relations; or
 - (b) he or she is a person designated under subsection 54 (4). 1997, c. 4, s. 41 (2).

Volunteer firefighter work

(2.1) For greater certainty, references in sections 46.4 and 52.2 to a volunteer firefighter include a person who is also regularly employed on a salaried basis in a fire department and assigned to fire protection services, including a technician, in a different fire service, regardless of whether the services provided as a volunteer firefighter are within the jurisdiction, or otherwise adversely affects the interests, of any association. 2018, c. 17, Sched. 18, s. 1.

Application of *LRA, 1995*

(3) Sections 110 to 112, subsections 114 (1) and (3), sections 116 to 118 and 120 to 123 of the *Labour Relations Act, 1995* apply with necessary modifications to proceedings before the Board under this Act and the Board may exercise the powers under those provisions as if they were part of this Act. 1997, c. 4, s. 41 (3).

Transition

(4) An agreement made under section 5 of the *Fire Departments Act*, or a decision or award made under section 6 of that Act, that is in effect immediately before the day this Part comes into force shall, on and after that day, remain in effect and be deemed to be a collective agreement to which this Part applies. 1997, c. 4, s. 41 (4).

Same

(5) If a request to bargain was made under section 5 of the *Fire Departments Act* before the day this Part comes into force, this Part applies as if notice had been given under section 47 on that day. 1997, c. 4, s. 41 (5).

WORKING CONDITIONS

Strike and lock outs

42. (1) No firefighter shall strike and no employer of firefighters shall lock them out.

Definitions

(2) In this section,

“lock-out” and “strike” have the same meaning as in the *Labour Relations Act, 1995*. 1997, c. 4, s. 42.

Hours of work

43. (1) In every municipality having a population of not less than 10,000, the firefighters assigned to firefighting duties shall work according to,

- (a) the two-platoon system where the firefighters are divided into two platoons, the hours of work of which shall be,
 - (i) for each platoon 24 consecutive hours on duty followed immediately by 24 consecutive hours off duty, or
 - (ii) for one platoon in day-time ten consecutive hours on duty followed immediately by 14 consecutive hours off duty and for the other platoon in night-time 14 consecutive hours on duty followed immediately by 10 consecutive hours off duty,and the platoons shall alternate at least every two weeks from night work to day work and vice versa;
- (b) the three-platoon system where the firefighters are divided into three platoons, the hours of work of which shall be eight consecutive hours on duty followed immediately by 16 consecutive hours off duty, and the platoons shall rotate in their periods of duty and time off as may be arranged for the purpose of changing shifts at least every two weeks; or
- (c) any other system of platoons or hours of work under which the maximum hours of work or hours on duty on average in any work week are not more than 48 hours.

Other personnel

(2) Firefighters assigned to duties other than fire-fighting duties shall work such hours as are determined, but in no case shall such hours of work exceed the average work week of the other full-time firefighters.

Maximum hours

(3) No firefighters shall be required to be on duty on average in any work week more than 48 hours.

Weekly day off duty

(4) Every firefighter shall be off duty for one full day of 24 hours in every calendar week, but where a two-platoon system or a three-platoon system is in operation, the 24 hours release at the change of platoons shall not be regarded as a day off duty for the purposes of this section.

Time off duty

(5) Nothing in this Part prohibits any municipality from granting the firefighters more than one day off duty in every calendar week.

Off duty

(6) The hours off duty of firefighters shall be free from fire department duties.

Exception for emergencies

(7) Despite subsections (1) to (6), the fire chief may call in off-duty firefighters if, as a result of a major emergency, the fire department needs the services of more firefighters than are on duty. 1997, c. 4, s. 43.

Termination of employment

44. (1) The employment of a firefighter may be terminated upon seven days' notice. The notice must be accompanied by written reasons for the termination.

Independent review

(2) A firefighter who has received a notice of termination of employment may require a review of the termination to be conducted, unless a collective agreement provides for another review mechanism.

Same

(3) If a review of a termination is required under subsection (2), the municipality in which the firefighter is employed shall appoint a person who is not employed in the fire department to conduct the review.

Review, no hearing

(4) A person appointed to conduct a review shall conduct the review within 10 days after the day the review is required. The person is not required to hold a hearing in conducting a review under this section.

Decision

(5) A person conducting a review of a termination under this section may uphold the termination, order that the firefighter be returned to duties under such conditions as may be specified in the order or make such other order as he or she considers proper.

Probationary period

(6) The employment of a firefighter may be terminated without cause at any time during the first 12 months, unless a collective agreement provides otherwise. Subsections (2) to (5) do not apply with respect to a termination during that period. 1997, c. 4, s. 44.

ESTABLISHMENT OF BARGAINING RIGHTS BY CERTIFICATION

Bargaining unit

45. (1) The firefighters employed in a fire department constitute a bargaining unit for the purposes of collective bargaining under this Act.

Exclusion

(2) The bargaining unit shall not include persons who are deemed not to be firefighters under subsection 41 (2). 1997, c. 4, s. 45.

Bargaining agent

46. (1) The majority of firefighters in a bargaining unit may request an association of firefighters to represent them and act as their bargaining agent for purposes of collective bargaining under this Part.

Transition

(2) An association of firefighters that, immediately before the day this Part comes into force, was a party to, or bound by, an agreement made under section 5 of the *Fire Departments Act* or was bound by the decision or award of a board of arbitration under section 6 of that Act shall, on and after the day this Part comes into force and until such time as a new bargaining agent is requested under subsection (1), be deemed to be the bargaining agent for the firefighters in the bargaining unit. 1997, c. 4, s. 46.

UNFAIR LABOUR PRACTICES

Duty of fair representation by association

46.1 (1) An association shall not act in a manner that is arbitrary, discriminatory or in bad faith in the representation of any of the firefighters in the bargaining unit it represents, whether or not they are members of the association. 2015, c. 34, Sched. 1, s. 3.

Transition

(2) This section does not apply in respect of any conduct or events that occurred before December 1, 2011. 2011, c. 13, s. 1.

Employers not to interfere with associations

46.2 No employer or employers' organization and no person acting on behalf of an employer or an employers' organization shall participate in or interfere with the formation, selection or administration of an association or the representation of firefighters by an association or contribute financial or other support to an association, but nothing in this section shall be deemed to deprive an employer of the employer's freedom to express views so long as the employer does not use coercion, intimidation, threats, promises or undue influence. 2015, c. 34, Sched. 1, s. 4.

Associations not to interfere with employers' organizations

46.3 No association and no person acting on behalf of an association shall participate in or interfere with the formation or administration of an employers' organization or contribute financial or other support to an employers' organization. 2015, c. 34, Sched. 1, s. 4.

Employers not to interfere with firefighters' rights

46.4 No employer, employers' organization or person acting on behalf of an employer or an employers' organization,

- (a) shall refuse to employ or to continue to employ a person, or discriminate against a person in regard to employment or any term or condition of employment because the person was or is a member of an association or was or is exercising any other rights under this Part;
- (b) shall impose any condition in a contract of employment or propose the imposition of any condition in a contract of employment that seeks to restrain a firefighter or a person seeking employment from becoming a member of a trade union or exercising any other rights under this Part;
- (c) shall seek by threat of dismissal, or by any other kind of threat, or by the imposition of a pecuniary or other penalty, or by any other means to compel a firefighter to become or refrain from becoming or to continue to be or to cease to be a member or officer or representative of an association or to cease to exercise any other rights under this Part; or
- (d) shall refuse to employ a person as a firefighter, refuse to assign a person to fire protection services or discharge a firefighter because the person has worked, is working or intends to work as a volunteer firefighter. 2015, c. 34, Sched. 1, s. 4; 2018, c. 17, Sched. 18, s. 2.

No interference with bargaining rights

46.5 (1) No employer, employers' organization or person acting on behalf of an employer or an employers' organization shall, so long as an association represents the firefighters in a bargaining unit, bargain with or enter into a collective agreement with any person or another association, trade union or council of trade unions on behalf of or purporting, designed or intended to be binding upon the firefighters in the bargaining unit or any of them. 2015, c. 34, Sched. 1, s. 4.

Same

(2) No person, association, trade union or council of trade unions shall, so long as another association continues to be entitled to represent the firefighters in a bargaining unit, bargain with or enter into a collective agreement with an employer or an employers' organization on behalf of or purporting, designed or intended to be binding upon the firefighters in the bargaining unit or any of them. 2015, c. 34, Sched. 1, s. 4.

Intimidation and coercion

46.6 No person, association or employers' organization shall seek by intimidation or coercion to compel any person to become or refrain from becoming or to continue to be or to cease to be a member of an association or of an employers' organization or to refrain from exercising any other rights under this Part or from performing any obligations under this Part. 2015, c. 34, Sched. 1, s. 4.

Persuasion during working hours

46.7 Nothing in this Part authorizes any person to attempt at the place at which a firefighter works to persuade the firefighter during the firefighter's working hours to become or refrain from becoming or continuing to be a member of an association or a trade union. 2015, c. 34, Sched. 1, s. 4.

Protection of witnesses' rights

46.8 (1) No employer, employers' organization or person acting on behalf of an employer or employers' organization shall,

- (a) refuse to employ or continue to employ a person;
- (b) threaten dismissal or otherwise threaten a person;
- (c) discriminate against a person in regard to employment or a term or condition of employment; or
- (d) intimidate or coerce or impose a pecuniary or other penalty on a person,

because of a belief that the person may testify in a proceeding under this Part or because the person has made or is about to make a disclosure that may be required in a proceeding under this Part or because the person has made an application or filed a complaint under this Act or has participated in or is about to participate in a proceeding under this Part. 2015, c. 34, Sched. 1, s. 4.

Same

(2) No association or person acting on behalf of an association shall,

- (a) discriminate against a person in regard to employment or a term or condition of employment; or
- (b) intimidate or coerce or impose a pecuniary or other penalty on a person,

because of a belief that the person may testify in a proceeding under this Part or because the person has made or is about to make a disclosure that may be required in a proceeding under this Part or because the person has made an application or filed a complaint under this Act or has participated in or is about to participate in a proceeding under this Part. 2015, c. 34, Sched. 1, s. 4.

Removal, etc., of posted notices

46.9 No person shall wilfully destroy, mutilate, obliterate, alter, deface or remove or cause to be destroyed, mutilated, obliterated, altered, defaced or removed any notice that the Board has required to be posted during the period that the notice is required to be posted. 2015, c. 34, Sched. 1, s. 4.

COLLECTIVE BARGAINING

Notice of desire to bargain

47 (1) If no collective agreement is in effect, a bargaining agent acting pursuant to subsection 46 (1), shall give written notice to the employer of its desire to bargain with a view to making a collective agreement.

Same

(2) The employer or the bargaining agent may give written notice of its desire to bargain with a view to making a collective agreement within the period of 90 days before the expiry date set out in the collective

agreement or, if no expiry date is set out in the agreement, within the period of 90 days before the expiry date referred to in subsection 52 (1). 1997, c. 4, s. 47.

Obligation to bargain

48 (1) The employer and the bargaining agent shall meet within 15 days after the notice is given, or within such longer period as they may agree upon, and they shall bargain in good faith and make every reasonable effort to make a collective agreement.

Parties

(2) The employer and the bargaining agent are the parties to the bargaining. 1997, c. 4, s. 48.

Referral to arbitration

49 Where, after bargaining under section 48, either of the parties is satisfied that an agreement cannot be reached, the party may, by notice in writing to the other party and to the Minister, require all matters remaining in dispute to be decided by arbitration in accordance with this Part. 2016, c. 37, Sched. 9, s. 2.

50 REPEALED: 2016, c. 37, Sched. 9, s. 2.

Arbitrator

50.1 (1) Within seven days after the day upon which notice is given under section 49, the parties shall appoint a person as arbitrator and forthwith notify the Minister of the name and address of the person appointed. 2018, c. 17, Sched. 18, s. 3.

Extension of time

(2) The parties, by mutual agreement in writing, may extend the period of seven days mentioned in subsection (1) for one further period of seven days. 2018, c. 17, Sched. 18, s. 3.

Notice to Minister

(3) If the parties extend the period under subsection (2), they shall inform the Minister. 2018, c. 17, Sched. 18, s. 3.

Appointment by Minister

(4) If the parties fail to notify the Minister within the time set out in subsection (1) or the time extended under subsection (2), the Minister shall forthwith appoint as arbitrator a person who is, in the opinion of the Minister, qualified to act and notify the parties of the name and address of the person appointed. 2018, c. 17, Sched. 18, s. 3.

Replacement

(5) If the person appointed as arbitrator is unable or unwilling to perform his or her duties so as to make an award, the Minister shall forthwith appoint another person as arbitrator and the arbitration process shall begin anew. 2018, c. 17, Sched. 18, s. 3.

Restriction

(6) No person shall be appointed as an arbitrator under this Act who has any pecuniary interest in the matters coming before him or her or who is acting or has, within a period of six months preceding the date of his or her appointment, acted as solicitor, counsel or agent of either of the parties. 2018, c. 17, Sched. 18, s. 3.

Not subject to judicial review

(7) It is conclusively determined that the appointment of an arbitrator made under this section is properly made, and no application shall be made to question the appointment or to prohibit or restrain any of the arbitrator's proceedings. 2018, c. 17, Sched. 18, s. 3.

Selection of method

50.2 (1) If the arbitrator is appointed by the parties, the parties shall select the method of arbitration. 2018, c. 17, Sched. 18, s. 3.

Same, mediation-arbitration

(2) The method of arbitration shall be mediation-arbitration unless the parties select a different method of arbitration. 2018, c. 17, Sched. 18, s. 3.

Selection by Minister

(3) If the arbitrator is appointed by the Minister, the Minister shall select the method of arbitration. 2018, c. 17, Sched. 18, s. 3.

Same, mediation-arbitration

(4) The Minister shall select mediation-arbitration as the method of arbitration unless the Minister is of the view that another method is more appropriate. 2018, c. 17, Sched. 18, s. 3.

Same, final offer selection

(5) The Minister shall not select final offer selection without mediation as the method of arbitration. 2018, c. 17, Sched. 18, s. 3.

Same, mediation-final offer selection

(6) The Minister shall not select mediation-final offer selection as the method of arbitration unless the Minister, in his or her sole discretion, selects that method because he or she is of the view that it is the most appropriate method having regard to the nature of the dispute. 2018, c. 17, Sched. 18, s. 3.

Procedure

Time and place of proceedings

50.3 (1) Subject to subsection (2), the arbitrator shall fix the time and place of the proceedings and shall notify the Minister of the time and place and the Minister shall notify the parties. 2018, c. 17, Sched. 18, s. 3.

When proceedings commence

(2) The arbitrator shall begin the proceedings within 30 days after he or she is appointed. 2018, c. 17, Sched. 18, s. 3.

Order to expedite proceedings

(3) Where an arbitrator has been appointed, the arbitrator shall keep the Minister advised of the progress of the arbitration and where the Minister is advised that an award has not been rendered within the time set out in subsection 50.5 (5) or within the time extended under subsection 50.5 (6), the Minister may, after consulting the parties and the arbitrator, issue whatever order he or she considers necessary in the circumstances to ensure that an award will be rendered within a reasonable time. 2018, c. 17, Sched. 18, s. 3.

Written submissions

(4) The parties shall file written submissions on all matters remaining in dispute with the arbitrator before the date set by the arbitrator. 2018, c. 17, Sched. 18, s. 3.

Same, time

(5) The date set by the arbitrator in subsection (4) must be before the day the first hearing begins. 2018, c. 17, Sched. 18, s. 3.

Time for submission of information

(6) If the method of arbitration is mediation-arbitration or mediation-final offer selection, the arbitrator may, after consulting with the parties, set a date after which a party may not submit information to the arbitrator unless,

- (a) the information was not available prior to the date;
 - (b) the arbitrator permits the submission of the information; and
 - (c) the other party is given an opportunity to make submissions concerning the information.
- 2018, c. 17, Sched. 18, s. 3.

Procedure

(7) Subject to section 50.2 and the other provisions of this section, the arbitrator shall determine his or her own procedure but shall give full opportunity to the parties to present their evidence and make their submissions. 2018, c. 17, Sched. 18, s. 3.

Notice of agreement to recommence

50.3.1 (1) If the arbitrator was appointed by the Minister, the parties may, at any time before the arbitrator renders an award, jointly serve written notice on the Minister that they have agreed that the arbitration should be recommenced before a different arbitrator. 2018, c. 17, Sched. 18, s. 3.

Termination of appointment

(2) If notice is served on the Minister under subsection (1), the appointment of the arbitrator is terminated. 2018, c. 17, Sched. 18, s. 3.

Effective date of termination

(3) The termination is effective on the day the Minister is served with the notice. 2018, c. 17, Sched. 18, s. 3.

Obligation to appoint

(4) Within seven days after the day the Minister is served with the notice, the parties shall jointly appoint, under subsection 50.1 (1), a person who agreed to act and sections 50.1 to 50.3 and this section apply with respect to the appointment. 2018, c. 17, Sched. 18, s. 3.

Powers

50.3.2 An arbitrator appointed under this Act has all the powers of a board of arbitration under the *Labour Relations Act, 1995*. 2018, c. 17, Sched. 18, s. 3.

Single arbitration of several disputes

50.4 (1) Where there are matters in dispute between parties to be decided by more than one arbitration in accordance with this Part, the parties may agree in writing that the matters in dispute shall be decided by one arbitrator. 1997, c. 21, Sched. A, s. 3 (1); 2018, c. 17, Sched. 18, s. 7.

Parties

(2) For the purposes of section 50.1, the bargaining agents for or on behalf of any firefighters to whom this Part applies shall be one party and the employers of such firefighters shall be the other party. 1997, c. 21, Sched. A, s. 3 (1); 2018, c. 17, Sched. 18, s. 4 (1).

Powers of arbitrator

(3) In an arbitration to which this section applies, the arbitrator may, in addition to the powers conferred upon an arbitrator by this Part,

- (a) make a decision on matters of common dispute between all of the parties; and
- (b) despite subsections 50.5 (1.1) and (1.2), refer matters of particular dispute to the parties concerned for further bargaining. 1997, c. 21, Sched. A, s. 3 (1); 2016, c. 37, Sched. 9, s. 4; 2018, c. 17, Sched. 18, s. 4 (2), 7.

Same

(4) Where matters of particular dispute are not resolved by further collective bargaining under clause (3) (b), the arbitrator shall decide the matters. 1997, c. 21, Sched. A, s. 3 (1); 2018, c. 17, Sched. 18, s. 7.

Duty of arbitrator

50.5 (1) The arbitrator shall examine into and decide on matters that are in dispute and any other matters that appear to the arbitrator necessary to be decided in order to conclude a collective agreement between the parties. 1997, c. 21, Sched. A, s. 3 (1); 2018, c. 17, Sched. 18, s. 7.

Same

(1.1) Subject to subsection (1.2), in making its decision, the arbitrator shall not refer a matter that is in dispute back to the parties for further bargaining. 2016, c. 37, Sched. 9, s. 5; 2018, c. 17, Sched. 18, s. 7.

Same

(1.2) The arbitrator may refer a matter that is in dispute back to the parties for further bargaining if,

- (a) the arbitrator has not issued its decision; and
- (b) the parties agree. 2016, c. 37, Sched. 9, s. 5; 2018, c. 17, Sched. 18, s. 7.

Same

(1.3) For greater certainty, nothing in subsection (1.1) prevents the arbitrator from referring matters concerning the implementation of its decision back to the parties. 2016, c. 37, Sched. 9, s. 5; 2018, c. 17, Sched. 18, s. 7.

Criteria

(2) In making a decision, the arbitrator shall take into consideration all factors the arbitrator considers relevant, including the following criteria:

1. A comparison, as between the employees and other employees in the public and private sectors, of the terms and conditions of employment.
2. A comparison of collective bargaining settlements reached in the same municipality and in comparable municipalities, including those reached by employees in bargaining units to which the *Labour Relations Act, 1995* applies, having regard to the relative economic health of the municipalities.
3. The economic health of Ontario and the municipality, including, but not limited to, changes to labour market characteristics, property tax characteristics and socio-economic characteristics.
4. The employer's ability to attract and retain qualified firefighters.
5. The interest and welfare of the community served by the fire department.
6. Any local factors affecting the community. 2018, c. 17, Sched. 18, s. 5 (1).

Restriction

(3) Nothing in subsection (2) affects the powers of the arbitrator. 1997, c. 21, Sched. A, s. 3 (1); 2018, c. 17, Sched. 18, s. 7.

Arbitrator to remain seized of matters

(4) The arbitrator shall remain seized of and may deal with all matters in dispute between the parties until a collective agreement is in effect between the parties. 1997, c. 21, Sched. A, s. 3 (1); 2018, c. 17, Sched. 18, s. 7.

Reasons

(4.1) When the arbitrator gives a decision, the arbitrator shall provide written reasons upon the request of either party. 2018, c. 17, Sched. 18, s. 5 (2).

Same

(4.2) The written reasons must clearly demonstrate that the arbitrator has considered the criteria on which a party has made submissions under subsection 50.3 (4), and may deal with other matters as the arbitrator considers appropriate. 2018, c. 17, Sched. 18, s. 5 (2).

Time for decision

(5) The arbitrator shall give a decision within 90 days after his or her appointment. 2018, c. 17, Sched. 18, s. 5 (3).

Extension

(6) The parties may agree to extend the time described in subsection (5), either before or after the time has passed. 1997, c. 21, Sched. A, s. 3 (1).

Remuneration and expenses

(7) Each party shall pay one half of the arbitrator's remuneration and expenses. 2018, c. 17, Sched. 18, s. 5 (4).

Enforcement of arbitration decisions

(8) Where a party or firefighter has failed to comply with any of the terms of the decision of an arbitrator, any party or firefighter affected by the decision may file in the Superior Court of Justice a copy of the decision, exclusive of the reasons therefor, whereupon the decision shall be entered in the same way as a judgment or order of that court and is enforceable as such. 1997, c. 21, Sched. A, s. 3 (1); 2002, c. 18, Sched. N, s. 12; 2018, c. 17, Sched. 18, s. 5 (5).

Non-application

(9) The *Arbitration Act, 1991* and the *Statutory Powers Procedure Act* do not apply with respect to an arbitration under this Part. 1997, c. 21, Sched. A, s. 3 (1).

Where agreement reached

50.6 (1) Where, during the bargaining under this Part or during the proceedings before the arbitrator, the parties agree on all the matters to be included in a collective agreement, they shall put them in writing and shall execute the document, and thereupon it constitutes a collective agreement. 1997, c. 21, Sched. A, s. 3 (1); 2018, c. 17, Sched. 18, s. 7.

Failure to make agreement

(2) If the parties fail to put the terms of all the matters agreed upon by them in writing or if having put the terms of their agreement in writing either of them fails to execute the document within seven days after it was executed by the other of them, they shall be deemed not to have made a collective agreement and the provisions of sections 49 to 50.5 apply, with necessary modifications. 1997, c. 21, Sched. A, s. 3 (1).

Decision of arbitrator

(3) Where, during the bargaining under this Part or during the proceedings before the arbitrator, the parties have agreed upon some matters to be included in the collective agreement and have notified the arbitrator in writing of the matters agreed upon, the decision of the arbitrator shall be confined to the matters not agreed upon by the parties and to such other matters that appear to the arbitrator necessary to be decided to conclude a collective agreement between the parties. 1997, c. 21, Sched. A, s. 3 (1); 2018, c. 17, Sched. 18, s. 7.

Same

(4) Where the parties have not notified the arbitrator in writing that, during the bargaining under this Part or during the proceedings before the arbitrator, they have agreed upon some matters to be included in the collective agreement, the arbitrator shall decide all matters in dispute and such other matters that appear to the arbitrator necessary to be decided to conclude a collective agreement between the parties. 1997, c. 21, Sched. A, s. 3 (1); 2018, c. 17, Sched. 18, s. 7.

Execution of agreement

(5) Within five days of the date of the decision of the arbitrator or such longer period as may be agreed upon in writing by the parties, the parties shall prepare and execute a document giving effect to the decision of the arbitrator and any agreement of the parties, and the document thereupon constitutes a collective agreement. 1997, c. 21, Sched. A, s. 3 (1); 2018, c. 17, Sched. 18, s. 7.

Preparation of agreement by arbitrator

(6) If the parties fail to prepare and execute a document in the form of a collective agreement giving effect to the decision of the arbitrator and any agreement of the parties within the period mentioned in subsection (5), the parties or either of them shall notify the arbitrator in writing forthwith, and the arbitrator shall prepare a document in the form of a collective agreement giving effect to the decision of the arbitrator and any agreement of the parties and submit the document to the parties for execution. 1997, c. 21, Sched. A, s. 3 (1); 2018, c. 17, Sched. 18, s. 6, 7.

Failure to execute agreement

(7) If the parties or either of them fail to execute the document prepared by the arbitrator within a period of five days from the day of its submission by the arbitrator to them, the document shall come into effect as though it had been executed by the parties and the document thereupon constitutes a collective agreement. 1997, c. 21, Sched. A, s. 3 (1); 2018, c. 17, Sched. 18, s. 7.

Delegation

50.7 (1) The Minister may delegate in writing to any person the Minister's power to make an appointment, order or direction under this Act. 1997, c. 21, Sched. A, s. 3 (1); 2002, c. 18, Sched. N, s. 13 (1).

Proof of appointment

(2) An appointment, an order or a direction made under this Act that purports to be signed by or on behalf of the Minister shall be received in evidence in any proceeding as proof, in the absence of evidence to the contrary, of the facts stated in it without proof of the signature or the position of the person appearing to have signed it. 1997, c. 21, Sched. A, s. 3 (1); 2002, c. 18, Sched. N, s. 13 (2).

Existing proceedings discontinued

50.8 (1) Proceedings before a board of arbitration under this Part or a predecessor to this Act in which a hearing was commenced before the date on which subsection 3 (1) of the *Public Sector Dispute Resolution Act, 1997* comes into force are terminated and any decision in such proceedings is void.

Exception, completed proceedings

(2) This section does not apply with respect to proceedings in which a hearing was commenced before June 3, 1997 if,

- (a) a final decision is issued on or before June 3, 1997; or
- (b) a final decision is issued after June 3, 1997 and the decision is served before the date on which subsection 3 (1) of the *Public Sector Dispute Resolution Act, 1997* comes into force.

Exception, by agreement

(3) This section does not apply if the parties agree in writing after the date on which subsection 3 (1) of the *Public Sector Dispute Resolution Act, 1997* comes into force to continue the proceedings. 1997, c. 21, Sched. A, s. 3 (1).

Transition

Referred to arbitration

50.9 (1) Sections 50, 50.2, 50.4 and 50.5, as they read immediately before the repeal date, continue to apply to parties who were referred to arbitration under section 50 before the repeal date. 2016, c. 37, Sched. 9, s. 6.

Requested appointment of conciliation officer

(2) Sections 49 and 50 and subsection 50.2 (1), as they read immediately before the repeal date, continue to apply to parties if either party made a request for the appointment of a conciliation officer under subsection 49 (1) before the repeal date. 2016, c. 37, Sched. 9, s. 6.

Definition — repeal date

(3) In this section,

“repeal date” means the day that section 6 of Schedule 9 to the *Building Ontario Up for Everyone Act (Budget Measures), 2016* comes into force. 2016, c. 37, Sched. 9, s. 6.

Transition

Board of arbitration

50.10 If, on or after November 15, 2018, notice under section 49 is given, and on the day the *Restoring Trust, Transparency and Accountability Act, 2018* receives Royal Assent, the hearing has not commenced, sections 50.1 to 50.6 apply to the arbitration and if a board of arbitration was appointed, the chair continues as the arbitrator and the appointments of the other members of the board are terminated. 2018, c. 17, Sched. 18, s. 8.

OPERATION OF COLLECTIVE AGREEMENTS

Collective agreement

51. (1) Every collective agreement must be set out in writing.

Binding effect

(2) A collective agreement is binding upon the employer, the bargaining agent and the members of the bargaining unit.

Commencement

(3) A collective agreement comes into effect according to its terms. If the agreement does not provide for its commencement date, it comes into effect at the beginning of the first fiscal period in respect of which the employer budgets for expenditures under the agreement.

Same

(4) Despite subsection (3), if a collective agreement provides that it comes into effect on a specified day and that day occurs before the beginning of the first fiscal period in respect of which the employer can budget for expenditures under the agreement, the agreement shall be deemed to provide that it comes into effect at the beginning of that first fiscal period. 1997, c. 4, s. 51.

Minimum term of collective agreements

52. (1) If a collective agreement does not provide for its term of operation or provides for its operation for an unspecified term or for a term of less than one year, it shall be deemed to provide for its operation for a term of one year from the date that it commenced to operate.

Extension of term of collective agreement

(2) Despite subsection (1), the parties may, in a collective agreement or otherwise and before or after the collective agreement has ceased to operate, agree to continue the operation of the collective agreement or any of its provisions for a period of less than one year while they are bargaining for its renewal with or without modifications or for a new agreement and the continuation of the collective agreement may be terminated by either party upon 30 days notice to the other party.

Early termination of collective agreements

(3) A collective agreement shall not be terminated by the parties before it ceases to operate in accordance with its provisions or this Act without the consent of the Board on the joint application of the parties.

Revision by mutual consent

(4) Nothing in this section prevents the revision by mutual consent of the parties at any time of any provision of a collective agreement other than a provision relating to its term of operation. 1997, c. 4, s. 52.

Deduction and remittance of association dues

52.1 (1) Subject to section 52.3, where an association so requests, there shall be included in the collective agreement between the association and the employer of the firefighters a provision requiring the employer to deduct from the wages of each firefighter in the unit affected by the collective agreement, whether or not the firefighter is a member of the association, the amount of the regular association dues and to remit the amount to the association, forthwith. 2015, c. 34, Sched. 1, s. 5.

Definition

(2) In subsection (1),

“regular association dues” means,

- (a) in the case of a firefighter who is a member of an association, the dues uniformly and regularly paid by a member of the association in accordance with the constitution and by-laws of the association, and
- (b) in the case of a firefighter who is not a member of an association, the dues referred to in clause (a), excluding any amount in respect of pension, superannuation, sickness insurance or any other benefit available only to members of the association. 2015, c. 34, Sched. 1, s. 5.

Permissive provisions

52.2 (1) Despite anything in this Part, the parties to a collective agreement may include in it provisions,

- (a) for requiring, as a condition of employment, membership in the association or granting a preference of employment to members of the association, or requiring the payment of dues or contributions to the association;
- (b) for permitting a firefighter who represents the association to attend to the business of the association during working hours without deduction of the time so occupied in the computation of the time worked for the employer and without deduction of wages in respect of the time so occupied; and
- (c) for permitting the association the use of the employer’s premises for the purposes of the association without payment therefor. 2015, c. 34, Sched. 1, s. 5.

Prohibitions re non-member firefighter

(2) No association that is a party to a collective agreement containing a provision mentioned in clause (1) (a) shall require the employer to refuse to employ a person as a firefighter, refuse to assign a person to fire protection services or discharge a firefighter because,

- (a) the firefighter has been expelled or suspended from membership in the association; or
- (b) membership in the association has been denied or withheld from the firefighter,

for reason that the firefighter,

- (c) was or is a member of another association or a trade union;
- (d) has engaged in activity against the association or on behalf of another association or a trade union;
- (e) has engaged in reasonable dissent within the association, including with respect to the person’s work, past work or intended work as a volunteer firefighter;

- (f) has been discriminated against by the association in the application of its membership rules, including with respect to the person's work, past work or intended work as a volunteer firefighter;
 - (g) has refused to pay initiation fees, dues or other assessments to the association which are unreasonable; or
 - (h) has worked, is working or intends to work as a volunteer firefighter, regardless of whether or not such work is within the jurisdiction, or adversely affects the interests, of the association.
- 2018, c. 17, Sched. 18, s. 9 (1).

Where subs. (2) does not apply

(3) Subsection (2) does not apply to a firefighter who has engaged in unlawful activity against the association mentioned in clause (1) (a) or an officer, official or agent thereof or whose activity against the association or on behalf of another association or trade union has been instigated or procured by the firefighter's employer or any person acting on the employer's behalf or whose employer or a person acting on the employer's behalf has participated in such activity or contributed financial or other support to the firefighter in respect of the activity. 2015, c. 34, Sched. 1, s. 5.

Same, unlawful activity

(3.1) For greater certainty, work as a volunteer firefighter, as described in clause (2) (h), is not an unlawful activity for the purposes of subsection (3). 2018, c. 17, Sched. 18, s. 9 (2).

Subs. (1) provisions continued during bargaining

(4) Despite anything in this Part, where the parties to a collective agreement have included in it any of the provisions permitted by subsection (1), any of such provisions may be continued in effect during the period when the parties are bargaining with a view to the renewal, with or without modifications, of the agreement or to the making of a new agreement. 2015, c. 34, Sched. 1, s. 5.

Where volunteer firefighter cannot be disciplined by association

(5) On or after November 15, 2018, no association shall deny membership to, suspend, expel, fine, attempt to collect a fine from, penalize or otherwise discipline a firefighter because the firefighter has worked, is working or intends to work as a volunteer firefighter, regardless of whether or not such work is within the jurisdiction, or adversely affects the interests, of the association. 2018, c. 17, Sched. 18, s. 9 (3).

Same, application

(6) The prohibition in subsection (5) applies regardless of whether the work as a volunteer firefighter occurred before November 15, 2018. 2018, c. 17, Sched. 18, s. 9 (3).

Civil remedy

(7) No action or other civil proceeding shall be commenced by any person, association or representative of an association against a firefighter who has worked, is working or intends to work as a volunteer firefighter, to attempt to collect a fine or any other form of monetary penalty, or to enforce or otherwise give effect to any decision of an association prohibited under subsection (5). 2018, c. 17, Sched. 18, s. 9 (3).

Religious objections

- 52.3** (1) Where the Board is satisfied that a firefighter because of his or her religious conviction or belief,
- (a) objects to joining an association; or
 - (b) objects to the paying of dues or other assessments to an association,

the Board may order that the provisions of a collective agreement of the type mentioned in clause 52.2 (1) (a) do not apply to the firefighter and that the firefighter is not required to join the association, to be or continue to be a member of the association, or to pay any dues, fees or assessments to the association, provided that amounts equal to any initiation fees, dues or other assessments are paid by the firefighter to or are remitted by the employer to a charitable organization mutually agreed upon by the firefighter and the association, but if the firefighter and the association fail to so agree then to a charitable organization registered as a charitable organization in Canada under Part I of the *Income Tax Act* (Canada) that may be designated by the Board. 2015, c. 34, Sched. 1, s. 5.

Application of subs. (1)

(2) Subsection (1) applies to firefighters in the employ of an employer at the time a collective agreement containing a provision of the kind mentioned in subsection (1) is first entered into with that employer and only during the life of such collective agreement, and does not apply to firefighters whose employment commences after the entering into of the collective agreement. 2015, c. 34, Sched. 1, s. 5.

Arbitration provision required

53. (1) Every collective agreement shall provide for the final and binding settlement by arbitration of all differences between the parties arising from the interpretation, application, administration or alleged violation of the collective agreement, including any question as to whether a matter is arbitrable, by a single arbitrator. 1997, c. 4, s. 53 (1).

Same

(2) If a collective agreement does not contain the provision mentioned in subsection (1), it shall be deemed to contain the following provision:

If a difference arises between the parties relating to the interpretation, application, administration of this agreement, including any question as to whether a matter is arbitrable, or if an allegation is made that this agreement has been violated, either of the parties may, after exhausting any grievance procedure established in this agreement, notify the other party in writing of its desire to submit the difference or allegation to a single arbitrator. 1997, c. 4, s. 53 (2).

Selection of single arbitrator

(3) If a matter is referred to arbitration, the arbitrator shall be selected in accordance with the regulations. 1997, c. 4, s. 53 (3).

Commencement of proceedings

(4) The arbitrator shall begin the arbitration proceedings within 30 days after his or her appointment or within such longer period as the parties may agree upon or as the arbitrator may determine. 1997, c. 4, s. 53 (4).

Time for decision

(5) An arbitrator shall give a decision within 30 days after hearings on the matter submitted to arbitration are concluded. 1997, c. 4, s. 53 (5).

Same

- (6) The time described in subsection (5) for giving a decision may be extended,
- (a) with the consent of the parties to the arbitration; or
 - (b) in the discretion of the arbitrator so long as he or she states in the decision the reasons for extending the time. 1997, c. 4, s. 53 (6).

Oral decision

(7) An arbitrator may give an oral decision and, if he or she does so, subsection (5) does not apply and the arbitrator,

- (a) shall give the decision promptly after hearings on the matter are concluded;
- (b) shall give a written decision, without reasons, promptly upon the request of either party; and
- (c) shall give written reasons for the decision within a reasonable period of time upon the request of either party. 1997, c. 4, s. 53 (7).

Orders re decisions

(8) If the arbitrator does not give a decision within the time described in subsection (5) or does not provide written reasons within the time described in subsection (7), the Minister may,

- (a) make such orders as he or she considers necessary to ensure that the decision or reasons will be given without undue delay; and
- (b) make such orders as he or she considers appropriate respecting the remuneration and expenses of the arbitrator. 1997, c. 4, s. 53 (8).

Powers of arbitrators

- (9) An arbitrator has power,
- (a) to require any party to furnish particulars before or during a hearing;
 - (b) to require any party to produce documents or things that may be relevant to the matter and to do so before or during the hearing;
 - (c) to fix dates for the commencement and continuation of hearings;
 - (d) to summon and enforce the attendance of witnesses and to compel them to give oral or written evidence on oath in the same manner as a court of record in civil cases;
 - (e) to administer oaths and affirmations,
 - (f) to accept the oral or written evidence as the arbitrator in his or her discretion considers proper, whether admissible in a court of law or not;
 - (g) to enter any premises where work is being done or has been done by the firefighters or in which the employer carries on business or where anything is taking place or has taken place concerning any of the differences submitted to the arbitrator, and inspect and view any work, material, machinery,

appliance or article therein, and interrogate any person respecting any such thing or any of such differences;

- (h) to authorize any person to do anything that the arbitrator may do under clause (g) and to report to the arbitrator thereon;
- (i) to make interim orders concerning procedural matters;
- (j) to interpret and apply human rights and other employment-related statutes, despite any conflict between those statutes and the terms of the collective agreement. 1997, c. 4, s. 53 (9).

Restriction re interim orders

(10) An arbitrator shall not make an interim order under clause (9) (i) requiring an employer to reinstate a firefighter in employment. 1997, c. 4, s. 53 (10).

Enforcement power

(10.1) An arbitrator or the chair of an arbitration board, as the case may be, may enforce the written settlement of a grievance. 2015, c. 34, Sched. 1, s. 6.

Extension of time

(11) Except where a collective agreement states that this subsection does not apply, an arbitrator may extend the time for the taking of any step in the grievance procedure under a collective agreement, despite the expiration of the time, where the arbitrator is satisfied that there are reasonable grounds for the extension and that the opposite party will not be substantially prejudiced by the extension. 1997, c. 4, s. 53 (11).

Substitution of penalty

(12) Where an arbitrator determines that a firefighter has been discharged or otherwise disciplined by an employer for cause and the collective agreement does not contain a specific penalty for the infraction that is the subject-matter of the arbitration, the arbitrator may substitute such other penalty for the discharge or discipline as to the arbitrator seems just and reasonable in all the circumstances. 1997, c. 4, s. 53 (12).

Effect of arbitrator's decision

(13) The decision of an arbitrator is binding upon the parties and the firefighters who are covered by the agreement and affected by the decision. 1997, c. 4, s. 53 (13).

Enforcement of arbitration decisions

(13.1) Where a party, employer, association, trade union, firefighter or other person has failed to comply with any of the terms of the decision of an arbitrator or arbitration board, any party, employer, association, trade union, firefighter or other person affected by the decision may file in the Superior Court of Justice a copy of the decision, exclusive of the reasons therefor, in the prescribed form, whereupon the decision shall be entered in the same way as a judgment or order of that court and is enforceable as such. 2015, c. 34, Sched. 1, s. 6.

Costs of arbitration

(14) Each party shall assume its own costs in the arbitration proceedings and pay one-half of the costs of the arbitrator. 1997, c. 4, s. 53 (14).

Non-application

(15) The *Arbitration Act, 1991* and the *Statutory Powers Procedure Act* do not apply with respect to an arbitration under this section. 1997, c. 4, s. 53 (15).

Referral of grievances to a single arbitrator

53.0.1 (1) Despite the arbitration provision in a collective agreement or deemed to be included in a collective agreement under section 53, a party to a collective agreement may request the Minister to refer to a single arbitrator, to be appointed by the Minister, any difference between the parties to the collective agreement arising from the interpretation, application, administration or alleged violation of the agreement, including any question as to whether a matter is arbitrable. 2015, c. 34, Sched. 1, s. 7.

Request for references

(2) Subject to subsection (3), a request under subsection (1) may be made by a party to the collective agreement in writing after the grievance procedure under the agreement has been exhausted or after 30 days have elapsed from the time at which the grievance was first brought to the attention of the other party, whichever first occurs, but no such request shall be made beyond the time, if any, stipulated in or permitted under the agreement for referring the grievance to arbitration. 2015, c. 34, Sched. 1, s. 7.

Same

(3) Despite subsection (2), where a difference between the parties to a collective agreement is a difference respecting discharge from or other termination of employment, a request under subsection (1) may be made by a party to the collective agreement in writing after the grievance procedure under the agreement has been exhausted or after 14 days have elapsed from the time at which the grievance was first brought to the attention of the other party, whichever first occurs, but no such request shall be made beyond the time, if any, stipulated in or permitted under the agreement for referring the grievance to arbitration. 2015, c. 34, Sched. 1, s. 7.

Minister to appoint arbitrator

(4) Where a request is received under subsection (1), the Minister shall appoint a single arbitrator who shall have exclusive jurisdiction to hear and determine the matter referred to him or her, including any question as to whether a matter is arbitrable and any question as to whether the request was timely. 2015, c. 34, Sched. 1, s. 7.

Same

(5) Where a request or more than one request concerns several differences arising under the collective agreement, the Minister may in his or her discretion appoint an arbitrator under subsection (4) to deal with all the differences raised in the request or requests. 2015, c. 34, Sched. 1, s. 7.

Settlement officer

(6) The Minister may appoint a settlement officer to confer with the parties and endeavour to effect a settlement prior to the hearing by an arbitrator appointed under subsection (4). 2015, c. 34, Sched. 1, s. 7.

Powers and duties of arbitrator

(7) An arbitrator appointed under subsection (4) shall commence to hear the matter referred to him or her within 21 days after the receipt of the request by the Minister and the provisions of subsections 53 (5) to (15)

apply with all necessary modifications to the arbitrator, the parties and the decision of the arbitrator. 2015, c. 34, Sched. 1, s. 7.

Oral decisions

(8) Upon the agreement of the parties, the arbitrator shall deliver an oral decision forthwith or as soon as practicable without giving his or her reasons in writing therefor. 2015, c. 34, Sched. 1, s. 7.

Payment of arbitrator

(9) Where the Minister has appointed an arbitrator under subsection (4), each of the parties shall pay one-half of the remuneration and expenses of the person appointed. 2015, c. 34, Sched. 1, s. 7.

MANDATORY RETIREMENT

Application

53.1 (1) This section applies to a firefighter only if the firefighter is regularly assigned to fire suppression duties. 2011, c. 13, s. 2.

Mandatory retirement provision permitted

(2) A collective agreement may contain a provision requiring firefighters to retire at a specified age of 60 or over and, if it does, a firefighter subject to the agreement shall, subject to subsection (4), retire at the specified age. 2011, c. 13, s. 2.

Existing and new collective agreements

(3) Subsection (2) applies to collective agreements that are in operation on the day section 2 of the *Fire Protection and Prevention Amendment Act, 2011* comes into force and to collective agreements that come into force after that day. 2011, c. 13, s. 2.

Deemed mandatory retirement provision

(3.1) If a collective agreement does not contain a provision requiring firefighters to retire at a specified age or if it contains a provision requiring firefighters to retire at an age under 60, the agreement is deemed to contain a provision requiring firefighters to retire at the age of 60 and a firefighter subject to the agreement shall, subject to subsection (4), retire at that age. 2011, c. 13, s. 3.

Reasonable accommodation

(4) A firefighter shall not be required to retire if the firefighter can be accommodated without undue hardship, considering the cost, outside sources of funding, if any, and health and safety requirements, if any. 2011, c. 13, s. 2.

Human Rights Code

(5) This section applies despite the *Human Rights Code*. 2011, c. 13, s. 2.

Managers, etc.

54. (1) An employer may assign a person employed by it to a position which, in the opinion of the employer, involves the exercise of managerial functions or employment in a confidential capacity in matters relating to labour relations, but, subject to subsection (4), the assignment is not conclusive of the question of whether the person does exercise such functions or is employed in such capacity.

Board to decide status

(2) Subject to subsection (4), the Board, on application of an employer, has exclusive jurisdiction to determine any question as to whether a person exercises managerial functions or is employed in a confidential capacity in matters relating to labour relations, and its decision is final and conclusive for all purposes.

Same

(3) Subject to subsection (4), a person shall remain in the bargaining unit until the Board makes a determination under subsection (2), unless the parties otherwise agree.

Designation

(4) Subject to subsections (5) and (8), an employer may, in its sole discretion, designate a person described in subsection (1) as a person who shall for purposes of this Act be conclusively deemed to be exercising managerial functions or acting in a confidential capacity in matters relating to labour relations.

Consent required

(5) An employer shall not designate a person under subsection (4) unless the person consents to the designation.

If no consent

(6) If a person does not consent to a designation under subsection (4), the employer shall assign the person to a position in the bargaining unit. If the position to which a person is assigned has a lower salary than the position held by the person before the assignment, he or she is entitled to be paid the same salary and to receive the same benefits after the assignment as he or she was paid and received before the assignment.

Revocation

(7) A designation under subsection (4) may be revoked by the employer at any time.

Restriction

- (8) An employer shall not designate under subsection (4) more than,
- (a) two persons, if the employer employs fewer than 25 persons;
 - (b) three persons, if the employer employs 25 or more but fewer than 150 persons;
 - (c) four persons, if the employer employs 150 or more but fewer than 300 persons; or
 - (d) five persons, if the employer employs 300 or more persons. 1997, c. 4, s. 54 (1-8).

Amalgamations

(8.1) If, after the day on which subsection 3 (2) of the *Public Sector Dispute Resolution Act, 1997* comes into force, two or more municipalities that are employers of firefighters amalgamate, the amalgamated municipality is entitled under subsection (4) to designate the number of persons that is equal to the sum of the numbers of persons that each of the amalgamating municipalities would have been able to designate immediately before the amalgamation.

Dissolutions and incorporations

(8.2) If, after the day on which subsection 3 (2) of the *Public Sector Dispute Resolution Act, 1997* comes into force, two or more municipalities that are employers of firefighters are dissolved and the inhabitants of the municipalities are incorporated in a new municipality, subsection (8.1) shall apply as if the dissolved municipalities were amalgamating municipalities and the new municipality was an amalgamated municipality. 1997, c. 21, Sched. A, s. 3 (2).

Calculating number of persons employed

- (9) For the purposes of subsection (8), the number of persons employed by the employer is the sum of,
- (a) the number of persons employed by the employer who are firefighters; and
 - (b) the number of persons who are performing or conclusively deemed to be performing managerial functions with respect to firefighters or acting in a confidential capacity in matters relating to labour relations with respect to firefighters. 1997, c. 4, s. 54 (9).

Enforcement of decisions

55. (1) If a person or bargaining agent fails to comply with a decision of an arbitrator under section 53, the person or bargaining agent affected by the decision may file a copy of the decision (excluding the reasons for the decision) with the Superior Court of Justice. 1997, c. 4, s. 55 (1); 2002, c. 18, Sched. N, s. 14.

Same

(2) The decision shall not be filed with the court until 30 days have elapsed after the date the decision was released or after the date specified in the decision for complying with it. 1997, c. 4, s. 55 (2).

Effect of filing

(3) When it is filed with the court, the decision shall be entered in the same way as a judgment or order of the court and is enforceable as such. 1997, c. 4, s. 55 (3).

Working conditions not to be altered

56. (1) If notice has been given under section 47 by a bargaining agent for a unit of firefighters or an employer and no collective agreement is in operation,
- (a) the employer shall not, except with the consent of the bargaining agent, alter the rates of wages or any other term or condition of employment or any right, privilege or duty of the employer or the firefighters until the right of the bargaining agent to represent the firefighters has been terminated; and

- (b) the bargaining agent shall not, except with the consent of the employer, alter any term or condition of employment or any right, privilege or duty of the employer, the bargaining agent or the firefighters until the right of the bargaining agent to represent the firefighters has been terminated.

Arbitration if no agreement

(2) If notice has been given under subsection 47 (2) and no collective agreement is in operation, any difference between the parties as to whether or not subsection (1) was complied with may be referred to arbitration by either of the parties as if the collective agreement was still in operation and the arbitration shall proceed in accordance with section 53. 1997, c. 4, s. 56.

Inquiry, alleged contravention

56.1 (1) The Board may authorize a labour relations officer to inquire into any complaint alleging a contravention of this Part. 2015, c. 34, Sched. 1, s. 8.

Duties

(2) The labour relations officer shall forthwith inquire into the complaint and endeavour to effect a settlement of the matter complained of. 2015, c. 34, Sched. 1, s. 8.

Report

(3) The labour relations officer shall report the results of his or her inquiry and endeavours to the Board. 2015, c. 34, Sched. 1, s. 8.

Remedy for discrimination

(4) Where a labour relations officer is unable to effect a settlement of the matter complained of or where the Board in its discretion considers it advisable to dispense with an inquiry by a labour relations officer, the Board may inquire into the complaint of a contravention of this Part and where the Board is satisfied that an employer, employers' organization, association, person or firefighter has acted contrary to this Part it shall determine what, if anything, the employer, employers' organization, association, person or firefighter shall do or refrain from doing with respect thereto and such determination, without limiting the generality of the foregoing may include, despite the provisions of any collective agreement, any one or more of,

- (a) an order directing the employer, employers' organization, association, firefighter or other person to cease doing the act or acts complained of;
- (b) an order directing the employer, employers' organization, association, firefighter or other person to rectify the act or acts complained of; or
- (c) an order to reinstate in employment or hire the person or firefighter concerned, with or without compensation, or to compensate instead of hiring or reinstatement for loss of earnings or other employment benefits in an amount that may be assessed by the Board against the employer, employers' organization, association, firefighter or other person jointly or severally. 2015, c. 34, Sched. 1, s. 8.

Burden of proof

(5) On an inquiry by the Board into a complaint under subsection (4) that a person has been refused employment, discharged, discriminated against, threatened, coerced, intimidated or otherwise dealt with contrary to this Part as to the person's employment, opportunity for employment or conditions of employment,

the burden of proof that any employer or employers' organization did not act contrary to this Part lies upon the employer or employers' organization. 2015, c. 34, Sched. 1, s. 8.

Filing in court

(6) An association, employer, employers' organization, firefighter or other person affected by the determination may file the determination, excluding the reasons, in the prescribed form in the Superior Court of Justice and it shall be entered in the same way as an order of that court and is enforceable as such. 2015, c. 34, Sched. 1, s. 8.

Effect of settlement

(7) Where a proceeding under this Part has been settled, whether through the endeavours of the labour relations officer or otherwise, and the terms of the settlement have been put in writing and signed by the parties or their representatives, the settlement is binding upon the parties, the association, employer, employers' organization, firefighter or other person who have agreed to the settlement and shall be complied with according to its terms, and a complaint that the association, employer, employers' organization, firefighter or other person who agreed to the settlement has not complied with the terms of the settlement shall be deemed to be a complaint under subsection (1). 2015, c. 34, Sched. 1, s. 8.

“person” defined for purposes of ss. 46.8 and 56.1

56.2 For the purposes of section 46.8 and any complaint made under section 56.1,

“person” includes any person otherwise excluded by subsection 41 (2). 2015, c. 34, Sched. 1, s. 8.

Board power re interim orders

56.3 (1) On application in a pending proceeding, the Board may,

- (a) make interim orders concerning procedural matters on such terms as it considers appropriate;
- (b) subject to subsections (2) and (3), make interim orders requiring an employer to reinstate a firefighter in employment on such terms as it considers appropriate; and
- (c) subject to subsections (2) and (3), make interim orders respecting the terms and conditions of employment of a firefighter whose employment has not been terminated but whose terms and conditions of employment have been altered or who has been subject to reprisal, penalty or discipline by the employer. 2015, c. 34, Sched. 1, s. 8.

Same

(2) The Board may exercise its power under clause (1) (b) or (c) only if the board determines that all of the following conditions are met:

- 1. The circumstances giving rise to the pending proceeding occurred at a time when a campaign to establish bargaining rights was underway.
- 2. There is a serious issue to be decided in the pending proceeding.
- 3. The interim relief is necessary to prevent irreparable harm or is necessary to achieve other significant labour relations objectives.
- 4. The balance of harm favours the granting of the interim relief pending a decision on the merits in the pending proceeding. 2015, c. 34, Sched. 1, s. 8.

Same

(3) The Board shall not exercise its powers under clause (1) (b) or (c) if it appears to the Board that the alteration of terms and conditions, dismissal, reprisal, penalty or discipline by the employer was unrelated to the exercise of rights under this Part by a firefighter. 2015, c. 34, Sched. 1, s. 8.

Same

(4) Despite subsection 56.1 (5), in an application under this section, the burden of proof lies on the applicant. 2015, c. 34, Sched. 1, s. 8.

Same

(5) With respect to the Board, the power to make interim orders under this section applies instead of the power under subsection 16.1 (1) of the *Statutory Powers Procedure Act*. 2015, c. 34, Sched. 1, s. 8.

Transition rules

56.4 If, on the day the *Employment and Labour Statute Law Amendment Act, 2015* received First Reading, a matter was before the Board or an arbitrator and the Board or arbitrator had not given a decision on the matter, the Board or arbitrator shall decide the matter in accordance with this Act as amended by the *Employment and Labour Statute Law Amendment Act, 2015*, regardless of when the matter in dispute occurred. 2015, c. 34, Sched. 1, s. 8.

REGULATIONS**Regulations**

57. The Minister may make regulations,

- (a) REPEALED: 2016, c. 37, Sched. 9, s. 7.
- (b) governing the selection of arbitrators under section 53;
- (c) prescribing forms for the purposes of subsections 53 (13.1) and 56.1 (6). 1997, c. 21, Sched. A, s. 3 (3); 2011, c. 13, s. 4; 2015, c. 34, Sched. 1, s. 9; 2016, c. 37, Sched. 9, s. 7.

PART X

FIRE SAFETY COMMISSION

Fire Safety Commission

58. (1) The Fire Code Commission is continued under the name the Fire Safety Commission in English and Commission de la sécurité-incendie in French and is composed of such number of members as is determined by the Lieutenant Governor in Council. 1997, c. 4, s. 58 (1).

Appointment of members

(2) The Lieutenant Governor in Council shall appoint the members to the Commission, and may designate one of the members as chair and one or more of the members as vice-chair. 2006, c. 35, Sched. C, s. 44 (1).

Ineligibility

- (2.1) A person is not eligible to be a member of the Commission if the person is,
- (a) a deputy minister of a ministry;
 - (b) a public servant employed under Part III of the *Public Service of Ontario Act, 2006*; or
 - (c) an employee of a municipality. 2006, c. 35, Sched. C, s. 44 (1).

Remuneration

(3) The members of the Commission shall receive such remuneration and expenses as the Lieutenant Governor in Council may determine. 1997, c. 4, s. 58 (3).

Composition of panels for hearings

(4) A proceeding before the Commission shall be heard and determined by a panel consisting of one or more members of the Commission, as assigned by the chair or vice-chair of the Commission. 2023, c. 12, Sched. 4, s. 6.

PART XI

FIRE MARSHAL'S PUBLIC FIRE SAFETY COUNCIL

Definition: "Council"

59. In this Part,

“Council” means the Fire Marshal’s Public Fire Safety Council. 1997, c. 4, s. 59.

Council established

60. (1) A corporation without share capital is hereby constituted to be known in English as the Fire Marshal’s Public Fire Safety Council and in French as Conseil public du commissaire des incendies sur la sécurité-incendie. 1997, c. 4, s. 60 (1).

Membership

(2) The Council shall consist of its board of directors and such other persons who are appointed as members of the Council by the Fire Marshal. 1997, c. 4, s. 60 (2).

Non-application of corporate Acts

(3) The *Not-for-Profit Corporations Act, 2010* and *Corporations Information Act* do not apply to the Council. 1997, c. 4, s. 60 (3); 2010, c. 15, s. 227.

Conflict of interest

(4) Section 132 of the *Business Corporations Act* applies to the Council and to its directors and officers. 1997, c. 4, s. 60 (4).

Objects

61. The objects of the Council are,

- (a) to promote fire safety throughout the province;
- (b) to produce and distribute materials for public education with respect to fire safety;
- (c) to provide or endorse training, education and fire prevention activities;
- (d) to facilitate and co-ordinate the public exchange of information and ideas on matters of fire safety;
- (e) to solicit, receive, manage and distribute money and other property to support the objects described in clauses (a), (b), (c) and (d);
- (f) to enter into partnerships and agreements with persons or organizations in the private sector or with public bodies or organizations to further the objects described in clauses (a), (b), (c), (d) and (e);
and
- (g) to advise the Fire Marshal on matters of fire safety. 1997, c. 4, s. 61.

Board

62. (1) The affairs of the Council shall be managed by its board of directors. 1997, c. 4, s. 62 (1).

Composition

(2) The board shall be composed of the Fire Marshal and at least six directors appointed from among the members by the Minister on the recommendation of the Fire Marshal. 1997, c. 4, s. 62 (2); 2023, c. 12, Sched. 4, s. 7 (1).

Term of office

(3) A director is appointed for a term not exceeding three years, and may be reappointed for successive terms not exceeding three years each. 1997, c. 4, s. 62 (3).

Chair

(4) The Fire Marshal is chair of the board. 1997, c. 4, s. 62 (4); 2023, c. 12, Sched. 4, s. 7 (2).

Vice-chairs

(5) The Fire Marshal shall designate one or more other directors to be vice-chairs. 1997, c. 4, s. 62 (5).

Same

(6) If the Fire Marshal is absent from a meeting of the board, or is unable to act and no Deputy Fire Marshal is able to take the place of the Fire Marshal at the meeting, a vice-chair shall act as and have all the powers of the chair. 2023, c. 12, Sched. 4, s. 7 (3).

Quorum

(7) A majority of the directors constitutes a quorum. 1997, c. 4, s. 62 (7).

Vacancies

(8) If a director's position becomes vacant, the Minister may appoint another person to the board for the remainder of his or her term. 1997, c. 4, s. 62 (8).

Remuneration

(9) The appointed directors shall receive such remuneration and reimbursement for reasonable expenses as may be determined by the Council. 1997, c. 4, s. 62 (9).

Powers of Council

63. (1) The Council has the capacity and the rights, powers and privileges of a natural person, subject to the limitations set out in this Act and in section 11.0.1 of the *Ministry of Infrastructure Act, 2011*, for the purpose of carrying out its objects. 1997, c. 4, s. 63 (1); 2023, c. 5, Sched. 2, s. 9.

Same

- (2) Without limiting the generality of subsection (1), the board of directors of the Council may,
- (a) enter into agreements with any organization with objects similar to or consistent with those of the Council;
 - (b) authorize any person or organization to use the Council's logo to indicate the Council's endorsement of a product, service, training course, education course or activity;
 - (c) otherwise endorse any product, service, training course, education course or activity;
 - (d) solicit, receive, manage, invest, transfer, use and distribute money and other property to support the objects of the Council. 1997, c. 4, s. 63 (2).

Logo

(3) The board of directors shall by by-law adopt a logo for the Council. 1997, c. 4, s. 63 (3).

Borrowing powers

64. (1) The board of directors of the Council may borrow money on the credit of the Council for the purposes of the Council and may use any money or property of the Council as security for such borrowing.

Limitation on borrowing powers

(2) The amount that may be borrowed under subsection (1), together with the total of any previous borrowing that remains unpaid, shall not exceed \$50,000 at any one time without the approval of the Minister, but no lender shall be required to inquire into the board's compliance with this section and all loans to the Council shall be deemed to have been lawfully made under the authority of this section despite any non-compliance of the board. 1997, c. 4, s. 64.

By-laws

65. The board of directors of the Council may pass by-laws,

- (a) regulating its proceedings;
- (b) establishing the fiscal year for the Council;
- (c) specifying the powers, duties and remuneration of its officers and employees;
- (d) establishing an executive committee and other committees and delegating powers of the board to such committees;
- (e) providing for membership in the Council, establishing classes of membership and prescribing the qualifications, conditions and rights of membership, the fees, if any, to be paid for membership and providing for and regulating members' meetings;
- (f) generally for the management of the Council. 1997, c. 4, s. 65.

Council's property to be dedicated to objects

66. (1) All the property of the Council and all its income, revenue and profits shall be devoted and applied solely to carrying out the objects of the Council.

Investment

(2) Any funds of the Council that are not immediately required for promoting and carrying out its objects, and the proceeds of any property of the Council, subject to any trust affecting them, not immediately required for such purpose, may be invested and reinvested as the board of directors considers proper.

Money vests in Council

(3) All amounts in the Consolidated Revenue Fund credited, immediately before this section comes into force, to an advisory committee that was established under the *Fire Marshals Act*, being chapter F.17 of the Revised Statutes of Ontario, 1990, are hereby vested in the Council. 1997, c. 4, s. 66.

Employees

67. (1) The board of directors of the Council may employ or contract for the services of such persons, including any persons who are appointed directors, as it considers necessary for the functioning of the Council. 1997, c. 4, s. 67 (1).

Not an employee of the Crown

(2) A person who is employed or whose services are contracted under subsection (1) is not and shall not be deemed to be an employee of the Crown. 2006, c. 35, Sched. C, s. 44 (2).

Ministry support

68. The Office of the Fire Marshal may, on request, provide administrative, technical or expert advice or assistance to the Council. 1997, c. 4, s. 68.

Protection from personal liability

69. (1) No action or other proceeding for damages may be instituted against a director or a member of the Council or any employee of the Council for any act done in good faith in the execution or intended execution of the person's power or duty or for any alleged neglect or default in the execution in good faith of the person's power or duty. 1997, c. 4, s. 69 (1).

Same

(2) Despite subsection 8 (3) of the *Crown Liability and Proceedings Act, 2019*, subsection (1) does not relieve the Crown of liability in respect of a tort committed by a person mentioned in subsection (1) to which it would otherwise be subject. 1997, c. 4, s. 69 (2); 2019, c. 7, Sched. 17, s. 77 (1).

Indemnification for legal costs

(3) With the approval of the Minister, a person described in subsection (1) or a former director, member or employee of the Council shall be indemnified by the Crown in right of Ontario for his or her reasonable legal costs in respect of any proceeding in which the person's execution in good faith of his or her duties is in issue, if the person acted in good faith. 1997, c. 4, s. 69 (3).

Auditors

70. The board of directors of the Council shall appoint one or more auditors licensed under the *Public Accounting Act, 2004* to audit the accounts and transactions of the Council for each fiscal year. 1997, c. 4, s. 70; 2004, c. 8, s. 46.

Annual and other reports

71. The board of directors of the Council shall submit an annual report to the Minister on the affairs and transactions of the Council in the preceding fiscal year and shall submit such other reports as the Minister may request. 1997, c. 4, s. 71.

Winding-up

72. Upon the winding-up or dissolution of the Council, all its assets, after discharging all outstanding liabilities, shall vest in the Crown. 1997, c. 4, s. 72.

Review

73. The Minister shall, five years after this Part comes into force, undertake a review of the activities of the Council and submit to the Lieutenant Governor in Council a report that recommends the continuation, amendment or repeal of this Part. 1997, c. 4, s. 73.

PART XII MISCELLANEOUS

Protection from personal liability

74. (1) No action or other proceeding for damages shall be instituted against a firefighter, a fire co-ordinator, a community fire safety officer, a member or employee of the Fire Safety Commission, an assistant to the Fire Marshal, a Deputy Fire Marshal, the Fire Marshal, or a person acting under his or her authority, for any act done in good faith in the execution or intended execution of his or her power or duty or for any alleged neglect or default in the execution in good faith of his or her power or duty. 1997, c. 4, s. 74 (1); 2023, c. 12, Sched. 4, s. 8.

Crown, municipality not relieved of liability

(2) Despite subsection 8 (3) of the *Crown Liability and Proceedings Act, 2019*, subsection (1) does not relieve the Crown or a municipal corporation of liability in respect of a tort committed by a person referred to in subsection (1) to which they would otherwise be subject. 1997, c. 4, s. 74 (2); 2019, c. 7, Sched. 17, s. 77 (2).

Indemnification

75. (1) A firefighter, a fire co-ordinator, a community fire safety officer, a member or employee of the Fire Safety Commission, an assistant to the Fire Marshal, a Deputy Fire Marshal, the Fire Marshal or a person acting under his or her authority shall be indemnified for reasonable legal costs incurred,

- (a) in the defence of a civil action, if the person is not found to be liable;
- (b) in the defence of a criminal prosecution, if the person is found not guilty;
- (c) in respect of any other proceeding in which the person's execution of his or her duties is an issue, if the person acted in good faith. 1997, c. 4, s. 75 (1); 2023, c. 12, Sched. 4, s. 9 (1).

Same

- (2) Indemnification under subsection (1) shall be made by,
- (a) in the case of a firefighter, community fire safety officer or assistant to the Fire Marshal who is employed by a municipality, the municipal corporation;
 - (b) in the case of a firefighter, community fire safety officer or assistant to the Fire Marshal who is working under an agreement with the Crown or in the case of a fire co-ordinator, a member or employee of the Fire Safety Commission, a Deputy Fire Marshal, the Fire Marshal or a person acting under his or her authority, the Crown. 1997, c. 4, s. 75 (2); 2023, c. 12, Sched. 4, s. 9 (2).

Effect of collective agreement

(3) A collective agreement made under Part IX or a decision under section 53 may provide for indemnification of the legal costs of firefighters, except the legal costs of a firefighter who is found guilty of a criminal offence, and if such an agreement exists, the municipal corporation shall indemnify the firefighters in accordance with the agreement and subsections (1) and (2) shall not apply. 1997, c. 4, s. 75 (3).

No action for damages from accidental fire

76. No action shall be brought against any person in whose house or building or on whose land any fire accidentally begins, nor shall any recompense be made by that person for any damage suffered thereby; but no agreement between a landlord and tenant is defeated or made void by this Act. 1997, c. 4, s. 76.

Manner of service

77. (1) Where a copy of an order or notice is required to be given to, or served on, a person under this Act, the copy may be served personally, by regular letter mail, by electronic transmission, by telephone transmission of a facsimile or by some other method that allows proof of receipt.

Deemed receipt

(2) Service by regular letter mail under subsection (1) shall be deemed to be received by the person on the fifth day after mailing unless the person establishes that the person did not, acting in good faith, through absence, accident, illness or other cause beyond the person's control receive a copy until a later date than the deemed date of receipt.

Same

(3) Service by electronic transmission or by telephone transmission of a facsimile under subsection (1) shall be deemed to be received the day after it is sent or, if that day is a Saturday or holiday, on the next day that is not a Saturday or holiday, unless the person establishes that the person did not, acting in good faith, through absence, accident, illness or other cause beyond the person's control receive a copy until a later date than the deemed date of receipt. 1997, c. 4, s. 77.

Regulations

78. (1) The Minister may make regulations,
- (a) respecting the operation and administration of fire departments and community fire safety teams established or appointed by an agreement made under section 3 and respecting the functions of community fire safety officers appointed by such an agreement;

- (b) prescribing persons or organizations for the purposes of subsections 3 (1) and 4 (2);
- (c) prescribing powers and duties that a fire chief may delegate in addition to those mentioned in subsection 6 (6);
- (d) prescribing limitations, restrictions, or conditions that apply to a delegation of powers or duties of a fire chief under subsection 6 (6), including restricting the type of power or duty that may be delegated or the class of person to whom the power or duty may be delegated;
- (e) respecting the records and returns to be used, kept and made by fire chiefs in respect of their inspections of any class of premises or premises used for any specified purpose;
- (f) requiring any person to furnish such statistical and other information to the Fire Marshal as he or she considers necessary;
- (g) requiring the following persons or entities to report to the Fire Marshal the particulars of any insurance loss or claim,
 - (i) a fire insurance company authorized to transact business in Ontario,
 - (ii) a person adjusting a claim against a fire insurance company, whether the insurance company is licensed to transact business in Ontario or not and whether the adjuster represents the company or the claimant, or
 - (iii) a person sustaining or claiming to have sustained a loss by fire on property in Ontario insured wholly or partially by an insurance company that is not licensed or registered under the Insurance Act;
- (h) defining “regularly employed” for the purposes of the definition of “firefighter” in subsection 41 (1) and “activity allowance” for the purposes of the definition of “volunteer firefighter” in subsection 1 (1);
- (i) respecting standards for fire protection devices, equipment and systems;
- (j) providing for licensing and regulating the manufacture, sale, installation, servicing, maintenance, testing and repairing of fire protection devices, equipment and systems;
- (k) respecting practices and standards for fire protection services and certification and training of firefighters, including full-time, volunteer and part-time firefighters;
- (l) prescribing fees and allowances for services and training provided by or on behalf of the Province or municipalities and respecting the person or body to whom the fees or allowances shall be paid;
- (m) governing the inspection of hotels;
- (n) respecting any matter necessary or advisable to carry out effectively the intent and purpose of this Act.

L. G. in C.

(1.1) The Lieutenant Governor in Council may make regulations governing administrative penalties that may be imposed under section 30.2, and, without limiting the foregoing, may make regulations,

- (a) prescribing provisions of this Act and of the regulations for the purpose of subsection 30.2 (2);
- (b) prescribing authorized persons for the purpose of section 30.2, which may include authorizing municipalities to appoint prescribed authorized persons;
- (c) prescribing the amount of a penalty, or a method for calculating the amount of a penalty, and prescribing different penalties or ranges of penalties for different types of contraventions or failures to comply and different penalties or ranges of penalties depending on specified criteria;

- (d) authorizing prescribed authorized persons to determine the amount of a penalty, if the amount of the penalty or method for calculating the amount of the penalty is not prescribed, and prescribing criteria that may or must be considered when making an order under subsection 30.2 (2), including prescribing that the criteria may include aggravating or mitigating factors;
- (e) authorizing that a penalty may be imposed for each day or part of a day on which a contravention or failure to comply continues;
- (f) authorizing higher penalties for a second or subsequent contravention or failure to comply;
- (g) governing the payment of penalties and authorizing prescribed authorized persons to approve a plan of periodic payments that extends beyond the deadline;
- (h) authorizing the imposition of late payment fees respecting penalties that are not paid before the specified deadline, including graduated late payment fees, and providing that such fees are included as part of the penalty for enforcement purposes;
- (i) prescribing a lesser maximum penalty and the provisions of this Act or the regulations to which the lesser maximum penalty applies;
- (j) prescribing and governing procedures for making and serving an order under section 30.2, including prescribing rules for service, prescribing the day on which an order is deemed to have been received and providing for service on persons outside Ontario;
- (k) governing the review of an order, including,
 - (i) prescribing persons or entities as reviewers, which may include authorizing municipalities to appoint the reviewers,
 - (ii) establishing procedures for commencing and conducting a review,
 - (iii) establishing time limits for the stages of a review and authorizing the reviewer to extend any time limit,
 - (iv) prescribing that the review must or may be conducted orally, electronically or in writing or authorizing the reviewer to make that determination, and
 - (v) establishing criteria to be considered and criteria not to be considered by the reviewer when determining what decision to make;
- (l) prescribing the form and content of orders under section 30.2;
- (m) prescribing circumstances in which a person is not required to pay an administrative penalty;
- (n) providing that an administrative penalty is payable to a prescribed person rather than to the Minister of Finance, and is a debt due to the person to whom it is payable;
- (o) providing for other matters to carry out the purpose of section 30.2. 2024, c. 2, Sched. 10, s. 2.

Same

- (2) A regulation made under this section may be general or specific in its application. 1997, c. 4, s. 78.

Municipal by-laws superseded

79. A regulation, including the fire code, supersedes all municipal by-laws respecting standards for land and premises, as those standards relate to fire safety or the risk created by the presence of unsafe levels of carbon monoxide. 2013, c. 14, s. 5.

**REGULATIONS MADE
UNDER THE
FIRE PROTECTION
AND
PREVENTION ACT, 1997**

S.O. 1997, CHAPTER 4

Current to January 1, 2026

This document is prepared for convenience only. For accurate reference and current information on regulations under the *Fire Protection and Prevention Act, 1997*, refer to the Government of Ontario's e-Laws web site at www.ontario.ca/laws.

ONTARIO REGULATION 407/97

APPOINTMENT OF ARBITRATORS AND CONCILIATION OFFICERS

1. A conciliation officer described in section 49 of the Act shall be appointed by the Minister.
2. (1) For the purpose of subsection 53 (3) of the Act, the parties shall jointly appoint a single arbitrator.
(2) If there is a failure to jointly appoint a single arbitrator, the Minister, upon request of either party, may appoint the arbitrator, and any person so appointed by the Minister shall be deemed to have been appointed in accordance with the collective agreement.

ONTARIO REGULATION 213/07

FIRE CODE

**NOTE: THE CONTENTS OF THIS REGULATION CAN BE FOUND IN
THE NEXT TAB.**

ONTARIO REGULATION 425/11

FORMS

Forms

1. (1) In this section, when a form is referred to by number, the reference is to the form with that number that is described in Schedule 1.
(2) A determination of the Ontario Labour Relations Board for filing in the Superior Court of Justice under subsection 46.2 (6) of the Act shall be in Form 1.

(3) An interim or final order of the Ontario Labour Relations Board for filing in the Superior Court of Justice under subsection 46.4 (8) of the Act shall be in Form 2.

2. OMITTED (provides for coming into force of provisions of this Regulation).

SCHEDULE 1

1. Form 1, entitled “Filing in Court (Determination of Board)”, dated December 1, 2011 and available from the Board.
2. Form 2, entitled “Filing in Court (Order of Board)”, dated December 1, 2011 and available from the Board.

ONTARIO REGULATION 364/13

MANDATORY INSPECTION — FIRE DRILL IN VULNERABLE OCCUPANCY

Definitions

1. In this Regulation,

“building” has the same meaning as in the fire code; (“bâtiment”)

“care and treatment occupancy” has the same meaning as in the fire code; (“établissement de soins et de traitement”)

“care occupancy” has the same meaning as in the fire code; (“établissement de soins”)

“Chief Fire Official” has the same meaning as in the fire code; (“chef de la sécurité-incendie”)

“inspector” means an inspector for the purposes of Part VI of the Act; (“inspecteur”)

“retirement home” has the same meaning as in the fire code. (“maison de retraite”)

Mandatory inspection, fire drill in vulnerable occupancy

2. (1) If the Chief Fire Official is notified under Article 2.8.3.3. of Division B of the fire code that a fire drill will be carried out under Sentence 2.8.3.2.(6) of Division B of the fire code in a care occupancy, care and treatment occupancy or retirement home, the person described in subsection (2) shall ensure that,

- (a) an inspector observes the fire drill; and
- (b) an inspector conducts a fire safety inspection,
 - (i) in the care occupancy, care and treatment occupancy or retirement home in which the fire drill is carried out, and

- (ii) if the fire safety systems, devices or structural elements of any other part of the building containing the care occupancy, care and treatment occupancy or retirement home affect the life safety of the care occupancy, care and treatment occupancy or retirement home, in that part of the building, too.

(2) The person who must ensure that an inspector observes the fire drill and conducts a fire safety inspection under subsection (1) is,

- (a) if the building is in a municipality, or a part of a municipality, for which a fire department has been established, the fire chief appointed for the fire department;
- (b) if the building is in territory without municipal organization for which a fire department has been established, the fire chief appointed for the fire department;
- (c) subject to clause (e), if the building is in a municipality, or a part of a municipality, for which no fire department has been established,
 - (i) the community fire safety officer appointed for the municipality or the part, or
 - (ii) if no community fire safety officer has been appointed, the head of the community fire safety team appointed for the municipality or the part;
- (d) subject to clause (e), if the building is in territory without municipal organization for which no fire department has been established, the Fire Marshal;
- (e) if the building is in an area for which no fire department has been established but that is the subject of an agreement under subsection 2 (5) of the Act providing for the area to receive fire protection services from a fire department situated outside the area, the person who is responsible under the agreement for fire protection services in the area.

(3) The person described in subsection (2) shall ensure that the fire safety inspection required under subsection (1) is conducted in accordance with the directives, if any, issued by the Fire Marshal.

Required information after inspection

3. (1) If the person ensuring that an inspector observes the fire drill and conducts a fire safety inspection under subsection 2 (1) is not the Fire Marshal, the person shall file the following information with the Fire Marshal in the form and manner and within the time period directed by the Fire Marshal:

1. The operating name of the care occupancy, care and treatment occupancy or retirement home in which the fire drill was carried out.
2. The street address of the care occupancy, care and treatment occupancy or retirement home.
3. The classification of the care occupancy, care and treatment occupancy or retirement home as a care occupancy, care and treatment occupancy or retirement home.
4. The date the fire drill was observed.
5. The date the fire safety inspection was conducted.

(2) If the person ensuring that an inspector observes the fire drill and conducts a fire safety inspection under subsection 2 (1) is the Fire Marshal, he or she shall keep a record of the information described in subsection (1).

4. OMITTED (provides for coming into force of provisions of this Regulation).

ONTARIO REGULATION 365/13

MANDATORY ASSESSMENT OF COMPLAINTS AND REQUESTS FOR APPROVAL

Definitions

1. In this Regulation,

“approved” has the same meaning as in the fire code; (“approuvé”)

“building” has the same meaning as in the fire code; (“bâtiment”)

“care and treatment occupancy” has the same meaning as in the fire code; (“établissement de soins et de traitement”)

“care occupancy” has the same meaning as in the fire code; (“établissement de soins”)

“Chief Fire Official” has the same meaning as in the fire code; (“chef de la sécurité-incendie”)

“inspector” means an inspector for the purposes of Part VI of the Act; (“inspecteur”)

“owner” has the same meaning as in the fire code; (“propriétaire”)

“retirement home” has the same meaning as in the fire code. (“maison de retraite”)

Mandatory assessment after complaint

2. (1) If a person described in subsection (2) receives a complaint about the fire safety of a building, he or she shall assess the complaint and determine whether it would be advisable to conduct a fire safety inspection in the building or a part of the building as a result of the complaint.

(2) The person who is required by subsection (1) to assess the complaint and determine whether it would be advisable to conduct a fire safety inspection in the building or a part of the building as a result of the complaint is,

- (a) if the building is in a municipality, or a part of a municipality, for which a fire department has been established, the fire chief appointed for the fire department;
- (b) if the building is in territory without municipal organization for which a fire department has been established, the fire chief appointed for the fire department;
- (c) subject to clause (e), if the building is in a municipality, or a part of a municipality, for which no fire department has been established,
 - (i) the community fire safety officer appointed for the municipality or the part, or
 - (ii) if no community fire safety officer has been appointed, the head of the community fire safety team appointed for the municipality or the part;

- (d) subject to clause (e), if the building is in territory without municipal organization for which no fire department has been established, the Fire Marshal;
- (e) if the building is in an area for which no fire department has been established but that is the subject of an agreement under subsection 2 (5) of the Act providing for the area to receive fire protection services from a fire department situated outside the area, the person who is responsible under the agreement for fire protection services in the area.

(3) In assessing a complaint under subsection (1), the person described in subsection (2) shall comply with the directives, if any, issued by the Fire Marshal.

(4) If, after assessing the complaint, the person described in subsection (2) determines that it would be advisable to conduct a fire safety inspection in the building or a part of the building, the person shall ensure that an inspector conducts the fire safety inspection.

(5) The person described in subsection (2) shall ensure that the fire safety inspection conducted under this section is conducted in accordance with the directives, if any, issued by the Fire Marshal.

Mandatory assessment after request for approval

3. (1) If a Chief Fire Official receives a request made by or on behalf of an owner of a building for approval of anything that the fire code requires to be approved or permits to be approved, the Chief Fire Official shall assess the request and determine whether it would be advisable to conduct a fire safety inspection in the building or a part of the building in order to decide whether to grant or refuse the approval.

(2) In assessing a request under subsection (1), the Chief Fire Official shall comply with the directives, if any, issued by the Fire Marshal.

(3) If, after assessing the request, the Chief Fire Official determines that it would be advisable to conduct a fire safety inspection in the building or a part of the building in order to decide whether to grant or refuse the approval, he or she shall ensure that an inspector conducts the fire safety inspection.

(4) The Chief Fire Official shall ensure that the fire safety inspection conducted under this section is conducted in accordance with the directives, if any, issued by the Fire Marshal.

Required information, vulnerable occupancies

4. (1) This section applies if a fire safety inspection is conducted under section 2 or 3 in a care occupancy, care and treatment occupancy or retirement home.

(2) If the person ensuring that the fire safety inspection is conducted in the care occupancy, care and treatment occupancy or retirement home is not the Fire Marshal, the person shall file the following information with the Fire Marshal in the form and manner and within the time period directed by the Fire Marshal:

1. The operating name of the care occupancy, care and treatment occupancy or retirement home.
2. The street address of the care occupancy, care and treatment occupancy or retirement home.
3. The classification of the care occupancy, care and treatment occupancy or retirement home as a care occupancy, care and treatment occupancy or retirement home.
4. The date the fire safety inspection was conducted.

(3) If the person ensuring that the fire safety inspection is conducted in the care occupancy, care and treatment occupancy or retirement home is the Fire Marshal, he or she shall keep a record of the information described in subsection (1).

5. OMITTED (provides for coming into force of provisions of this Regulation).

ONTARIO REGULATION 378/18

COMMUNITY RISK ASSESSMENTS

Mandatory use

1. Every municipality, and every fire department in a territory without municipal organization, must,
 - (a) complete and review a community risk assessment as provided by this Regulation; and
 - (b) use its community risk assessment to inform decisions about the provision of fire protection services.

What it is

2. (1) A community risk assessment is a process of identifying, analyzing, evaluating and prioritizing risks to public safety to inform decisions about the provision of fire protection services.
- (2) A community risk assessment must include consideration of the mandatory profiles listed in Schedule 1.
- (3) A community risk assessment must be in the form, if any, that the Fire Marshal provides or approves.

When to complete (at least every five years)

3. (1) The municipality or fire department must complete a community risk assessment no later than five years after the day its previous community risk assessment was completed.
- (2) If a municipality, or a fire department in a territory without municipal organization, comes into existence, the municipality or fire department must complete a community risk assessment no later than two years after the day it comes into existence.
- (3) REVOKED: O. Reg. 378/18, s. 3 (4).
- (4) REVOKED: O. Reg. 378/18, s. 3 (4).

When to review (at least every year)

4. (1) The municipality or fire department must complete a review of its community risk assessment no later than 12 months after,
 - (a) the day its community risk assessment was completed; and
 - (b) the day its previous review was completed.
- (2) The municipality or fire department must also review its community risk assessment whenever necessary.

(3) The municipality or fire department must revise its community risk assessment if it is necessary to reflect,

- (a) any significant changes in the mandatory profiles;
- (b) any other significant matters arising from the review.

(4) The municipality or fire department does not have to review its community risk assessment if it expects to complete a new community risk assessment on or before the day it would complete the review.

5. OMITTED (provides for coming into force of provisions of this Regulation).

Schedule 1

Mandatory Profiles

1. Geographic profile: The physical features of the community, including the nature and placement of features such as highways, waterways, railways, canyons, bridges, landforms and wildland-urban interfaces.

2. Building stock profile: The types of buildings in the community, the uses of the buildings in the community, the number of buildings of each type, the number of buildings of each use and any building-related risks known to the fire department.

3. Critical infrastructure profile: The capabilities and limitations of critical infrastructure, including electricity distribution, water distribution, telecommunications, hospitals and airports.

4. Demographic profile: The composition of the community's population, respecting matters relevant to the community, such as population size and dispersion, age, gender, cultural background, level of education, socioeconomic make-up, and transient population.

5. Hazard profile: The hazards in the community, including natural hazards, hazards caused by humans, and technological hazards.

6. Public safety response profile: The types of incidents responded to by other entities in the community, and those entities' response capabilities.

7. Community services profile: The types of services provided by other entities in the community, and those entities' service capabilities.

8. Economic profile: The economic sectors affecting the community that are critical to its financial sustainability.

9. Past loss and event history profile: The community's past emergency response experience, including the following analysis:

- 1. The number and types of emergency responses, injuries, deaths and dollar losses.
- 2. Comparison of the community's fire loss statistics with provincial fire loss statistics.

Note: Each profile is to be interpreted as extending only to matters relevant to fire protection services.

ONTARIO REGULATION 144/20

**EXEMPTION FOR TEMPORARY HEALTH AND RESIDENTIAL
FACILITIES**

Note: This Regulation is revoked on March 31, 2027. (See: O. Reg. 437/22, s. 2, O Reg. 32/23, s. 1 and O. Reg. 127/24, s. 1)

Interpretation

1. In this Regulation,

“building” has the same meaning as in the fire code; (“bâtiment”)

“building code” means the building code as defined in the *Building Code Act, 1992*; (“code du bâtiment”)

“business and personal services occupancy” has the same meaning as in the fire code; (“établissement d’affaires”)

“care and treatment occupancy” has the same meaning as in the fire code; (“établissement de soins et de traitement”)

“care occupancy” has the same meaning as in the fire code; (“établissement de soins”)

“Chief Fire Official” has the same meaning as in the fire code; (“chef de la sécurité-incendie”)

“construction” means doing anything in the erection, installation, extension or material alteration or repair of a building or structure, and includes the installation of a building unit that was fabricated or moved from elsewhere; (“construction”)

“owner” has the same meaning as in the fire code; (“propriétaire”)

“residential occupancy” has the same meaning as in the fire code; (“habitation”)

“temporary health or residential facility” means a building or structure that is used or intended to be used to provide, on a temporary basis for the purpose of responding to the COVID-19 pandemic and its effects, health care or sleeping accommodation, by or on behalf of,

- (a) any health service provider as defined in paragraphs 1 to 5 of the definition of “health service provider” in subsection 1 (2) of the *Connecting Care Act, 2019*, or
- (b) any government, including, for greater certainty, a municipality. (“établissement de santé ou d’hébergement temporaire”)

Exemption from certain requirements in the Fire Code

2. Subject to section 4, a temporary health or residential facility is exempt from Articles 2.1.2.1., 2.1.2.2. and 2.9.1.1. and Part 9 of Division B of the fire code.

Classification of temporary health or residential facilities

3. For the purposes of applying the fire code, a temporary health or residential facility shall be classified by the Chief Fire Official as either a business and personal services occupancy, a care occupancy, a care and treatment occupancy or a residential occupancy in accordance with its principal use.

Application of Part 9 if no construction

4. If the conversion of all or part of an existing building or structure to a temporary health or residential facility takes place without construction, the requirements of Part 9 of Division B of the fire code that were applicable to the building or structure prior to the conversion continue to apply to the part of the building or structure that is occupied by the temporary health or residential facility.

Notification

5. An owner of a temporary health or residential facility shall notify the Chief Fire Official of the location of the temporary health or residential facility prior to or as soon as practicable after,

- (a) construction of the temporary health or residential facility begins; or
- (b) conversion of the building or structure into a temporary health or residential facility begins.

ONTARIO REGULATION 343/22

FIREFIGHTER CERTIFICATION

Definition

1. In this Regulation,

“NFPA” means the National Fire Protection Association.

Mandatory certification

2. (1) Every municipality, and every fire department in a territory without municipal organization, must ensure that its firefighters perform a fire protection service set out in Column 1 of Table 1 only if, on or after the corresponding day specified in Column 3 of that Table,

- (a) the firefighter performing the fire protection service is certified, at a minimum, to the corresponding certification standard set out in Column 2 of that Table; or
- (b) this Regulation provides that the certification standard referred to in clause (a) does not apply with respect to the firefighter.

(2) The certification must be,

- (a) provided by the Fire Marshal; or
- (b) an accreditation from the International Fire Safety Accreditation Congress (IFSAC), or a Pro Board seal, that is recognized by the Fire Marshal as equivalent to the certification provided by the Fire Marshal.

Exceptions

3. (1) A certification standard set out in Column 2 of item 1 or 2 of Table 1 does not apply with respect to a firefighter who,

- (a) is performing a service that is within the scope of that item;
- (b) has been a firefighter for no more than 36 months; and
- (c) is operating under the supervision of a firefighter certified to that standard.

(2) A certification standard set out in Column 2 of Table 1 does not apply with respect to a firefighter who is,

- (a) temporarily assigned to perform a different fire protection service for which a different minimum certification is required; and
- (b) operating under the supervision of a firefighter who has obtained the certification corresponding to the fire protection service or services being delivered.

(3) A certification standard set out in Column 2 of item 17 or 18 of Table 1 does not apply with respect to a firefighter who performed Pump Operations before the day this Regulation came into force.

(4) If a firefighter was previously certified under this Regulation for a fire protection service listed in Column 1 of Table 1, that certification continues to be valid even if the requirements for obtaining that certification are subsequently updated or changed.

(5) If the Fire Marshal granted a firefighter a letter of compliance with a certification standard before the day this Regulation came into force, the letter of compliance continues to be valid and the firefighter is deemed to be in compliance with the corresponding certification standard set out in Column 2 of Table 1.

Transition

4. (1) Subject to subsection (2), a certification standard set out in Column 2 of item 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14 or 15 of Table 1 does not apply with respect to a firefighter if the Fire Marshal issues the firefighter a letter of compliance with the certification standard in accordance with this section.

(2) The Fire Marshal shall issue a letter of compliance with a certification standard to a firefighter if,

- (a) the firefighter has been performing the fire protection service that the standard corresponds to since at least,
 - (i) January 1, 2021, in the case of a certification standard set out in Column 2 of item 1, 2, 3, 4, 5, 6 or 7, or
 - (ii) January 1, 2020, in the case of a certification standard set out in Column 2 of item 9, 10, 11, 12, 13, 14 or 15;
- (b) before September 30, 2023, the firefighter's municipality, or fire department in an area without municipal organization, provides the Fire Marshal with information, such as training records, to

demonstrate to the satisfaction of the Fire Marshal that the firefighter, through past training and experience, has obtained the requisite knowledge and requisite skills associated with the corresponding standard; and

(c) the Fire Marshal is satisfied with the information provided under clause (b).

5. OMITTED (provides for coming into force of provisions of this Regulation).

TABLE 1

Mandatory Certification for Fire Protection Services

Item	Column 1 Fire protection service	Column 2 Minimum Certification Standard	Column 3 Compliance Deadline
1.	Firefighter Exterior Attack: Fire suppression operations from the exterior of the building only.	The following job performance requirements of NFPA 1001, “Standard for Fire Fighter Professional Qualifications”, 2019 Edition, Chapter 4 (Firefighter I) and Chapter 5 (Firefighter II): 4.1, 4.2, 4.3.1, 4.3.2, 4.3.3, 4.3.6, 4.3.7, 4.3.8, 4.3.10 (A1-A9, B1-B3, B4 (exterior stairway), B5-B10), 4.3.15, 4.3.16, 4.3.17, 4.3.18, 4.3.19, 4.3.20, 4.3.21, 4.5 5.1, 5.2, 5.3.1, 5.3.2 (A1-A4), 5.3.3, 5.3.4, 5.4.2, 5.5.3, 5.5.4, 5.5.5	July 1, 2026
2.	Firefighter Exterior Attack and auto extrication: Fire suppression operations from the exterior of the building only and auto extrication rescue.	All job performance requirements in item 1 and the following job performance requirements of NFPA 1001, “Standard for Fire Fighter Professional Qualifications”, 2019 Edition, Chapter 5 (Firefighter II): 5.4.1	July 1, 2026
3.	Firefighter Exterior Attack and hazardous materials response: Fire suppression operations from the exterior of the building only and Operations-level hazardous materials response.	All job performance requirements in item 1, all job performance requirements of NFPA 1072, “Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications”, 2017 Edition, Chapter 5 (Operations) and the following job performance requirements of Chapter 6 (Operations Mission Specific): 6.2 and 6.6	July 1, 2026

TABLE 1
Mandatory Certification for Fire Protection Services
(continued)

Item	Column 1 Fire protection service	Column 2 Minimum Certification Standard	Column 3 Compliance Deadline
4.	Firefighter Exterior Attack, auto extrication and hazardous materials response: Fire suppression operations from the exterior of the building only, automobile extrication rescue and Operations-level hazardous materials response.	All job performance requirements in items 1, 2 and 3.	July 1, 2026
5.	Firefighter Interior Attack: Fire suppression operations that enter the interior of the building and can perform rescue.	All job performance requirements in item 1 and the following job performance requirements of NFPA 1001, “Standard for Fire Fighter Professional Qualifications”, 2019 Edition, Chapter 4 (Firefighter I) and Chapter 5 (Firefighter II): 4.3.4, 4.3.9, 4.3.10 (A10-A11, B4 (interior stairway), B11), 4.3.11, 4.3.12, 4.3.13, 4.3.14 5.3.2 (A5-A9, B1-B6)	July 1, 2026
6.	Firefighter Interior Attack and auto extrication: Fire suppression operations that enter the interior of the building and can perform rescue and automobile extrication rescue.	All job performance requirements in item 5 and the following job performance requirements of NFPA 1001, “Standard for Fire Fighter Professional Qualifications”, 2019 Edition, Chapter 5 (Firefighter II): 5.4.1	July 1, 2026
7.	Firefighter Interior Attack and hazardous materials response: Fire suppression operations that enter the interior of the building and Operations-level hazardous materials response.	All job performance requirements in item 5, all job performance requirements of NFPA 1072, “Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications”, 2017 Edition, Chapter 5 (Operations) and the following job performance requirements of Chapter 6 (Operations Mission Specific): 6.2 and 6.6	July 1, 2026

TABLE 1
Mandatory Certification for Fire Protection Services
(continued)

Item	Column 1 Fire protection service	Column 2 Minimum Certification Standard	Column 3 Compliance Deadline
8.	Firefighter Interior Attack, auto extrication and hazardous materials response: Fire suppression operations that enter the interior of the building and can perform rescue, automobile extrication rescue and Operations-level hazardous materials response (full service firefighter).	All job performance requirements of NFPA 1001, “Standard for Fire Fighter Professional Qualifications”, 2019 Edition, Chapter 5 (Firefighter II).	July 1, 2026
9.	Team Lead Exterior Attack: Supervision of firefighters that provide fire suppression operations from the exterior of the building only.	All job performance requirements in item 1 and the following job performance requirements of NFPA 1021, “Standard for Fire Officer Professional Qualifications”, 2020 edition, Chapter 4 (Fire Officer I): 4.1.1, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.4.1, 4.4.2, 4.4.4, 4.4.5, 4.5.3, 4.6, 4.7.1, 4.7.3	July 1, 2026
10.	Team Lead Exterior Attack and auto extrication: Supervision of firefighters that provide fire suppression operations from the exterior of the building only or that provide auto extrication rescue.	All job performance requirements in item 2 and the following job performance requirements of NFPA 1021, “Standard for Fire Officer Professional Qualifications”, 2020 edition, Chapter 4 (Fire Officer I): 4.1.1, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.4.1, 4.4.2, 4.4.4, 4.4.5, 4.5.3, 4.6, 4.7.1, 4.7.3	July 1, 2026
11.	Team Lead Exterior Attack and hazardous materials response: Supervision of firefighters that provide fire suppression operations from the exterior of the building only or that provide Operations-level hazardous materials response.	All job performance requirements in item 3 and the following job performance requirements of NFPA 1021, “Standard for Fire Officer Professional Qualifications”, 2020 edition, Chapter 4 (Fire Officer I): 4.1.1, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.4.1, 4.4.2, 4.4.4, 4.4.5, 4.5.3, 4.6, 4.7.1, 4.7.3	July 1, 2026

TABLE 1

Mandatory Certification for Fire Protection Services
(continued)

Item	Column 1 Fire protection service	Column 2 Minimum Certification Standard	Column 3 Compliance Deadline
12.	Team Lead Exterior Attack, auto extrication and hazardous materials: Supervision of firefighters that provide fire suppression operations from the exterior of the building only or that provide automobile extrication rescue or Operations-level hazardous materials response.	All job performance requirements in item 4, and the following job performance requirements of NFPA 1021, “Standard for Fire Officer Professional Qualifications”, 2020 edition, Chapter 4 (Fire Officer I): 4.1.1, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.4.1, 4.4.2, 4.4.4, 4.4.5, 4.5.3, 4.6, 4.7.1, 4.7.3	July 1, 2026
13.	Team Lead Interior Attack: Supervision of firefighters that provide fire suppression operations from the interior of the building and can perform rescue.	All job performance requirements in item 5 and the following job performance requirements of NFPA 1021, “Standard for Fire Officer Professional Qualifications”, 2020 edition, Chapter 4 (Fire Officer I): 4.1.1, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.4.1, 4.4.2, 4.4.4, 4.4.5, 4.5.3, 4.6, 4.7.1, 4.7.3	July 1, 2026
14.	Team Lead Interior Attack and auto extrication: Supervision of firefighters that provide fire suppression operations from the interior of the building and can perform rescue or that provide automobile extrication rescue.	All job performance requirements in item 6 and the following job performance requirements of NFPA 1021, “Standard for Fire Officer Professional Qualifications”, 2020 edition, Chapter 4 (Fire Officer I): 4.1.1, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.4.1, 4.4.2, 4.4.4, 4.4.5, 4.5.3, 4.6, 4.7.1, 4.7.3	July 1, 2026
15.	Team Lead Interior Attack and hazardous materials response: Supervision of firefighters that provide fire suppression operations from the interior of the building and can perform rescue or that provide Operations-level hazardous materials response.	All job performance requirements in item 7 and the following job performance requirements of NFPA 1021, “Standard for Fire Officer Professional Qualifications”, 2020 edition, Chapter 4 (Fire Officer I): 4.1.1, 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.4.1, 4.4.2, 4.4.4, 4.4.5, 4.5.3, 4.6, 4.7.1, 4.7.3	July 1, 2026

TABLE 1
Mandatory Certification for Fire Protection Services
(continued)

Item	Column 1 Fire protection service	Column 2 Minimum Certification Standard	Column 3 Compliance Deadline
16.	Team Lead Interior Attack, auto extrication and hazardous materials response: Supervision of firefighters that provide fire suppression operations from the interior of the building and can perform rescue or that provide automobile extrication rescue or Operations-level hazardous materials response (full service fire officer).	All job performance requirements of NFPA 1021 “Standard for Fire Officer Professional Qualifications”, 2020 edition, Chapter 4 (Fire Officer I).	July 1, 2026
17.	Pump Operations: Operation of a pumper apparatus without driving the apparatus, or where the apparatus does not require a class D license.	All job performance requirements of NFPA 1002, “Standard for Fire Apparatus Driver/Operator Professional Qualifications”, 2017 Edition, Chapter 5 (Apparatus Equipped with Fire Pump), without pre-requisites in Chapter 4.	July 1, 2026
18.	Pump Operations: driver: Driving and operating a pumper apparatus that requires a class D license.	All job performance requirements in NFPA 1002 “Standard for Fire Apparatus Driver/Operator Professional Qualifications”, 2017 Edition, Chapter 5 (Apparatus Equipped with Fire Pump).	July 1, 2026
19.	Fire Prevention/Inspection Level I: conducting fire and life safety inspections.	All job performance requirements of NFPA 1031, “Standard for Professional Qualifications for Fire Inspector and Plan Examiner”, 2014 Edition, Chapter 4 (Fire Inspector I).	July 1, 2026
20.	Fire Prevention/Inspection Level II: conducting fire and life safety inspections including in facilities that store, handle or use flammable/combustible liquids.	All job performance requirements in item 19 and NFPA 1031, “Standard for Professional Qualifications for Fire Inspector and Plan Examiner”, 2014 Edition, Chapter 5 (Fire Inspector II).	July 1, 2026
21.	Fire Investigator: conducting fire cause and origin investigations.	All job performance requirements of NFPA 1033, “Professional Qualifications for Fire Investigator”, 2014 Edition, Chapter 4 (Fire Investigator).	July 1, 2026

TABLE 1

Mandatory Certification for Fire Protection Services
(continued)

Item	Column 1 Fire protection service	Column 2 Minimum Certification Standard	Column 3 Compliance Deadline
22.	Fire and Life Safety Educator: providing fire and life safety education.	All job performance requirements of NFPA 1035, “Standard on Fire and Life Safety Educator, Public Information Officer, Youth Firesetter Intervention Specialist, and Youth Firesetter Program Manager Professional Qualifications”, 2015 Edition, Chapter 4 (Fire and Life Safety Educator I).	July 1, 2026
23.	Training Officer Level I: providing training and education to other fire personnel.	All job performance requirements of NFPA 1041, “Standard for Fire and Emergency Services Instructor Professional Qualifications”, 2019 Edition, Chapter 4 (Fire and Emergency Services Instructor I).	July 1, 2026
24.	Training Officer Level II: providing training and education to other fire personnel including lead instructor roles at live fire and above or below grade technical rescue practical training.	All job performance requirements in item 23 and NFPA 1041, “Standard for Fire and Emergency Services Instructor Professional Qualifications”, 2019 Edition, Chapter 5 (Fire and Emergency Services Instructor II).	July 1, 2026
25.	Emergency Communicators Level I: taking emergency calls.	All job performance requirements of NFPA 1061, “Standard for Public Safety Telecommunications Personnel Professional Qualifications”, 2018 Edition, Chapter 4 (Public Safety Telecommunicator I).	July 1, 2026
26.	Emergency Communicators Level II: taking emergency calls and dispatching emergency vehicles.	All job performance requirements in item 25 and NFPA 1061, “Standard for Public Safety Telecommunications Personnel Professional Qualifications”, 2018 Edition, Chapter 5 (Public Safety Telecommunicator II).	July 1, 2026
27.	Incident Safety Officers: undertaking the primary role of incident safety officer at emergency calls.	All job performance requirements of NFPA 1521, “Standard for Fire Department Safety Officer Professional Qualifications”, 2020 Edition, Chapter 5 (Incident Safety Officer).	July 1, 2026

TABLE 1
Mandatory Certification for Fire Protection Services
(continued)

Item	Column 1 Fire protection service	Column 2 Minimum Certification Standard	Column 3 Compliance Deadline
28.	Hazardous Materials Response – Operations Mission Specific Level: responding to emergencies involving hazardous materials at the Operations Mission Specific Level.	All job performance requirements of NFPA 1072, “Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications”, 2017 Edition, Chapter 6 (Operations Mission Specific)	July 1, 2026
29.	Hazardous Materials Response – Technician Level: responding to emergencies involving hazardous materials at the Technician Level.	All job performance requirements of NFPA 1072, “Standard for Hazardous Materials/Weapons of Mass Destruction Emergency Response Personnel Professional Qualifications”, 2017 Edition, Chapter 7 (Hazardous Materials Technician).	July 1, 2026
30.	Rope Rescue – Operations: rope rescue at the Operations Level.	The following job performance requirements of NFPA 1006, “Standard for Technical Rescue Personnel Professional Qualifications”, 2021 Edition, Chapter 5 (Rope Rescue) (Operations): 5.2	July 1, 2028
31.	Rope Rescue – Technician: rope rescue at the Technician Level.	The following job performance requirements of NFPA 1006, “Standard for Technical Rescue Personnel Professional Qualifications”, 2021 Edition, Chapter 5 (Rope Rescue) (Technician): 5.3	July 1, 2028
32.	Structural Collapse – Operations: structural collapse rescue at the Operations Level.	The following job performance requirements of NFPA 1006, “Standard for Technical Rescue Personnel Professional Qualifications”, 2021 Edition, Chapter 6 (Structural Collapse Rescue) (Operations): 6.2	July 1, 2028

TABLE 1

Mandatory Certification for Fire Protection Services
(continued)

Item	Column 1 Fire protection service	Column 2 Minimum Certification Standard	Column 3 Compliance Deadline
33.	Structural Collapse – Technician: structural collapse rescue at the Technician Level.	The following job performance requirements of NFPA 1006, “Standard for Technical Rescue Personnel Professional Qualifications”, 2021 Edition, Chapter 6 (Structural Collapse Rescue) (Technician): 6.3	July 1, 2028
34.	Confined Space – Operations: confined space rescue at the Operations Level.	The following job performance requirements of NFPA 1006, “Standard for Technical Rescue Personnel Professional Qualifications”, 2021 Edition, Chapter 7 (Confined Space Rescue) (Operations): 7.2	July 1, 2028
35.	Confined Space – Technician: confined space rescue at the Technician Level.	The following job performance requirements of NFPA 1006, “Standard for Technical Rescue Personnel Professional Qualifications”, 2021 Edition, Chapter 7 (Confined Space Rescue) (Technician): 7.3	July 1, 2028
36.	Trench Rescue – Operations: trench rescue at the Operations Level.	The following job performance requirements of NFPA 1006, “Standard for Technical Rescue Personnel Professional Qualifications”, 2021 Edition, Chapter 12 (Trench Rescue) (Operations): 12.2	July 1, 2028
37.	Trench Rescue – Technician: trench rescue at the Technician Level.	The following job performance requirements of NFPA 1006, “Standard for Technical Rescue Personnel Professional Qualifications”, 2021 Edition, Chapter 12 (Trench Rescue) (Technician): 12.3	July 1, 2028

TABLE 1

Mandatory Certification for Fire Protection Services
(continued)

Item	Column 1 Fire protection service	Column 2 Minimum Certification Standard	Column 3 Compliance Deadline
38.	Surface Water Rescue – Operations: surface water rescue at the Operations Level.	The following job performance requirements of NFPA 1006, “Standard for Technical Rescue Personnel Professional Qualifications”, 2021 Edition, Chapter 17 (Surface Water Rescue) (Operations): 17.2	July 1, 2028
39.	Surface Water Rescue – Technician: surface water rescue at the Technician Level.	The following job performance requirements of NFPA 1006, “Standard for Technical Rescue Personnel Professional Qualifications”, 2021 Edition, Chapter 17 (Surface Water Rescue) (Technician): 17.3	July 1, 2028
40.	Swift Water Rescue – Operations: swift water rescue at the Operations Level.	The following job performance requirements of NFPA 1006, “Standard for Technical Rescue Personnel Professional Qualifications”, 2021 Edition, Chapter 18 (Swiftwater Rescue) (Operations): 18.2	July 1, 2028
41.	Swift Water Rescue – Technician: swift water rescue at the Technician Level.	The following job performance requirements of NFPA 1006, “Standard for Technical Rescue Personnel Professional Qualifications”, 2021 Edition, Chapter 18 (Swiftwater Rescue) (Technician): 18.3	July 1, 2028
42.	Ice Water Rescue – Operations: ice water rescue at the Operations Level.	The following job performance requirements of NFPA 1006, “Standard for Technical Rescue Personnel Professional Qualifications”, 2021 Edition, Chapter 20 (Ice Rescue) (Operations): 20.2	July 1, 2028

TABLE 1

Mandatory Certification for Fire Protection Services
(continued)

Item	Column 1 Fire protection service	Column 2 Minimum Certification Standard	Column 3 Compliance Deadline
43.	Ice Water Rescue – Technician: ice water rescue at the Technician Level.	The following job performance requirements of NFPA 1006, “Standard for Technical Rescue Personnel Professional Qualifications”, 2021 Edition, Chapter 20 (Ice Rescue) (Technician): 20.3	July 1, 2028

O. REG. 505/24**COMPLIANCE EXTENSION FOR LONG-TERM CARE HOMES**

Note: This Regulation is revoked on July 1, 2026. (See: O. Reg. 505/24, s. 4.)

Definitions**1.** In this Regulation,

“building” has the same meaning as in the fire code; (“bâtiment”)

“building code” means the building code as defined in the *Building Code Act, 1992*; (“code du bâtiment”)

“Chief Fire Official” has the same meaning as in the fire code; (“chef de la sécurité-incendie”)

“development agreement” has the same meaning as in section 1 of Ontario Regulation 246/22 (General) made under the *Fixing Long-Term Care Act, 2021*; (“entente de développement”)

“inspection” has the same meaning as in the fire code; (“inspection”)

“licensee” has the same meaning as in subsection 2 (1) of the *Fixing Long-Term Care Act, 2021*; (“titulaire de permis”)

“long-term care home” has the same meaning as in subsection 2 (1) of the *Fixing Long-Term Care Act, 2021*; (“foyer de soins de longue durée”)

“owner” has the same meaning as in the fire code; (“propriétaire”)

“sprinklered” means that a building complies with the requirements of Article 9.4.5.5. of Division B of the fire code or with the sprinkler requirements for care and treatment occupancies in the building code”; (“protégé par gicleurs”)

“supervisory staff” has the same meaning as in the fire code; (“personnel de surveillance”)

“test” has the same meaning as in the fire code. (“essai”)

Application

2. (1) Subject to subsection (2), this Regulation applies to a long-term care home if, before January 1, 2025, the home does not meet the requirements of Article 9.4.5.5. of Division B of the fire code and the licensee of the home meets one of the following requirements:

1. The licensee has entered into a contract to have the home sprinklered on or before July 1, 2026.
2. The licensee has done both of the following:
 - (i.) The licensee has entered into a development agreement that meets the following criteria:
 - A. The agreement is with respect to the redevelopment of the beds of the long-term care home at the existing location of the home or at a different location.
 - B. The terms of the agreement require construction to be carried out in accordance with the building code.
 - C. The terms of the agreement require construction to be completed by a date that is on or before July 1, 2026.
 - (ii.) The licensee has received approval in writing from the Minister of Long-Term Care to commence construction under the development agreement.

3. The licensee has entered into a closure agreement for the home under subsection 361 (5) of Ontario Regulation 246/22 of the *Fixing Long-Term Care Act, 2021*.

(2) This Regulation ceases to apply to a long-term care home in any of the following circumstances:

1. The development agreement that the licensee of the home entered into and that is referred to in subparagraph 2 i of subsection (1) is terminated.
2. The approval of the Minister of Long-Term Care that the licensee of the home received in accordance with subparagraph 2 ii of subsection (1) expires.

3. The home meets the requirements of Article 9.4.5.5. of Division B of the fire code.

Extended compliance time

3. (1) Despite Sentence 9.1.3.1.(1) of Division B of the fire code and subject to subsection (2) of this section, the owner of a building containing a long-term care home to which this Regulation applies is not required to comply with Article 9.4.5.5. of Division B of the fire code as of January 1, 2025, and instead the owner shall ensure compliance with that Article as of July 1, 2026.

(2) The extended compliance timeline in subsection (1) is subject to the following conditions:

1. The owner shall ensure that at least one of the supervisory staff is on duty and present on each floor of the home at all times and at least one of those supervisory staff is assigned to meet the following fire watch duty requirements:
 - (i.) The supervisory staff member must be familiar with the fire emergency procedures documented in the fire safety plan.

- (ii.) The supervisory staff member must tour the building at least once during each four-hour period to ensure that means of egress are kept clear and that fire hazards are noted and addressed, as appropriate.
2. The owner shall ensure that, on or after January 31, 2025, all supervisory staff that are on duty and present in the home in accordance with paragraph 1 have successfully completed the Fire Safety Planning eLearning: Training for Supervisory Staff, hosted by the Public Services Health and Safety Association.
3. The owner shall submit a certificate or other document attesting to each supervisory staff member's successful completion of the training referred to in paragraph 2 to the Chief Fire Official within 15 days after the day the staff member has completed the training.
4. The owner shall ensure that the requirements of Sentence 2.8.3.2.(6) of Division B of the fire code are carried out at least once during each three-month period.
5. The owner shall ensure that the fire alarm system inspection and testing requirements that are mandated by Sentence 6.3.2.2.(1) of Division B of the fire code to be carried out annually are instead carried out at least once during each six-month period.
6. The owner shall ensure that the voice communication system test requirements that are mandated by Article 6.3.2.4. of Division B of the fire code to be carried out annually are instead carried out at least once during each six-month period.
7. The owner shall submit a record attesting to the completion of the requirements referred to in paragraphs 5 and 6 to the Chief Fire Official within 15 days after the day the owner receives the record from the service provider who performed the testing.
8. The owner shall ensure that one 2A:10B:C rated multi-purpose portable extinguisher is provided at each nurses station where staff carry out their administrative duties.
4. OMITTED (provides for amendments to this Regulation).
5. OMITTED (provides for coming into force of provisions of this Regulation).

ONTARIO REGULATION 260/25

ADMINISTRATIVE PENALTIES

PART I

INTERPRETATION

Definitions

1. In this Regulation,

“municipality” means the municipality in which the contravention that is the subject of a penalty order occurred; (“municipalité”)

“penalty order” means an order imposing an administrative penalty that is made under subsection 30.2 (2) of the Act. (“ordonnance de pénalité”)

PART II

PENALTY ORDERS

Persons who may impose administrative penalty in municipalities

2. (1) Subsection (2) applies to municipalities that have both a screening officer and a hearing officer described in section 7.

(2) The following persons are prescribed as authorized persons for the purpose of section 30.2 of the Act in respect of any contravention that takes place in a municipality described in subsection (1) of this section:

1. The Fire Marshal.
2. An assistant to the Fire Marshal.

Prescribed provisions that may give rise to administrative penalty

3. The provisions listed in Schedule 1 to this Regulation are prescribed for the purposes of subsection 30.2 (2) of the Act.

Amount of penalty

4. (1) The amount of the penalty for a contravention of a provision listed in Schedule 1 to this Regulation is,

- (a) the first time an order is issued for a contravention of the provision, \$200;
- (b) the second time an order is issued for a contravention of the same provision, \$400; or
- (c) the third or subsequent time an order is issued for a contravention of the same provision, \$600.

(2) For the purposes of subsection (1), a penalty order for the contravention of a provision is considered to be a second, third or subsequent order in respect of the same provision if the order is issued within three years after the first order was issued.

Service of penalty order

5. A penalty order shall be served on the person who is subject to the order in accordance with section 77 of the Act.

PART III

REVIEW AND PAYMENT OF PENALTY ORDERS IN MUNICIPALITIES

Review

Application

6. This Part applies to penalty orders for contraventions that occurred in a municipality and that are issued by an authorized person described in subsection 2 (2).

Prescribed reviewer

7. (1) The following persons are prescribed for the purposes of subsection 30.2 (9) of the Act in respect of the stages of a review described in paragraphs 1 to 3 of subsection 8 (1) of this Regulation:

1. A screening officer appointed by the municipality to review administrative penalties described in section 2 of Ontario Regulation 611/06 (Administrative Penalties) made under the *City of Toronto Act, 2006*.
2. A screening officer appointed by the municipality to review administrative penalties described in section 2 of Ontario Regulation 333/07 (Administrative Penalties) made under the *Municipal Act, 2001*.
3. A screening officer appointed by the municipality to review penalty orders.

(2) The following persons are prescribed for the purposes of subsection 30.2 (9) of the Act in respect of the stages of a review described in paragraphs 4 to 7 of subsection 8 (1) of this Regulation:

1. A hearing officer appointed by the municipality to review administrative penalties described in section 2 of Ontario Regulation 611/06 (Administrative Penalties) made under the *City of Toronto Act, 2006*.
2. A hearing officer appointed by the municipality to review administrative penalties described in section 2 of Ontario Regulation 333/07 (Administrative Penalties) made under the *Municipal Act, 2001*.
3. A hearing officer appointed by the municipality to review penalty orders.

Review process

8. (1) A review of a penalty order described in section 6 shall be conducted as follows:

1. A person who is subject to the penalty order may commence the first stage of a review by requesting, in the manner set out in the order, a review of the order by a screening officer.
2. The screening officer may affirm or rescind the penalty order, or amend it to reduce the amount of the penalty, and shall do so as soon as practical after the review is complete.
3. The screening officer shall send a copy of the decision to the person who requested the review by mail, courier or electronic means as soon as practical after the decision is made.
4. The person who requested the first stage of the review may commence the second stage of the review by requesting a review of the screening officer's decision by a hearing officer.
5. A request under paragraph 4 must be made within 30 days after the date of the decision of the screening officer.

6. The hearing officer may affirm or rescind the penalty order, or amend it to reduce the amount of the penalty, and shall do so as soon as practical after the review is complete.

7. The hearing officer shall send a copy of the decision to the person who requested the review by mail, courier or electronic means as soon as practical after the decision is made.

(2) If a screening officer considers it fair and appropriate in the circumstances, the officer may extend the 30-day period to commence a review under subsection 30.2 (10) of the Act, and the extension may be made even after the 30-day period has expired.

(3) If a hearing officer considers it fair and appropriate in the circumstances, the officer may extend the 30-day period mentioned in paragraph 5 of subsection (1) to request a review and the extension may be made even after the 30-day period has expired.

Conduct of a review

9. (1) A screening officer or hearing officer shall determine whether the stage of the review for which they are responsible is to be conducted orally, electronically or in writing and shall ensure that the person who requested the review is informed of the determination.

(2) If a date and time is set for the person who requested the review to make submissions in respect of any stage of a review, the person shall attend at the set date and time.

(3) A screening officer or hearing officer, as the case may be, shall not decide whether to affirm or rescind the penalty order, or amend it to reduce the amount of the penalty, unless the person who requested the review has been given an opportunity to make submissions in the same manner in which the review is to be conducted.

(4) A hearing officer shall not decide whether to affirm or rescind the penalty order, or amend it to reduce the amount of the penalty, unless a representative of the municipality has been given an opportunity to make submissions in the same manner in which the review is to be conducted.

(5) No witnesses shall be called in the review.

Determination of a review

10. (1) In deciding whether to affirm or rescind the penalty order, or amend it to reduce the amount of the penalty, a screening officer shall determine whether it was reasonable for the authorized person to impose the order.

(2) In deciding whether to affirm or rescind the penalty order, or amend it to reduce the amount of the penalty, a hearing officer shall determine whether the decision of the screening officer was reasonable.

(3) In making a determination mentioned in subsection (1) or (2), the screening officer or hearing officer, as the case may be, may consider the following information:

1. Photographs, drawings or other images.
2. Statements, including certified statements, made by the authorized person who imposed the penalty order.
3. Documents, including certified documents.
4. Statements by the person who requested the review made either in writing or in the manner in which the review is conducted.
5. Statements by or on behalf of the municipality made either in writing or in the manner in which the review is conducted.

6. Any other information, materials or submissions that the screening officer or hearing officer considers to be credible or trustworthy in the circumstances.

Jurisdiction

11. A screening officer or hearing officer, as the case may be, does not have jurisdiction to consider questions relating to the validity of a statute or regulation or the constitutional applicability or operability of any statute or regulation.

Payments

Payment recipient

12. (1) An administrative penalty for a penalty order described in section 6 is payable to the municipality.
(2) The municipality shall collect payment of the administrative penalty.

Deadline for payment if review occurs

13. If a review of a penalty order does not result in the order being rescinded, the person who is subject to the order shall pay the administrative penalty within 30 days after,
- (a) the date of the decision by the screening officer, if no request for a review of the decision was made under paragraph 4 of subsection 8 (1); or
 - (b) the date of the decision by the hearing officer, if a request for review was made under paragraph 4 of subsection 8 (1).

Extension of payment deadline, plan of periodic payments

14. (1) If a screening officer or hearing officer, as the case may be, considers it fair and appropriate in the circumstances, the officer may approve a plan of periodic payments that extends beyond the deadline set out in section 30.2 of the Act or in section 13 of this Regulation.
- (2) An approval mentioned in subsection (1) may be conditional on the payment of a specified amount of the administrative penalty being made on or before a specified date.
- (3) A plan of periodic payments may be approved even after the 30-day period has expired.

Undue hardship

15. (1) The municipality may excuse a person from paying all or part of an administrative penalty if it determines that requiring the person to pay the penalty would cause undue hardship.
- (2) The municipality shall establish a procedure for assessing applications to have all or part of the payment of an administrative penalty excused due to undue hardship.
- (3) A person who wishes to have all or part of their payment excused due to undue hardship shall apply to the municipality in accordance with the procedure established by the municipality.

Municipal fees

16. (1) A municipality shall not charge any fees to,
- (a) commence a review in respect of a penalty order;

(b) extend, under subsection 8 (2) or (3), the period of time in which to commence a review; or

(c) approve, under subsection 14 (1), a plan of periodic payments.

(2) A municipality may, by by-law, impose fees or charges, other than those mentioned in subsection (1), under section 259 of the *City of Toronto Act, 2006* or under section 391 of the *Municipal Act, 2001*, as the case may be, in respect of services related to an administrative penalty imposed under section 30.2 of the Act, but any such fee or charge shall not be included in the amount of the administrative penalty and may be collected at the time that the related service is provided.

17. OMITTED (provides for coming into force of provisions of this Regulation).

SCHEDULE 1

PROVISIONS OF FIRE CODE THAT ARE SUBJECT TO ADMINISTRATIVE PENALTY

Division B provisions subject to administrative penalty

1. The following provisions of Division B of the fire code are subject to an administrative penalty:

1. Article 1.1.1.1.
2. Sentence 1.1.1.2.(3).
3. Sentence 1.1.2.1.(1).
4. Sentence 1.1.2.1.(2).
5. Sentence 1.1.2.1.(3).
6. Sentence 1.1.2.1.(4).
7. Clause 1.1.2.2.(1)(a).
8. Clause 1.1.2.2.(1)(b).
9. Sentence 1.1.2.2.(2).
10. Sentence 2.1.3.5.(7).
11. Sentence 2.1.3.5.(8).
12. Clause 2.2.3.2.(1)(a).
13. Clause 2.2.3.2.(1)(b).
14. Clause 2.2.3.2.(1)(c).
15. Clause 2.2.3.2.(1)(d).
16. Article 2.2.3.3.
17. Sentence 2.2.3.4.(1).
18. Sentence 2.2.3.4.(5).
19. Clause 2.4.1.4.(1)(a).
20. Clause 2.4.1.4.(1)(b).
21. Article 2.4.1.5.

22. Sentence 2.4.3.1.(2).
23. Article 2.4.3.2.
24. Sentence 2.4.4.1.(2).
25. Sentence 2.4.4.1.(3).
26. Article 2.4.4.3.
27. Sentence 2.4.4.4.(1).
28. Sentence 2.5.1.2.(1).
29. Sentence 2.5.1.2.(2).
30. Article 2.5.1.3.
31. Article 2.5.1.4.
32. Clause 2.6.1.4.(2)(a).
33. Clause 2.6.1.4.(2)(b).
34. Article 2.6.1.5.
35. Sentence 2.6.1.8.(1).
36. Article 2.6.1.9.
37. Clause 2.6.1.10.(1)(a).
38. Clause 2.6.1.10.(1)(b).
39. Clause 2.6.1.10.(1)(c).
40. Sentence 2.6.1.14.(1).
41. Sentence 2.6.1.14.(2).
42. Sentence 2.6.3.3.(2).
43. Article 2.6.4.1.
44. Article 2.6.4.2.
45. Sentence 2.7.1.5.(1).
46. Sentence 2.7.1.5.(2).
47. Sentence 2.7.1.7.(1).
48. Sentence 2.7.1.7.(2).
49. Sentence 2.7.1.8.(1).
50. Sentence 2.7.1.8.(2).
51. Sentence 2.7.1.9.(1).
52. Sentence 2.7.1.9.(5).
53. Sentence 2.7.2.2.(4).
54. Sentence 2.7.2.2.(5).
55. Clause 2.7.2.2.(6)(b).
56. Sentence 2.7.2.3.(2).
57. Sentence 2.7.2.3.(3).

- 58. Sentence 2.7.2.3.(4).
- 59. Article 2.7.2.4.
- 60. Article 2.7.3.1.
- 61. Sentence 2.7.3.2.(1).
- 62. Clause 2.7.3.3.(3)(a).
- 63. Clause 2.7.3.3.(3)(b).
- 64. Sentence 2.7.3.3.(4).
- 65. Sentence 2.7.4.1.(2).
- 66. Sentence 2.8.1.2.(1).
- 67. Clause 2.8.1.3.(1)(a).
- 68. Clause 2.8.1.3.(1)(b).
- 69. Article 2.8.1.4.
- 70. Sentence 2.8.2.1.(1).
- 71. Sentence 2.8.2.1.(3).
- 72. Sentence 2.8.2.1.(4).
- 73. Sentence 2.8.2.1.(6).
- 74. Sentence 2.8.2.1.(7).
- 75. Sentence 2.8.2.1.(8).
- 76. Article 2.8.2.4.
- 77. Sentence 2.8.2.8.(1).
- 78. Clause 2.8.2.8.(2)(a).
- 79. Clause 2.8.2.8.(2)(b).
- 80. Sentence 2.8.2.8.(3).
- 81. Sentence 2.8.3.2.(1).
- 82. Sentence 2.8.3.2.(2).
- 83. Clause 2.8.3.2.(3)(a).
- 84. Clause 2.8.3.2.(3)(b).
- 85. Clause 2.8.3.2.(3)(c).
- 86. Clause 2.8.3.2.(4)(a).
- 87. Clause 2.8.3.2.(4)(b).
- 88. Clause 2.8.3.2.(4)(c).
- 89. Sentence 2.8.3.2.(5).
- 90. Sentence 2.8.3.2.(6).
- 91. Sentence 2.8.3.2.(7).
- 92. Article 2.8.3.3.
- 93. Sentence 2.8.3.4.(1).

- 94. Sentence 2.8.3.4.(2).
- 95. Article 2.8.3.5.
- 96. Sentence 2.9.3.1.(1).
- 97. Article 2.10.2.1.
- 98. Article 2.10.2.2.
- 99. Article 2.12.1.5.
- 100. Article 2.12.1.7.
- 101. Clause 2.13.2.1.(1)(a).
- 102. Clause 2.13.2.1.(1)(b).
- 103. Clause 2.13.2.1.(1)(c).
- 104. Clause 2.13.2.1.(1)(d).
- 105. Sentence 2.13.2.1.(2).
- 106. Sentence 2.14.1.2.(2).
- 107. Sentence 2.14.1.5.(2).
- 108. Clause 2.16.2.1.(1)(a).
- 109. Clause 2.16.2.1.(1)(b).
- 110. Clause 2.16.2.1.(2)(a).
- 111. Clause 2.16.2.1.(2)(b).
- 112. Clause 2.16.2.1.(2)(c).
- 113. Clause 2.16.2.1.(2)(d).
- 114. Clause 2.16.2.1.(3)(a).
- 115. Clause 2.16.2.1.(3)(b).
- 116. Clause 2.16.2.1.(3)(c).
- 117. Clause 2.16.2.1.(4)(a).
- 118. Clause 2.16.2.1.(4)(b).
- 119. Clause 2.16.2.1.(4)(c).
- 120. Clause 2.16.2.1.(4)(d).
- 121. Sentence 2.16.2.1.(5).
- 122. Sentence 2.16.2.1.(8).
- 123. Sentence 2.17.2.1.(1).
- 124. Sentence 2.17.2.1.(2).
- 125. Sentence 2.17.2.1.(3).
- 126. Sentence 2.17.2.1.(4).
- 127. Sentence 2.17.2.1.(5).
- 128. Sentence 3.2.1.3.(2).
- 129. Sentence 3.2.7.4.(1).

- 130. Sentence 3.3.1.3.(3).
- 131. Sentence 3.3.1.3.(4).
- 132. Sentence 3.3.1.5.(2).
- 133. Sentence 3.3.1.7.(1).
- 134. Clause 3.3.1.7.(2)(g).
- 135. Sentence 3.3.1.8.(5).
- 136. Sentence 3.3.1.8.(6).
- 137. Article 3.3.1.11.
- 138. Article 3.3.2.6.
- 139. Article 3.3.2.7.
- 140. Sentence 3.3.2.13.(2).
- 141. Article 3.3.2.23.
- 142. Sentence 3.3.2.24.(3).
- 143. Article 3.3.3.3.
- 144. Sentence 3.3.3.4.(1).
- 145. Sentence 3.3.3.4.(2).
- 146. Article 3.3.3.11.
- 147. Sentence 3.4.2.1.(4).
- 148. Sentence 3.4.2.2.(2).
- 149. Article 3.5.1.1.
- 150. Article 3.5.1.2.
- 151. Article 3.5.1.3.
- 152. Article 3.5.1.10.
- 153. Article 3.5.2.3.
- 154. Sentence 3.5.2.4.(1).
- 155. Clause 3.5.2.4.(2)(a).
- 156. Clause 3.5.2.4.(2)(b).
- 157. Sentence 3.5.2.4.(3).
- 158. Clause 5.5.5.7.(1)(a).
- 159. Sentence 5.12.11.4.(2).
- 160. Sentence 5.14.5.3.(2).
- 161. Article 5.14.9.2.
- 162. Sentence 5.16.2.7.(2).
- 163. Article 6.2.1.5.
- 164. Article 6.2.4.4.
- 165. Sentence 6.2.7.4.(1).

- 166. Article 6.2.7.5.
- 167. Sentence 6.2.7.9.(1).
- 168. Article 6.3.1.1.
- 169. Clause 6.3.2.2.(4)(a).
- 170. Clause 6.3.2.2.(4)(b).
- 171. Sentence 6.3.2.2.(5).
- 172. Sentence 6.3.2.6.(3).
- 173. Sentence 6.3.2.6.(4).
- 174. Sentence 6.3.2.6.(5).
- 175. Sentence 6.3.2.6.(6).
- 176. Sentence 6.3.3.3.(1).
- 177. Sentence 6.3.3.3.(2).
- 178. Article 6.3.3.4.
- 179. Article 6.3.3.6.
- 180. Sentence 6.3.4.3.(1).
- 181. Sentence 6.3.4.3.(2).
- 182. Article 6.3.4.4.
- 183. Article 6.3.4.6.
- 184. Article 6.4.2.2.
- 185. Article 6.4.2.3.
- 186. Sentence 6.4.2.6.(1).
- 187. Sentence 6.4.2.6.(2).
- 188. Sentence 6.4.3.7.(1).
- 189. Clause 6.4.3.7.(3)(a).
- 190. Clause 6.4.3.7.(3)(b).
- 191. Clause 6.4.3.7.(3)(c).
- 192. Clause 6.4.3.7.(3)(d).
- 193. Clause 6.4.3.7.(3)(e).
- 194. Clause 6.4.3.7.(3)(f).
- 195. Clause 6.4.3.7.(3)(g).
- 196. Clause 6.4.3.7.(3)(h).
- 197. Sentence 6.4.3.7.(4).
- 198. Sentence 6.5.1.8.(1).
- 199. Sentence 6.5.1.8.(2).
- 200. Article 6.5.2.1.
- 201. Sentence 6.5.2.2.(1).

- 202. Sentence 6.5.2.2.(2).
- 203. Article 6.5.5.1.
- 204. Article 6.5.6.2.
- 205. Article 6.6.2.10.
- 206. Article 6.6.4.2.
- 207. Article 6.6.4.3.
- 208. Article 6.6.5.7.
- 209. Article 6.6.5.8.
- 210. Clause 6.7.1.6.(2)(a).
- 211. Clause 6.7.1.6.(2)(b).
- 212. Article 6.8.2.2.
- 213. Article 6.8.2.4.
- 214. Article 6.8.2.5.
- 215. Sentence 6.10.1.1.(3).
- 216. Sentence 6.10.1.2.(1).
- 217. Sentence 7.2.5.1.(4).
- 218. Sentence 7.2.5.1.(5).
- 219. Sentence 7.2.5.1.(6).
- 220. Sentence 7.2.5.1.(7).
- 221. Sentence 8.1.2.2.(5).
- 222. Sentence 8.1.2.7.(1).
- 223. Clause 8.1.2.8.(2)(a).
- 224. Clause 8.1.2.8.(2)(b).
- 225. Clause 8.1.2.8.(2)(c).
- 226. Clause 8.1.2.8.(2)(d).
- 227. Clause 8.1.2.8.(2)(e).
- 228. Clause 8.1.2.8.(2)(f).
- 229. Clause 8.1.2.8.(2)(g).
- 230. Clause 8.1.2.8.(3)(a).
- 231. Clause 8.1.2.8.(3)(b).
- 232. Article 9.1.4.8.
- 233. Article 9.2.3.14.
- 234. Clause 9.3.3.10.(2)(a).
- 235. Clause 9.3.3.10.(2)(b).
- 236. Clause 9.3.3.10.(2)(c).
- 237. Sentence 9.3.4.5.(1).

- 238. Sentence 9.3.4.5.(2).
- 239. Sentence 9.3.5.1.(1).
- 240. Sentence 9.3.5.1.(2).
- 241. Article 9.4.2.9.
- 242. Sentence 9.5.2.4.(3).
- 243. Sentence 9.5.3.3.(3).
- 244. Clause 9.5.3.5.(1)(a).
- 245. Clause 9.5.3.5.(1)(b).
- 246. Clause 9.5.3.5.(1)(c).
- 247. Clause 9.5.3.5.(3)(a).
- 248. Clause 9.5.3.5.(3)(b).
- 249. Clause 9.5.3.5.(3)(c).
- 250. Clause 9.5.3.5.(3)(d).
- 251. Sentence 9.7.4.3.(1).
- 252. Sentence 9.8.4.2.(4).
- 253. Sentence 9.8.6.1.(2).
- 254. Sentence 9.8.6.1.(3).
- 255. Sentence 9.9.1.2.(1).
- 256. Sentence 9.9.3.10.(3).
- 257. Sentence 9.9.4.13.(1).

Division C provisions subject to administrative penalty

- 2. The following provisions of Division C of the fire code are subject to an administrative penalty:
 - 1. Clause 1.2.1.2.(1)(a).
 - 2. Clause 1.2.1.2.(1)(b).
 - 3. Sentence 1.2.1.2.(3).
 - 4. Sentence 1.2.1.3.(2).
 - 5. Clause 1.2.2.2.(1)(a).
 - 6. Clause 1.2.2.2.(1)(b).
 - 7. Sentence 1.2.2.2.(3).
 - 8. Sentence 1.2.2.3.(2).
 - 9. Clause 1.2.3.2.(1)(a).
 - 10. Clause 1.2.3.2.(1)(b).
 - 11. Clause 1.2.3.3.(1)(a).
 - 12. Clause 1.2.3.3.(1)(b).

FIRE CODE

ONTARIO REGULATION 213/07

made under the

FIRE PROTECTION AND PREVENTION ACT, 1997

Current to January 1, 2026

This document is prepared for convenience only. For accurate reference and current information on amendments to Ontario Regulation 213/07 refer to the Government of Ontario's e-Laws web site at: www.ontario.ca/laws.

Guide to the Fire Code

The Fire Code is divided into three Divisions (A, B and C), each of which utilizes a decimal numbering system to identify particular requirements as illustrated below:

B	Division
2	Part
2.7	Section
2.7.1.	Subsection
2.7.1.4.	Article
2.7.1.4.(3)	Sentence
2.7.1.4.(3)(b)	Clause
2.7.1.4.(3)(b)(ii)	Subclause

Requesting Changes to the Fire Code

To request a change to the Fire Code please visit: www.ontario.ca/firemarshal

TABLE OF CONTENTS**CHRONOLOGICAL HISTORY OF THE FIRE CODE****FIRE CODE****DIVISION A COMPLIANCE, OBJECTIVES AND FUNCTIONAL STATEMENTS**

PART 1	COMPLIANCE AND GENERAL
PART 2	OBJECTIVES
PART 3	FUNCTIONAL STATEMENTS

DIVISION B ACCEPTABLE SOLUTIONS

PART 1	GENERAL
PART 2	FIRE SAFETY
PART 3	OUTDOOR AND INDOOR STORAGE
PART 4	FLAMMABLE AND COMBUSTIBLE LIQUIDS
PART 5	HAZARDOUS MATERIALS, PROCESSES AND OPERATIONS
PART 6	FIRE PROTECTION EQUIPMENT
PART 7	CHECKING, INSPECTION, TESTING AND MAINTENANCE OF FIRE EMERGENCY SYSTEMS IN HIGH BUILDINGS
PART 8	DEMOLITION
PART 9	RETROFIT

DIVISION C ADMINISTRATIVE PROVISIONS

CHRONOLOGICAL HISTORY OF THE FIRE CODE

The first edition of the Ontario Fire Code was enacted in November 1981. The following table lists the various editions of the Fire Code (Establishing Regulations column) as well as interim amending regulations with relevant dates and brief descriptions.

Establishing Regulation	Amending Regulations	Date Filed	Effective Date	Nature of Regulation or Amendment
O. Reg. 730/81		November 2, 1981	November 21, 1981	First Edition of Fire Code
	O. Reg. 251/83	April 29, 1983	May 14, 1983	Introduce Retrofit Sections 9.1, 9.2, 9.3
	O. Reg. 425/84	June 29, 1984	July 14, 1984	Change in compliance date for Section 9.2
O. Reg. 67/87		February 11, 1987	February 28, 1987	New Fire Code including new Retrofit Section 9.4
	O. Reg. 281/90	June 4, 1990	June 23, 1990	New Subsection 3.5.3. Outdoor Tire Storage Yards
Regulation 454, R.R.O. 1990			November 16, 1992	New Fire Code with no significant changes (legislative consolidation)
	O. Reg. 627/92	October 9, 1992 November 16, 1992 (amended date)	October 24, 1992	New Retrofit Sections 9.5, 9.6
	O. Reg. 385/94	June 23, 1994	July 14, 1994; August 13, 1994 for Articles 9.8.4.2., 9.8.4.3.	New Retrofit Section 9.8
	O. Reg. 389/97	October 30, 1997	November 21, 1997	Revoking Regulation 454 and O. Reg. 627/92 and 385/94

(continued from previous page)

Establishing Regulation	Amending Regulations	Date Filed	Effective Date	Nature of Regulation or Amendment
O. Reg. 388/97		October 30, 1997	November 21, 1997	New Fire Code and introduction of Part 4, Flammable and Combustible Liquids
	O. Reg. 398/98	July 6, 1998	July 25, 1998	Section 2.13 and Subsection 6.3.3. (Smoke Alarms) come into effect
	O. Reg. 428/98	July 28, 1998	July 31, 1998	Hotels (Article 1.1.6.2.) added to Fire Code
	O. Reg. 302/99	May 4, 1999	May 4, 1999	Change references to Electricity Act, 1998
	O. Reg. 475/00	August 21, 2000	September 9, 2000	Part 4 amendments
	O. Reg. 315/01	August 10, 2001	September 4, 2001	Provide discretion in Section 5.6 – Compressed Gas Cylinders
	O. Reg. 451/05	July 29, 2005	July 29, 2005	Amendments for developmental services facilities
	O. Reg. 650/05	December 12, 2005	March 1, 2006	Smoke alarm on every storey of home
	O. Reg. 144/06	May 3, 2006	January 1, 2007	Amendments for hotels including new Retrofit Section 9.9
O. Reg. 213/07		May 25, 2007	November 21, 2007	New Fire Code in objective-based format and including technical changes
	O. Reg. 150/13	May 9, 2013	January 1, 2014	Amendments for vulnerable occupancies including new Retrofit Section 9.7
	O. Reg. 194/14	October 14, 2014	October 15, 2014	New requirements for carbon monoxide alarms and testing of smoke alarms
	O. Reg. 256/14	December 10, 2014	January 1, 2015	Technical and editorial amendments

(continued from previous page)

Establishing Regulation	Amending Regulations	Date Filed	Effective Date	Nature of Regulation or Amendment
O. Reg. 213/07	O. Reg. 275/14	December 16, 2014	January 1, 2015	Amendments for school day care facilities
	O. Reg. 108/18	March 19, 2018	July 1, 2018	New requirements for testing of standpipe fire department connections
	O. Reg. 33/19	March 14, 2019	July 1, 2019	New requirements for cannabis and other hazardous extraction operations
	O. Reg. 319/22	April 6, 2022	April 11, 2022	Long-Term Care Homes Act, 2007 change to Fixing Long-Term Care Act, 2021
	O. Reg. 87/25	June 4, 2025	January 1, 2026	Harmonization of select requirements with the National Fire Code of Canada 2020 and other changes specific to Ontario
	O. Reg. 303/25	December 10, 2025	January 1, 2026	Editorial amendments

DIVISION A
COMPLIANCE, OBJECTIVES AND FUNCTIONAL STATEMENTS

TABLE OF CONTENTS

PART 1	COMPLIANCE AND GENERAL
PART 2	OBJECTIVES
PART 3	FUNCTIONAL STATEMENTS

PART 1

COMPLIANCE AND GENERAL

TABLE OF CONTENTS

SECTION 1.1	ORGANIZATION OF THIS CODE
Subsection 1.1.1.	General
SECTION 1.2	COMPLIANCE
Subsection 1.2.1.	Compliance with this Code
Subsection 1.2.2.	Compliance with Division B
Subsection 1.2.3.	Compliance with Other Applicable Law
SECTION 1.3	EXEMPTIONS
Subsection 1.3.1.	Exemption for Farms
SECTION 1.4	TERMS AND ABBREVIATIONS
Subsection 1.4.1.	Definitions of Words and Phrases
Subsection 1.4.2.	Symbols and Other Abbreviations
SECTION 1.5	REFERENCED DOCUMENTS
Subsection 1.5.1.	Referenced Documents

SECTION 1.1 ORGANIZATION OF THIS CODE

Subsection 1.1.1. General

Scope of Division A

1.1.1.1. Division A contains the compliance and application provisions, **objectives** and **functional statements** of this Code.

Scope of Division B

1.1.1.2. Division B contains the **acceptable solutions** of this Code.

Scope of Division C

1.1.1.3. Division C contains the administrative provisions of this Code.

Internal cross-references

1.1.1.4. If a provision of this Code contains a reference to another provision of this Code but no Division is specified, both provisions are in the same Division of this Code.

SECTION 1.2 COMPLIANCE

Subsection 1.2.1. Compliance with this Code

Owner's responsibility

1.2.1.1. Unless otherwise specified, the **owner** is responsible for carrying out the provisions of this Code.

Compliance with Parts 2 and 3

1.2.1.2. Compliance with Parts 2 and 3 is required only as it relates to the use of **alternative solutions** as set out in Subsection 1.2.2.

Subsection 1.2.2. Compliance with Division B

1.2.2.1. (1) Compliance with Division B shall be achieved

- (a) by complying with the **acceptable solutions** in Division B, or
- (b) by using **alternative solutions** that
 - (i) will achieve the level of performance required by the applicable **acceptable solutions** in respect of the **objectives** and **functional statements** attributed to the applicable **acceptable solutions** in OFM Fire Code Supplement FCS-1, "Objectives and Functional Statements Attributed to Acceptable Solutions",
 - (ii) do not contravene any other provision in Division B, and
 - (iii) have been **approved** and implemented in conformance with Subsection 1.3.2. of Division C.

(2) For the purpose of Clause (1)(b), the level of performance in respect of a **functional statement** refers to the performance required by the **functional statement** as it relates to the **objective** with which it is associated in OFM Fire Code Supplement FCS-1, "Objectives and Functional Statements Attributed to Acceptable Solutions".

(3) The use of **alternative solutions** as described in Clause (1)(b) is not applicable in respect of any **acceptable solutions** to which **objectives** and **functional statements** have not been attributed in OFM Fire Code Supplement FCS-1, "Objectives and Functional Statements Attributed to Acceptable Solutions".

Subsection 1.2.3. Compliance with Other Applicable Law

Compliance with other applicable law

1.2.3.1. Compliance with this Code does not relieve the **owner** from compliance with other applicable Acts and regulations, and, where a requirement of an applicable Act or regulation conflicts with a requirement of this Code, the more stringent requirement prevails, unless the more stringent requirement is in this Code and this Code says that the requirement of the other Act or regulation prevails.

SECTION 1.3 EXEMPTIONS

Subsection 1.3.1. Exemption for Farms

Exemption

1.3.1.1. (1) Subject to Sentence (2) and Article 1.3.1.2., a **farm building** with an **occupant load** of not more than one person per 40 m² of floor area during normal use and other premises on a farm used for farming purposes are exempt from the requirements of this Code.

(2) Where a floor area or portion of a floor area within a farm building contains a hazardous extraction operation involving cannabis, the floor area or portion of the floor area shall comply with Articles 2.7.1.1. and 2.7.2.2., Section 2.8, Part 4, Article 5.1.4.2. and Subsection 5.14.11. of Division B.

Where compliance required

- 1.3.1.2. (1) A farm building shall comply with Part 2 and Part 6 of Division B if it is
- (a) more than 600 m² in building area or more than 3 storeys in building height, and
 - (b) constructed on or after January 1, 2025 to meet the requirements of the Building Code, as it read on or after that day, that apply to farm buildings.

SECTION 1.4 TERMS AND ABBREVIATIONS

Subsection 1.4.1. Definitions of Words and Phrases

Non-defined terms

1.4.1.1. (1) Definitions of words and phrases used in this Code that are not included in the list of definitions in Article 1.4.1.2. 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 with the various trades and professions to which the terminology applies.

(2) Despite Sentence (1), words and phrases may be assigned other meanings where specifically noted in another provision of this Code.

Defined terms

1.4.1.2. The words and terms used in this Code that are in bold face, and either in upper and lower case or in lower case, have the following meanings:

Acceptable solution means a requirement set out in Division B. (“solution acceptable”)

Access to exit means that part of a **means of egress** within a **floor area** that provides access to an **exit** serving the **floor area**. (“accès à l’issue”)

Agricultural occupancy means the **occupancy** of a **building** or part thereof that is located on land that is associated with and devoted to the practice of farming and is used for the purpose of producing crops, raising farm animals or preparing, marketing, storing or processing agricultural products. (“établissement agricole”)

Agricultural occupancy with no human occupants means an **agricultural occupancy** that is not intended to be occupied by persons under normal use and is generally used for the storage of agricultural materials and by-products. (“établissement agricole sans occupation humaine”)

Air-supported structure means a structure that consists of a pliable membrane that achieves and maintains its shape and support by internal air pressure. (“structure gonflable”)

Alarm signal means an audible signal transmitted throughout a zone or zones or throughout a **building** to advise occupants that a fire emergency exists. (“signal d’alarme”)

Alert signal means an audible signal to advise designated persons of a fire emergency. (“signal d’alerte”)

Alternative solution means a substitute for an **acceptable solution**. (“solution de rechange”)

Appliance means a device to convert fuel into energy, and includes all components, controls, wiring and piping required to be part of the device by the applicable standard referred to in this Code. (“appareil”)

Approved means approved by the **Chief Fire Official**. (“approuvé”)

Architect means a member or licensee of the Ontario Association of Architects under the **Architects Act**. (“architecte”)

Assembly occupancy means the **occupancy** or the use of a **building**, or part thereof, by a gathering of persons for civic, political, travel, religious, social, educational, recreational or like purposes or for the consumption of food or drink. (“établissement de reunion”)

Atmospheric storage tank means a **storage tank** that is designed to operate at pressures from atmospheric to 3.5 kPa (gauge). (“réservoir de stockage sous pression atmosphérique”)

Attic space means the space between the roof and the ceiling of the top **storey** or between a dwarf wall and a sloping roof. (“comble”)

Basement means a **storey** or **storeys** of a **building** located below the **first storey**. (“sous-sol”)

Boiler means an **appliance** intended to supply hot water or steam for **space heating**, processing or power purposes. (“chaudière”)

Breeching means a flue pipe or chamber for receiving flue gases from one or more **flue** connections and for discharging these gases through a single **flue** connection. (“collecteur de fumée”)

Building means any structure used or intended for supporting or sheltering any use or **occupancy**. (“bâtiment”)

Building area means the greatest horizontal area of a **building** above **grade** within the outside surface of exterior walls or within the outside surface of exterior walls and the centre line of **firewalls**. (“aire de bâtiment”)

Building Code means any version of the **Ontario Building Code** that was in force at any time since it was made under **The Building Code Act, 1974**, the **Building Code Act** of the Revised Statutes of Ontario, 1980, the **Building Code Act** of the Revised Statutes of Ontario, 1990, the **Building Code Act, 1992** or a successor to the **Building Code Act, 1992**, and, where a specific version of the **Building Code** is referred to, that version of the **Building Code**. (“code du bâtiment”)

Building height (in **storeys**) means the number of **storeys** contained between the roof and the floor of the **first storey**. (“hauteur de bâtiment”)

Business and personal services occupancy means the **occupancy** or use of a **building** or part thereof for the transaction of business or the rendering or receiving of professional or personal services. (“établissement d'affaires”)

Care and treatment occupancy means an **occupancy** in which persons receive special care and treatment. (“établissement de soins et de traitement”)

Care occupancy means an **occupancy** in which special care is provided by a facility, directly through its staff or indirectly through another provider, to residents of the facility

- (a) who require special care because of cognitive or physical limitations, and
- (b) who, as a result of those limitations, would be incapable of evacuating the **occupancy**, if necessary, without the assistance of another person. (“établissement de soins”)

Check means visual observation to ensure the device or system is in place and is not obviously damaged or obstructed. (“verification”)

Chief Fire Official means the assistant to the Fire Marshal who is the Municipal Fire Chief or a member or members of the **fire department** appointed by the Municipal Fire Chief under Article 1.1.1.2. of Division C or a person appointed by the Fire Marshal under Article 1.1.1.1. of Division C. (“chef de la sécurité-incendie”)

Chimney means a primarily vertical shaft enclosing at least 1 **flue** for conducting **flue** gases to the outdoors. (“cheminée”)

Class A fire means a fire involving combustible materials such as wood, cloth and paper. (“feu de classe A”)

Class B fire means a fire involving a **flammable** or **combustible liquid**, fat or grease. (“feu de classe B”)

Class C fire means a fire involving energized electrical equipment. (“feu de classe C”)

Class D fire means a fire involving a combustible metal. (“feu de classe D”)

Class K fire means a fire involving combustible cooking media such as vegetable oils, animal oils and animal fats. (“feu de classe K”)

Closed container means a container so sealed by means of a lid or other device that neither liquid nor vapour will escape from it at ordinary temperatures. (“récipient fermé”)

Closure means a device or assembly for closing an opening through a **fire separation**, an exterior wall or an opening onto a fire escape that is required to be protected, which

- (a) may include a door, a shutter, wired glass or glass block, and
- (b) includes all components, such as hardware, closing devices, frames and anchors. (“dispositif d'obturation”)

Combustible construction means that type of construction that does not meet the requirements for **noncombustible construction**. or encapsulated mass timber construction. (“construction combustible”)

Combustible dust means dust and particles that are ignitable and liable to produce an explosion. (“poussière combustible”)

Combustible fibres means finely divided combustible vegetable or animal fibres and thin sheets or flakes of such materials that in a loose, unbaled condition present a flash fire hazard, and includes cotton, wool, hemp, sisal, jute, kapok, paper and cloth. (“fibres combustibles”)

Combustible liquid means any liquid having a **flash point** at or above 37.8°C and below 93.3°C. (“liquide combustible”)

Compressed gas means any contained mixture or material with either an absolute pressure exceeding 275.8 kPa at 21°C or an absolute pressure exceeding 717 kPa at 54°C, or both, or any liquid having an absolute **vapour pressure** exceeding 275.8 kPa at 37.8°C. (“gaz comprimé”)

Contained use area means a supervised area containing one or more rooms in which occupant movement is restricted to a single room by security measures not under the control of the occupant. (“zone de détention cellulaire”)

Dangerous goods means products, materials or substances that are

- (a) regulated by the **Transportation of Dangerous Goods Regulations**, SOR/2001-286, made under the **Transportation of Dangerous Goods Act (Canada)**, or
- (b) classified as hazardous products under the **Hazardous Products Regulations**, SOR/2015-17, made under the **Hazardous Products Act (Canada)**. (“marchandises dangereuses”)

Demolition means the doing of anything in the removal of a **building** or any material part thereof. (“demolition”)

Detention occupancy means an **occupancy** in which persons are under restraint or are incapable of self preservation because of security measures not under their control. (“établissement de detention”)

Dispenser sump means a liquid-tight container intended for installation under a dispensing unit for the collection of any internal leakage of **flammable liquid** or **combustible liquid** from the dispensing unit. (“puisard de distributeur”)

Distilled beverage alcohol means a beverage that is produced by fermentation and contains more than 20 per cent by volume of water-miscible alcohol. (“boisson alcoolique distillée”)

Distillery means a **process plant** where **distilled beverage alcohols** are produced, concentrated or otherwise processed, and includes facilities on the same site where the concentrated products may be blended, mixed, stored or packaged. (“distillerie”)

Dwelling unit means a **suite** operated as a housekeeping unit, used or intended to be used by one or more persons and usually containing cooking, eating, living, sleeping and sanitary facilities, and includes a **residential unit**. (“logement”)

Encapsulated mass timber construction means that type of construction in which a degree of fire safety is attained by the use of encapsulated mass timber elements with an encapsulation rating and minimum dimensions for structural members and other building assemblies. (“construction en bois d’œuvre massif capsule”)

Encapsulation rating means the time in minutes that a material or assembly of materials will delay the ignition and combustion of encapsulated mass timber elements when it is exposed to fire under specified conditions of test and performance criteria. (“degré d’encapsulation”)

Exit means that part of a **means of egress**, including doorways, that leads from the **floor area** it serves to a separate **building**, an open public thoroughfare or an exterior open space protected from fire exposure from the **building** and having access to an open public thoroughfare. (“issue”)

Facility, for the purposes of Division A, means a property upon which a use regulated by this Code, including open air public assembly activities, open air industrial processing and outdoor storage, occurs, whether or not a **building** is located on the property. (“installation”)

Farm building means a **building** or part thereof that contains an **agricultural occupancy**. (“bâtiment agricole”)

Fire compartment means an enclosed space in a **building** that is separated from all other parts of the **building** by enclosing construction that provides a **fire separation** having a required **fire-resistance rating**. (“compartment résistant au feu”)

Fire damper means a **closure** that consists of a damper installed in an air distribution system or in a wall or floor assembly that is normally held in the open position and that is designed to close automatically in the event of a fire in order to maintain the integrity of the **fire separation**. (“registre coupe-feu”)

FIRE CODE

Fire department means a group of firefighters authorized to provide fire protection services by a municipality, group of municipalities or by an agreement made under section 3 of the **Fire Protection and Prevention Act, 1997**. (“service d’incendie”)

Fire detector means a device which detects a fire condition and automatically initiates an electrical signal to actuate an **alert signal** or **alarm signal** and includes **heat detectors** and **smoke detectors**. (“détecteur d’incendie”)

Fire-protection rating means the time in hours or fraction thereof that a **closure**, window assembly or glass block assembly will withstand the passage of flame when exposed to fire under specified conditions of test and performance criteria, or as otherwise prescribed in the **Building Code**. (“degré pare-flammes”)

Fire-resistance rating means the time in hours or fraction thereof that a material or assembly of materials will withstand the passage of flame and the transmission of heat when exposed to fire under specified conditions of test and performance criteria, or as determined by extension or interpretation of information derived therefrom as prescribed in the **Building Code**. (“degré de résistance au feu”)

Fire separation means a construction assembly that acts as a barrier against the spread of fire. (“séparation coupe-feu”)

Fire stop means a draft-tight barrier within or between construction assemblies that acts to retard the passage of smoke and flame. (“coupe-feu”)

Fire-stop flap means a device intended for use in horizontal assemblies that are required to have a **fire-resistance rating** and incorporate protective ceiling membranes and that operates to close off a duct opening through the membrane in the event of a fire. (“clapet coupe-feu”)

Firewall means a **fire separation** of **noncombustible construction** that subdivides a **building** or separates adjoining **buildings** to resist the spread of fire that has a **fire-resistance rating** as prescribed in the **Building Code** and that has structural stability to remain intact under fire conditions for the required fire-rated time. (“mur coupe-feu”)

First storey means the **storey** with its floor closest to **grade** and having its ceiling more than 1.8 m above **grade**. (“premier étage”)

Flame-spread rating means an index or classification indicating the extent of spread of flame on the surface of a material or an assembly of materials as determined in a standard fire test as prescribed in the **Building Code**. (“indice de propagation de la flamme”)

Flammable liquid means a liquid having a **flash point** below 37.8°C and having a **vapour pressure** not more than 275.8 kPa (absolute) at 37.8°C as determined by ASTM D 323, “Vapor Pressure of Petroleum Products (Reid Method)”. (“liquide inflammable”)

Flash point means the minimum temperature at which a liquid within a container gives off vapour in sufficient concentration to form an ignitable mixture with air near the surface of the liquid. (“point d’éclair”)

Floor area means the space on any **storey** of a **building** between exterior walls and required **firewalls**, including the space occupied by interior walls and **partitions**, but not including **exits**, **vertical service spaces** and their enclosing assemblies. (“aire de plancher”)

Flue means an enclosed passageway for conveying exhaust gases. (“conduit de fumée”)

Flue collar means the portion of a fuel-fired appliance designed for the attachment of the **flue pipe** or **breeching**. (“buse”)

Flue pipe means the pipe connecting the **flue collar** of an **appliance** to a **chimney**. (“tuyau de raccordement”)

Fuel-dispensing station means any premises or part of premises at which **flammable liquids** or **combustible liquids** are dispensed from fixed equipment into the fuel tank of a motor vehicle, watercraft or floatplane. (“poste de distribution de carburant”)

Functional statement means a function set out in Part 3. (“énoncé fonctionnel”)

Furnace means a **space-heating appliance** that uses warm air as the heating medium and that usually has provision for the attachment of ducts. (“générateur d’air chaud”)

Grade means the average level of finished ground adjoining a **building** at all exterior walls. (“niveau moyen du sol”)

Guest suite means a single room or a series of rooms of complementary use providing sleeping accommodation for the travelling public or for recreational purposes in a **hotel establishment**. (“suite pour invites”)

Hazardous extraction means a process to remove or separate a substance from a solution or mixture that involves the use of **flammable liquids**, **combustible liquids** or flammable gases as solvents in the process. (“extraction dangereuse”)

Heat detector means a **fire detector** designed to operate at a predetermined temperature or rate of temperature rise. (“détecteur de chaleur”)

Heavy timber construction means that type of **combustible construction** in which a degree of fire safety is attained by placing limitations on the sizes of wood structural members and on thickness and composition of wood floors and roofs, by avoidance of concealed spaces under floors and roofs and by use of **approved** fastenings, construction details and adhesives for structural members. (“construction en gros bois d’œuvre”)

High-hazard agricultural occupancy means an **agricultural occupancy** containing sufficient quantities of highly combustible and flammable or explosive materials which, because of their inherent characteristics, constitute a special fire hazard. (“établissement agricole à risques très élevés”)

High-hazard industrial occupancy means an **industrial occupancy** that contains sufficient quantities of highly combustible and flammable or explosive materials that, because of their inherent characteristics, constitute a special fire hazard. (“établissement industriel à risques très élevés”)

Hotel means **floor areas**, a **floor area** or part of a **floor area** containing four or more **suites** that provide sleeping accommodation for the travelling public or for recreational purposes. (“hôtel”)

Hotel establishment means a **building** containing a **hotel** and all subsidiary **occupancies** that are operated in connection with the **hotel** and includes all connected or adjacent **buildings** that are operated in connection with the **hotel**. (“établissement hôtelier”)

Impeded egress zone means a supervised area in which occupants have free movement but require the release, by security personnel, of security doors at the boundary before they are able to leave the area, but does not include a **contained use area**. (“zone à sortie contrôlée”)

Individual storage area means the area occupied by piles, bin boxes, **racks** or shelves, including subsidiary aisles providing access to the stored products, which is separated from the adjacent storage by aisles. (“îlot de stockage”)

Industrial occupancy means the **occupancy** or use of a **building** or part thereof for assembling, fabricating, manufacturing, processing, repairing or storing of goods and materials. (“établissement industriel”)

Inspection means physical examination to determine that the device or system will apparently perform in accordance with its intended function. (“inspection”)

Interconnected floor space means superimposed **floor areas** or parts of **floor areas** in which floor assemblies that are required to be **fire separations** are penetrated by openings that are not provided with **closures**. (“aire communicante”)

Listed means equipment or materials included in a list published by a certification organization accredited by the Standards Council of Canada. (“répertoire”)

Low-hazard industrial occupancy means an **industrial occupancy** in which the combustible content is not more than 50 kg/m² or 1200 MJ/m² of **floor area**. (“établissement industriel à risques faibles”)

Low pressure storage tank means a **storage tank** designed to operate at pressures greater than 3.5 kPa (gauge) to 100 kPa (gauge). (“réservoir de stockage sous basse pression”)

Lower explosive limit means the minimum concentration of vapour in air at which the propagation of flame occurs on contact with a source of ignition. (“limite inférieure d’explosivité”)

Major occupancy means the principal **occupancy** for which a **building** or part thereof is used or intended to be used, and includes the subsidiary **occupancies** that are an integral part of the principal **occupancy**. (“usage principal”)

Marine fuel-dispensing station means a **fuel-dispensing station** at which **flammable liquids** or **combustible liquids** are dispensed into the fuel tank of a watercraft or floatplane. (“poste marin de distribution de carburant”)

Means of egress means a continuous path of travel provided for the escape of persons from any point in a **building** or contained open space to a separate **building**, an open public thoroughfare or an exterior open space protected from fire exposure from the **building** and having access to an open public thoroughfare.

Means of egress includes both **exits** and **access to exits**. (“moyen d’évacuation”)

Medium-hazard industrial occupancy means an **industrial occupancy** in which the combustible content is more than 50 kg/m² or 1200 MJ/m² of **floor area** and not classified as **high-hazard industrial occupancy**. (“établissement industriel à risques moyens”)

Mercantile occupancy means the **occupancy** or use of a **building** or part thereof for the displaying or selling of retail goods, wares or merchandise. (“établissement commercial”)

Minimum explosible concentration (MEC) means the minimum concentration of **combustible dust** suspended in air, measured in mass per unit volume, that will support a deflagration as defined by the test procedure in ASTM E 1515, “Standard Test Method for Minimum Explosible Concentration of Combustible Dusts”. (“concentration explosive minimale”)

Noncombustible construction means that type of construction in which a degree of fire safety is attained by the use of noncombustible materials for structural members and other **building** assemblies. (“construction incombustible”)

Objective means an objective set out in Part 2. (“objectif”)

Occupancy means the use or intended use of a **building** or part thereof for the shelter or support of persons, animals or property. (“usage”)

Occupant load means the number of persons for which a **building** or part thereof is designed. (“nombre d’occupants”)

Order means an order made under subsection 21(1) of the **Fire Protection and Prevention Act, 1997**. (“ordre”)

Owner means any person, firm or corporation having control over any portion of the **building** or property under consideration and includes the persons in the **building** or property. (“propriétaire”)

Partition means an interior wall, one **storey** or part of a **storey** in height, that is not load-bearing. (“cloison”)

Plenum means a chamber forming part of an air duct system. (“plenum”)

Pressure vessel means a **storage tank** that is designed to operate at pressures greater than 100 kPa (gauge). (“récipient sous pression”)

- Process plant** means an **industrial occupancy** where materials, including **flammable liquids**, **combustible liquids** or Class 2 gases, are produced or used in a process. (“usine de transformation”)
- Professional Engineer** means a person who holds a licence or a temporary licence under the **Professional Engineers Act**. (“ingénieur”)
- Public amusement area** means an area where the public is ordinarily invited or permitted access, either expressly or by implication, whether or not a fee is charged for entry, and includes entertainment displays or structures used on a temporary, seasonal or permanent basis. (“aire de divertissement public”)
- Public corridor** means a corridor that provides **access to exit** from more than one **suite**. (“corridor commun”)
- Rack** means any combination of vertical, horizontal or diagonal members that support stored materials on solid or open shelves, including both fixed and portable units. (“rayonnage”)
- Rapid transit station** means a **building** or part thereof used for the purpose of loading and unloading passengers of a rapid transit system but does not include open-air shelters at street level. (“station de transport rapide”)
- Refinery** means any **process plant** in which **flammable** or **combustible liquids** are produced from crude petroleum, including areas on the same site where the resulting products are blended, packaged or stored on a commercial scale. (“raffinerie”)
- Refuse storage room** means a room in a **building** that is used for the storage of combustible refuse, including waste materials and recyclables. (“salle de stockage des déchets”)
- Residential occupancy** means an **occupancy** in which sleeping accommodation is provided to residents who are not harboured for the purpose of receiving special care or treatment and are not involuntarily detained. (“habitation”)
- Residential unit** means a **suite** operated as a housekeeping unit, used or intended to be used by one or more persons that contains cooking, eating, living, sleeping and sanitary facilities. (“unité d’habitation”)
- Retirement home** means a retirement home regulated under the **Retirement Homes Act, 2010**. (“maison de retraite”)
- Retrofit** means the minimum performance requirements for life safety for existing **buildings**. (“réaménagement”)
- Self-service outlet** means a **fuel-dispensing station**, other than a marine **fuel-dispensing station**, where the public handles the dispenser. (“poste de distribution libre-service”)
- Self-service storage building** means a **building** that is used to provide individual storage spaces to the public and that is open to the public only for those purposes. (“bâtiment de stockage libre-service”)
- Service room** means a room in a **building** used to contain equipment associated with **building** services. (“local technique”)
- Service space** means space in a **building** used to facilitate or conceal the installation of **building** service facilities such as chutes, ducts, pipes, shafts or wires. (“vide technique”)
- Smoke alarm** means a combined **smoke detector** and audible alarm device that is designed to sound an alarm within the room or **suite** in which it is located when there is smoke within the room or **suite**. (“avertisseur de fumée”)
- Smoke detector** means a **fire detector** designed to operate when the concentration of airborne combustion products exceeds a predetermined level. (“détecteur de fumée”)
- Space heater** means a **space-heating appliance** that heats the room or space within which it is located without the use of ducts. (“poêle”)

Space-heating appliance means an **appliance** that supplies heat to a room or space directly or indirectly or to rooms or spaces of a **building** through a heating system. (“générateur de chaleur”)

Spill containment sump means a liquid-tight container intended to catch, retain and provide for the evacuation of any product at the time of filling. (“puisard de confinement des déversements”)

Spraying area means the area that is within 6 m of a **spray booth** or spraying operation and that is not separated therefrom by a vapour-tight separation. (“aire de pulvérisation”)

Spray booth means a power-ventilated structure that encloses or accommodates a spraying operation so that spray vapour and residue can be controlled and exhausted. (“cabine de pulvérisation”)

Spray room means a **spraying area** on a **floor area** or part thereof in which an open spraying operation is confined and that is separated from the remainder of the **building** in which it is located by a noncombustible vapour-tight separation. (“atelier de pulvérisation”)

Sprinklered (as applying to a **building** or part thereof) means that the **building** or part thereof is equipped with a system of automatic sprinklers. (“protégé par gicleurs”)

Storage garage means a building or part of a building that is intended for the storage or parking of motor vehicles and that contains no provision for the repair or servicing of motor vehicles. (“garage de stationnement”)

Storage tank means a vessel for **flammable liquids** or **combustible liquids** having a capacity of more than 230 L and designed to be installed in a fixed location. (“réservoir de stockage”)

Storey means that portion of a **building** that is situated between the top of any floor and the top of the floor next above it, and where there is no floor above it, that portion between the top of the floor and the ceiling above it. (“étage”)

Street means any highway, road, boulevard, square or other improved thoroughfare 9 m or more in width that has been dedicated or deeded for public use and is accessible to **fire department** vehicles and equipment. (“rue”)

Suite means a single room or series of rooms of complementary use, operated under a single tenancy, and includes **dwelling units**, individual guest rooms in motels, **hotels**, boarding houses, rooming houses and dormitories, as well as individual stores and individual or complementary rooms for **business and personal services occupancies**. (“suite”)

Supervisory staff means those occupants of a **building** who have some delegated responsibility for the fire safety of other occupants under the fire safety plan. (“personnel de surveillance”)

Tank vehicle means any vehicle, other than railroad tank cars and boats, with a cargo tank having a capacity of more than 450 L mounted or built as an integral part of the vehicle, used for the transportation of **flammable** or **combustible liquids**, and includes tank trucks, trailers and semi-trailers. (“véhicule-citerne”)

Tent means a shelter or structure with a covering that is made of pliable material. (“tente”)

Test means the operation of a device or system to ensure that it will perform in accordance with its intended operation or function. (“essai”)

Total area means the total area of all floors above and below **grade**, including mezzanines and penthouses, measured between the inside surfaces of exterior walls or between the inside surfaces of exterior walls and the inside surfaces of **firewalls**. (“superficie totale”)

Transition sump means an underground liquid-tight container intended for installation where mechanical connection or transition takes place for the collection of any internal leakage of **flammable liquid** or **combustible liquid**. (“puisard de transition”)

Travel distance means the distance from any point in a **floor area** to an exit measured along the path of **exit** travel, except that when **floor areas** are subdivided into rooms used singly or into **suites** of rooms and served by **public corridors** or exterior passageways, the distance is measured from the door of the rooms or **suites** to the nearest **exit**. (“distance à franchir”)

Turbine sump means a container designed to provide access to equipment and to contain minor leakage, and installed to prevent water ingress. (“puisard de turbine”)

Unstable liquid means a liquid, including a **flammable liquid** or **combustible liquid**, which is chemically reactive to the extent that it will vigorously react or decompose at or near normal temperature and pressure conditions or which is chemically unstable when subject to impact. (“liquide instable”)

Vapour pressure means the pressure exerted by a liquid as determined by ASTM D 323, “Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method)”. (“pression de vapeur”)

Vertical service space means a shaft oriented essentially vertically that is provided in a **building** to facilitate the installation of **building** services, including mechanical, electrical and plumbing installations and facilities such as elevators, refuse chutes and linen chutes. (“vide technique vertical”)

Viscosity means the resistance that a liquid offers to flow. (“viscosité”)

Subsection 1.4.2. Symbols and Other Abbreviations

1.4.2.1. The symbols and abbreviations in this Code have the following meanings:

cm	centimetre(s)
cm/s	centimetre(s) per second
cm ²	square centimetre(s)
°C	degree(s) Celsius
h	hour(s)
kg	kilogram(s)
kN	kilonewton(s)
kPa	kilopascal(s)
L	litre(s)
L/h	litre(s) per hour
L/min	litre(s) per minute
L/min/m ²	litre(s) per minute per square metre
lx	lux
m	metre(s)
m ²	square metre(s)
m ³	cubic metre(s)
m/s	metre(s) per second
m/min	metre(s) per minute
m ³ /h	cubic metre(s) per hour
m ³ /min	cubic metre(s) per minute
min	minute(s)
MJ	megajoule(s)
mL	millilitre(s)
mm	millimetre(s)
mm ² /s	square millimetre(s) per second
N	newton(s)
ppm	part(s) per million

s	second(s)
t	tonne(s)
%	per cent

SECTION 1.5 REFERENCED DOCUMENTS

Subsection 1.5.1. Referenced Documents

Application of referenced documents

1.5.1.1. The provisions of documents referenced in this Code apply only to the extent that they are related to fire safety matters or to the risk created by the presence of unsafe levels of carbon monoxide.

Conflicting requirements

1.5.1.2. In the case of a conflict between the provisions of this Code and those of a referenced document, the provisions of this Code prevail.

Secondary references

1.5.1.3. If a document in this Code refers to another document, only those portions of the second document that are specific to the subject matter are applicable.

PART 2 OBJECTIVES

TABLE OF CONTENTS

SECTION 2.1 APPLICATION

Subsection 2.1.1. Application

SECTION 2.2 OBJECTIVES

Subsection 2.2.1. Objectives

SECTION 2.1 APPLICATION

Subsection 2.1.1. Application

2.1.1.1. (1) The **objectives** set out in Table 2.2.1.1. apply only to the extent that they relate to an **alternative solution** as provided in Article 1.2.2.1.

(2) The **objectives** described in this Part apply only as they relate to fire safety or to the risk created by the presence of unsafe levels of carbon monoxide.

SECTION 2.2 OBJECTIVES

Subsection 2.2.1. Objectives

2.2.1.1. The **objectives** of this Code are those listed in Table 2.2.1.1.

TABLE 2.2.1.1.

Objectives
Forming Part of Article 2.2.1.1.

Column 1 Category	Column 2 Objective number	Column 3 Objective
SAFETY	OS	An objective of this Code is to limit the probability that, as a result of specific circumstances related to the building or facility , a person in or adjacent to the building or facility will be exposed to an unacceptable risk of injury.
Fire Safety	OS1	An objective of this Code is to limit the probability that, as a result of (a) activities related to the construction, use or demolition of the building or facility, (b) the condition of specific elements of the building or facility, (c) the design and construction of specific elements of the facility related to certain hazards, or (d) inadequate built-in protection measures for the current or intended use of the building, a person in or adjacent to the building or facility will be exposed to an unacceptable risk of injury due to fire. The risks of injury due to fire addressed in this Code are those caused by:
	OS1.1	fire or explosion occurring
	OS1.2	fire or explosion impacting areas beyond its point of origin
	OS1.3	collapse of physical elements due to a fire or explosion
	OS1.4	fire safety systems failing to function as expected
	OS1.5	persons being delayed in or impeded from moving to a safe place during a fire emergency

TABLE 2.2.1.1.
(continued)

Column 1 Category	Column 2 Objective number	Column 3 Objective
Safety in Use	OS3	An objective of this Code is to limit the probability that, as a result of (a) activities related to the construction, use or demolition of the building or facility , (b) of specific elements of the building or facility , (c) the design and construction of specific elements of the facility related to certain hazards, or (d) inadequate built-in protection measures for the current or intended use of the building , a person in or adjacent to the building or facility will be exposed to an unacceptable risk of injury due to hazards. The risks of injury due to hazards addressed in this Code are those caused by:
	OS3.1	tripping, slipping, falling, contact, drowning or collision
	OS3.2	contact with hot surfaces or substances
	OS3.3	contact with energized equipment
	OS3.4	exposure to hazardous substances
	OS3.7	persons being delayed in or impeded from moving to a safe place during an emergency
HEALTH	OH	An objective of this Code is to limit the probability that, as a result of specific circumstances related to the building or facility , a person will be exposed to an unacceptable risk of illness.
Indoor Conditions	OH1	An objective of this Code is to limit the probability that, as a result of an installation required by this Code, a person in the building or facility will be exposed to an unacceptable risk of illness due to indoor conditions. The risks of illness due to indoor conditions addressed in this Code are those caused by:
	OH1.1	inadequate indoor air quality
Hazardous Substances Containment	OH5	An objective of this Code is to limit the probability that, as a result of (a) activities related to the construction, use or demolition of the building or facility , (b) the condition of specific elements of the building or facility , (c) the design and construction of specific elements of the facility related to certain hazards, or (d) inadequate built-in protection measures for the current or intended use of the building , the public will be exposed to an unacceptable risk of illness due to the release of hazardous substances from the building or facility .
FIRE PROTECTION OF BUILDINGS AND FACILITIES	OP	An objective of this Code is to limit the probability that, as a result of specific circumstances related to the building or facility , the building or facility will be exposed to an unacceptable risk of damage due to fire.

TABLE 2.2.1.1.
(continued)

Column 1 Category	Column 2 Objective number	Column 3 Objective
Fire Protection of the Building or Facility	OP1	An objective of this Code is to limit the probability that, as a result of (a) activities related to the construction, use or demolition of the building or facility , (b) the condition of specific elements of the building or facility , (c) the design and construction of specific elements of the facility related to certain hazards, or (d) inadequate built-in protection measures for the current or intended use of the building , the building or facility will be exposed to an unacceptable risk of damage to due to fire.
	OP1.1	fire or explosion occurring
	OP1.2	fire or explosion impacting areas beyond its point of origin
	OP1.3	collapse of physical elements due to a fire or explosion
	OP1.4	fire safety systems failing to function as expected
Protection of Adjacent Buildings or Facilities from Fire	OP3	An objective of this Code is to limit the probability that, as a result of (a) activities related to the construction, use or demolition of the building or facility , (b) the condition of specific elements of the building or facility , (c) the design and construction of specific elements of the facility related to certain hazards, or (d) inadequate built-in protection measures for the current or intended use of the building , adjacent buildings or facilities will be exposed to an unacceptable risk of damage to due to fire. The risks of damage due to fire addressed in this Code are those caused by:
	OP3.1	fire or explosion impacting areas beyond the building or facility of origin

PART 3 FUNCTIONAL STATEMENTS

TABLE OF CONTENTS

SECTION 3.1	APPLICATION
Subsection 3.1.1.	Application
SECTION 3.2	FUNCTIONAL STATEMENTS
Subsection 3.2.1.	Functional Statements

SECTION 3.1 APPLICATION

Subsection 3.1.1. Application

3.1.1.1. The **functional statements** set out in Table 3.2.1.1. apply only to the extent that they relate to an **alternative solution** as provided in Article 1.2.2.1.

SECTION 3.2 FUNCTIONAL STATEMENTS

Subsection 3.2.1. Functional Statements

3.2.1.1. The **functional statements** of this Code are those set out in Table 3.2.1.1.

TABLE 3.2.1.1.

Functional Statements
Forming Part of Article 3.2.1.1.

Column 1 Function	Column 2 Functional Statement
F01	To minimize the risk of accidental ignition.
F02	To limit the severity and effects of a fire or explosion.
F03	To retard the effects of fire on areas beyond its point of origin.
F04	To retard failure or collapse due to the effects of fire.
F05	To retard the effects of fire on emergency egress facilities .
F06	To retard the effects of fire on facilities for notification, suppression and emergency response.
F10	To facilitate the timely movement of persons to a safe place in an emergency.
F11	To notify persons, in a timely manner, of the need to take action in an emergency.
F12	To facilitate emergency response.
F13	To notify emergency responders, in a timely manner, of the need to take action in an emergency.
F20	To support and withstand expected loads and forces.
F21	To limit or accommodate dimensional change.
F22	To limit movement under expected loads and forces.
F30	To minimize the risk of injury to persons as a result of tripping, slipping, falling, contact, drowning or collision.
F32	To minimize the risk of injury to persons as a result of contact with energized equipment.
F34	To resist or discourage unwanted access or entry.
F36	To minimize the risk that persons will be trapped in confined spaces.
F43	To minimize the risk of release of hazardous substances.
F44	To limit the spread of hazardous substances beyond their point of release.
F51	To maintain appropriate air and surface temperatures.
F80	To resist deterioration resulting from expected service conditions.
F81	To minimize the risk of malfunction, interference, damage, tampering, lack of use or misuse.
F82	To minimize the risk of inadequate performance due to improper maintenance or lack of maintenance.

**DIVISION B
ACCEPTABLE SOLUTIONS**

**PART 1
GENERAL**

TABLE OF CONTENTS

SECTION 1.1	GENERAL
Subsection 1.1.1.	General
Subsection 1.1.2.	Records of Tests and Inspections
SECTION 1.2	REFERENCED DOCUMENTS AND ORGANIZATIONS
Subsection 1.2.1.	Referenced Documents
Subsection 1.2.2.	Organizations

SECTION 1.1 GENERAL

Subsection 1.1.1. General

Notification

1.1.1.1. Where **tests**, repairs or alterations are made to fire protection installations, including sprinkler and standpipe systems, a procedure of notification shall be established, and the procedure shall include notifying the **fire department** and the **building** occupants where necessary for safety in the event of a fire emergency.

Check, inspect and test

1.1.1.2. (1) The **checking, inspection** and **testing** of fire safety devices shall be conducted in accordance with this Code.

(2) Where specific references to **checking, inspection** and **testing** of fire safety devices are not made in this Code, such devices shall be maintained to ensure they operate as per their design requirements.

(3) Any **appliance**, device or component of a device that does not operate or appear to operate as intended when **checked, inspected** or **tested** as required by this Code shall be repaired or replaced if the failure or malfunctioning of the **appliance**, device or component would adversely affect fire or life safety.

Subsection 1.1.2. Records of Tests and Inspections

Making of records

1.1.2.1. (1) If this Code requires **tests** and corrective measures or operational procedures to be carried out, records shall be made noting what was done and the date and time it was done.

(2) If this Code requires an **inspection** to be conducted in a supported group living residence or an intensive support residence regulated under the **Services and Supports to Promote the Social Inclusion of Persons with Developmental Disabilities Act, 2008**, a record shall be made noting what was **inspected** and the date and time of the **inspection**.

(3) The records described in Sentences (1) and (2) shall be retained at the **building** premises for examination by the **Chief Fire Official**.

(4) Electronic records that can be made readily available to the **Chief Fire Official** upon request, are deemed to comply with Sentence (3).

Retention of records

1.1.2.2. (1) Subject to Sentence (2), the original or a copy of any record required by this Code shall be retained at the **building** to which the record relates

- (a) for a period of at least two years after being prepared, and
- (b) so that at least the most recent and the immediately preceding record of a given **test** or **inspection** are retained.

(2) The initial verification or **test** reports for fire protection systems installed after November 21, 2007 shall be retained throughout the life of the systems, regardless of whether the systems are installed in accordance with this Code or the **Building Code**.

SECTION 1.2 REFERENCED DOCUMENTS AND ORGANIZATIONS

Subsection 1.2.1. Referenced Documents

Applicable editions

1.2.1.1. (1) A reference in this Code to a document set out in Table 1.2.1.A. is to the edition designated in the table.

(2) Any **appliance**, equipment, system, installation or construction that met the requirements of this Article on December 31, 2025, as it read at the time, and that continues to meet those requirements is deemed to comply with the requirements of the edition referred to in Sentence (1).

Effective date

1.2.1.2. Unless otherwise specified in this Code, the documents referenced in this Code shall include all amendments, revisions and supplements effective to January 1, 2026.

Previous editions

1.2.1.3. Despite Articles 1.2.1.1. and 1.2.1.2., the **Chief Fire Official** may permit compliance with an edition of a document previous to that referred to in this Code if the **Chief Fire Official** is satisfied that compliance with the edition referred to in this Code is impractical.

TABLE 1.2.1.A.
Forming Part of Article 1.2.1.1.

Issuing Agency	Document Number	Title of Document	Code Reference
API	SPEC 5L (2012)	Line Pipe	4.5.2.1.(4)
API	SPEC 12B (2008)	Specification for Bolted Tanks for Storage of Production Liquids	4.3.1.2.(1)
API	SPEC 12D (2008)	Specification for Field Welded Tanks for Storage of Production Liquids	4.3.1.2.(1)
API	SPEC 12F (2008)	Specification for Shop Welded Tanks for Storage of Production Liquids	4.3.1.2.(1)
API	STD 620 (2013)	Design and Construction of Large, Welded, Low-Pressure Storage Tanks	4.3.1.3.(1)
API	STD 650 (2013)	Welded Tanks for Oil Storage	4.3.1.2.(1)
API	STD 653 (2009)	Tank Inspection, Repair, Alteration, and Reconstruction	4.3.1.10.(2) Table 4.4.1.2.B.
API	STD 1104 (2013)	Welding of Pipelines and Related Facilities	4.5.5.2.(1) 4.5.10.7.(6)
API	STD 2000 (2009)	Venting Atmospheric and Low-Pressure Storage Tanks	4.3.1.2.(2) 4.3.4.1.(1)
API	RP 1604 (1996)	Closure of Underground Petroleum Storage Tanks	4.3.16.1.(1) 4.3.16.6.(1)
API	RP 2200 (2010)	Repairing Crude Oil, Liquefied Petroleum Gas, and Product Pipelines	4.5.10.7.(6)
API	RP 2201 (2003)	Safe Hot Tapping Practices in the Petroleum and Petrochemical Industries	4.5.10.7.(6)

TABLE 1.2.1.A.
(continued)

Issuing Agency	Document Number	Title of Document	Code Reference
ASME	B16.5-2017	Pipe Flanges and Flanged Fittings NPS ½ Through NPS 24 Metric/Inch Standard	4.5.5.3.(1)
ASME	B31.3-2016	Process Piping	4.5.2.1.(5)
ASME	BPVC-2017	Boiler and Pressure Vessel Code	4.3.1.3.(1) 4.5.9.5.(2) 4.5.9.6.(1)
ASTM	A53/A53M-18	Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless	4.5.2.1.(4)
ASTM	A193/A193M-17	Standard Specification for Alloy-Steel and Stainless Steel Bolting for High Temperature or High Pressure Service and Other Special Purpose Applications	4.5.5.4.
ASTM	D56-16a	Standard Test Method for Flash Point by Tag Closed Cup Tester	4.1.3.1.(1)
ASTM	D93-18	Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester	4.1.3.1.(2)
ASTM	D323-15a	Standard Test Method for Vapor Pressure of Petroleum Products (Reid Method)	1.4.1.2. of Division A (Vapour pressure)
ASTM	D3278-96	Standard Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus	4.1.3.1.(4)
ASTM	D3828-16a	Standard Test Methods for Flash Point by Small Scale Closed Cup Tester	4.1.3.1.(3)
ASTM	E1515-14R22	Standard Test Method for Minimum Explosible Concentration of Combustible Dusts	1.4.1.2. of Division A (Minimum explosible concentration)
CCBFC	NRCC-CONST-56437E 2020	National Fire Code of Canada 2020	7.3.1.2.
CCME	PN 1326 (2003)	Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products	4.3.16.1.(1) 4.3.16.6.(1)
CFA	1990	Using the Canadian Fuels Colour-Symbol System to Mark Equipment and Vehicles For Product Identification	4.3.1.7.(1) 4.5.4.1.(3) 4.5.7.6.(1)
CGA	P-1 (2008)	Standard for Safe Handling of Compressed Gases in Containers	5.6.1.1.(3)
CGSB	CAN2-4.2-M77	Textile Test Methods	2.3.2.1.(2)
CSA	6.19-01	Residential Carbon Monoxide Alarming Devices	2.16.2.1.(6) 6.3.4.7.(4)
CSA	B51 : 19	Boiler, Pressure Vessel and Pressure Piping Code	4.3.1.3.(2)
CSA	B108-18	Natural gas refuelling stations installation code	4.6.1.1.(2)

TABLE 1.2.1.A.
(continued)

Issuing Agency	Document Number	Title of Document	Code Reference
CSA	B139 Series:19	Installation code for oil-burning equipment	4.3.13.6.
CSA	B149.1-15	Natural Gas and Propane Installation Code	4.6.1.1.(2)
CSA	B149.2-15	Propane Storage and Handling Code	4.6.1.1.(2)
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.
CSA	B365-17	Installation Code for Solid-Fuel-Burning Appliances and Equipment	2.6.2.1. 2.6.2.2.
CSA	B376-M1980	Portable Containers for Gasoline and Other Petroleum Fuels	4.2.3.1.(1)
CSA	B620-14	Highway Tanks and TC Portable Tanks for the Transportation of Dangerous Goods	4.2.3.1.(1)
CSA	C22.2 No. 141-15	Emergency Lighting Equipment	9.9.5.5.(2)
CSA	C22.2 No.152-1984 (R2011)	Combustible Gas Detection Instruments	5.17.3.3.(1)
CSA	C282-15	Emergency Electrical Power Supply for Buildings	6.7.1.1.(1) 6.7.1.3. 9.9.5.5.(1) and (2)
CSA	CAN/CSA-W117.2:19	Safety in Welding, Cutting and Allied Processes	5.17.1.2.
CSA	Z32-15	Electrical Safety and Essential Electrical Systems in Health Care Facilities	6.7.1.1.(2)
CSA	Z245.1-14	Steel Pipe	4.5.2.1.(4)
CSA	Z305.12-06 (R2021)	Safe Storage, Handling, and Use of Portable Oxygen Systems in Residential Buildings and Health Care Facilities	2.15.1.2.
IMO	2012	International Maritime Dangerous Goods Code	3.3.4.8.
MMAH	Supplementary Standard SB-4, January 1, 2024	Measures for Fire Safety in High Buildings	7.3.1.3.(2)
NACE	SP0285-2011-SG	Corrosion Control of Underground Storage Tank Systems by Cathodic Protection	4.3.10.1.(1)
NACE	SP0169-2013	Control of External Corrosion on Underground or Submerged Metallic Piping Systems	4.5.3.1.(1)
NFPA	10-2013	Standard for Portable Fire Extinguishers	6.2.7.1.(1) and (2)
NFPA	11-2016	Standard for Low-, Medium-, and High-Expansion Foam	2.1.3.5.(3) 4.3.2.5.(2)
NFPA	12-2015	Standard on Carbon Dioxide Extinguishing Systems	2.1.3.5.(3)
NFPA	12A-2015	Standard on Halon 1301 Fire Extinguishing Systems	2.1.3.5.(3)

TABLE 1.2.1.A.
(continued)

Issuing Agency	Document Number	Title of Document	Code Reference
NFPA	12B-1990	Standard on Halon 1211 Fire Extinguishing Systems	2.1.3.5.(3)
NFPA	13-2019	Standard for the Installation of Sprinkler Systems	3.2.1.8.(1) 3.2.1.9. 3.2.2.2.(5) 3.2.2.10.(3) 3.2.3.6.(1) 3.2.4.3.(4) 3.2.5.5.(1) 3.2.7.5.(3) 3.2.7.9.(1) 3.2.7.20. 4.2.8.4.(2) 4.9.4.3.(4) 5.4.2.3. 5.4.5.1. 5.12.8.2.(1) 5.13.6.1. 6.5.1.1.(1) 9.2.5.2.(4) Table 9.2.5.A. 9.4.5.5.(2) 9.5.5.3.(2) 9.6.5.5.(2) 9.7.5.1.(1) and (4)
NFPA	13D-2016	Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes	6.5.1.1.(1) 9.7.5.1.(2) 9.8.5.1.
NFPA	13R-2019	Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height	6.5.1.1.(1) 9.4.5.5.(3) 9.5.5.3.(2) 9.7.5.1.(3)
NFPA	15-2017	Standard for Water Spray Fixed Systems for Fire Protection	2.1.3.5.(4) 4.3.2.5.(2)
NFPA	16-2019	Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems	2.1.3.5.(4)
NFPA	17-2017	Standard for Dry Chemical Extinguishing Systems	2.1.3.5.(3)
NFPA	17A-2017	Standard for Wet Chemical Extinguishing Systems	2.1.3.5.(3)
NFPA	18-2017	Standard on Wetting Agents	2.1.3.5.(5)
NFPA	20-2016	Standard for the Installation of Stationary Pumps for Fire Protection	9.4.5.5.(5) 9.7.5.1.(6)
NFPA	24-2013	Standard for the Installation of Private Fire Service Mains and their Appurtenances	4.9.4.3.(4)

TABLE 1.2.1.A.
(continued)

Issuing Agency	Document Number	Title of Document	Code Reference
NFPA	25-2017	Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems	6.4.1.6. 6.5.1.1.(2) 6.6.1.5.(1) to (3)
NFPA	30-2018	Flammable and Combustible Liquids Code	4.2.7.6.(1) 4.3.16.1.(1) 4.3.16.6.(1)
NFPA	30B-2019	Code for the Manufacture and Storage of Aerosol Products	3.2.5.2. 3.2.5.5.(1)
NFPA	32-2016	Standard for Drycleaning Plants	5.14.10.1.(1)
NFPA	33-2018	Standard for Spray Application Using Flammable or Combustible Materials	5.12.1.1.(2) 5.12.3.5. 5.12.8.2.(2) 5.14.4.1.(2) 5.14.6.1.(3)
NFPA	37 2018	Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines	4.3.13.2.
NFPA	40-2022	Standard for the Storage and Handling of Cellulose Nitrate Motion Picture Film	5.4.4.2.
NFPA	40E-1993	Code for the Storage of Pyroxylin Plastic	5.4.3.3.(1)
NFPA	51-2018	Standard for Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting and Allied Processes	5.17.2.1.
NFPA	55-2020	Compressed Gases and Cryogenic Fluids Code	5.6.1.1.(3) and (8)
NFPA	68-2013	Standard on Explosion Protection by Deflagration Venting	4.2.9.5. 4.3.14.3. 4.9.3.1. 4.9.4.2.(1) 5.3.1.6.(2) 5.6.2.4.(1) 5.18.3.3.(2) and (3)
NFPA	69 2014	Standard on Explosion Prevention Systems	4.3.2.5.(2) 4.9.4.2.(1) 5.3.1.7.(2)
NFPA	71-1989	Standard for the Installation, Maintenance, and Use of Signaling Systems for Central Station Service	6.3.1.2.(2)
NFPA	72-2019	National Fire Alarm and Signaling Code	6.3.1.2.(5)
NFPA	82-2014	Standard on Incinerators and Waste and Linen Handling Systems and Equipment	2.6.3.1.(2) 2.6.3.2.
NFPA	86-2019	Standard for Ovens and Furnaces	4.5.8.5.(2) 5.18.4.1.

TABLE 1.2.1.A.
(continued)

Issuing Agency	Document Number	Title of Document	Code Reference
NFPA	91-2015	Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids	4.1.7.2.(5) 5.1.4.2.(1) 5.5.4.3.(1)
NFPA	96-2014	Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations	2.6.1.12.(1) 2.6.1.13.
NFPA	291-2022	Recommended Practice for Fire Flow Testing and Marking of Hydrants	6.6.6.1.
NFPA	505-2018	Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operation	3.4.1.1.
NFPA	664-2017	Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities	5.3.2.1.(1)
NFPA	705-2018	Recommended Practice for a Field Flame Test for Textiles and Films	2.3.2.2. 2.9.2.1.
NFPA	1142-2022	Standard on Water Supplies for Suburban and Rural Fire Fighting	3.3.1.9.(4)
NFPA	2001-2022	Standard on Clean Agent Fire Extinguishing Systems	2.1.3.5.(3)
NRCAn	Edition 3, 2014	Special Effects Pyrotechnics Manual	5.1.1.3.
NRCAn	Second Edition, 2010	Display Fireworks Manual	5.1.1.3.
NRCC	User's Guide - NBC 1995	Fire Protection, Occupant Safety and Accessibility (Part 3)	7.3.1.2.
OFM	Fire Code Supplement FCS-1, February 2025	Objectives and Functional Statements Attributed to the Acceptable Solutions	1.2.2.1.(1), (2) and (3) of Division A 1.3.2.2.(1) and (2) of Division C
STI/SPFA	SP031-2008	Standard for Repair of Shop Fabricated Aboveground Tanks for Storage of Flammable and Combustible Liquids	4.3.1.10.(2)
TC	2001	Standards Respecting Pipeline Crossings Under Railways	4.5.6.5.(3)
UL	ANSI/UL 558-1998	Industrial Trucks, Internal Combustion Engine-Powered	3.4.2.1.(3)
UL	UL 2034-2008	Single and Multiple Station Carbon Monoxide Alarms	2.16.2.1.(6) 6.3.4.7.(4)
ULC	ANSI/CAN/UL/ULC 2258:2018	Standard for Aboveground Nonmetallic Tanks for Fuel Oil and Other Combustible Liquids	4.3.1.2.(1)
ULC	CAN/ULC-S109-14	Standard for Flame Tests of Flame-Resistant Fabrics and Films	2.3.2.1.(1)

TABLE 1.2.1.A.
(continued)

Issuing Agency	Document Number	Title of Document	Code Reference
ULC	ULC-S505-1974	Standard for Fusible Links for Fire Protection Service	9.5.3.7.(5)
ULC	CAN/ULC-S508-02	Standard for the Rating and Testing of Fire Extinguishers	6.2.2.1.
ULC	CAN/ULC-S524-2019	Standard for the Installation of Fire Alarm Systems	6.3.1.8. 9.9.4.12.(1)
ULC	CAN/ULC-S531-2019	Standard for Smoke Alarms	2.13.2.1.(3) 9.3.4.5.(3) 9.5.4.5.(3) 9.6.4.10.(3) 9.7.4.3.(4) 9.8.4.2.(3) 9.9.4.13.(2)
ULC	CAN/ULC-S536-2019	Standard for Inspection and Testing of Fire Alarm Systems	6.3.2.2.(1) to (3) 6.3.2.4.
ULC	CAN/ULC-S537-2019	Standard for Verification of Fire Alarm Systems	9.9.4.12.(2)
ULC	CAN/ULC-S540-13	Standard for Residential Fire and Life Safety Warning Systems: Installation, Inspection, Testing and Maintenance	2.13.2.1.(4)
ULC	CAN/ULC-S552-14	Standard for the Maintenance and Testing of Smoke-Alarms	6.3.2.6.(2)
ULC	CAN/ULC-S553-14	Standard for the Installation of Smoke-Alarms	9.3.4.5.(3) 9.5.4.5.(3) 9.6.4.10.(3) 9.7.4.3.(5) 9.8.4.2.(3) 9.9.4.13.(2)
ULC	CAN/ULC-S561-13	Standard for Installation and Services for Fire Signal Receiving Centres and Systems	6.3.1.2.(2) 9.7.4.1.(2) 9.7.4.2.(2)
ULC	CAN/ULC S601 14	Standard for Shop Fabricated Steel Aboveground Tanks for Flammable and Combustible Liquids	4.3.1.2.(1) 4.3.3.2.(1) 4.3.7.4.(2) 4.3.13.5.(1)
ULC	CAN/ULC S602 14	Standard for Steel Aboveground Tanks for Fuel Oil and Lubricating Oil	4.3.1.2.(1)
ULC	ULC S603 14	Standard for Steel Underground Tanks for Flammable and Combustible Liquids	4.3.1.2.(1) 4.4.3.2.(4)
ULC	CAN/ULC-S603.1-11	Standard for External Corrosion Protection Systems for Steel Underground Tanks for Flammable and Combustible Liquids	4.3.1.2.(1) 4.3.8.6.(1) 4.3.10.1.(1) 4.5.3.1.(1)
ULC	CAN/ULC-S612:2016	Standard for Hose and Hose Assemblies for Flammable and Combustible Liquids	4.6.5.1.(1)

TABLE 1.2.1.A.
(continued)

Issuing Agency	Document Number	Title of Document	Code Reference
ULC	ULC S615 14	Standard for Fibre Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids	4.3.1.2.(1) 4.3.8.6.(2) 4.4.3.2.(4)
ULC	CAN/ULC-S620:2016	Standard for Hose Nozzle Valves for Flammable and Combustible Liquids	4.5.7.1.(2) 4.6.5.2.(1)
ULC	CAN/ULC-S633-2017	Standard for Flexible Underground Hose Connectors for Flammable and Combustible Liquids	4.5.6.14.(2)
ULC	CAN/ULC-S642:2016	Standard for Compounds and Tapes for Threaded Pipe Joints	4.5.5.1.
ULC	CAN/ULC-S644:2016	Standard for Emergency Breakaway Fittings for Flammable and Combustible Liquids	4.6.5.2.(4)
ULC	CAN/ULC-S651:2016	Standard for Emergency Valves for Flammable and Combustible Liquids	4.5.7.1.(3) 4.6.6.3.(1)
ULC	CAN/ULC-S652-16	Standard for Tank Assemblies for the Collection, Storage and Removal of Used Oil	4.3.1.2.(1) 4.3.7.4.(2)
ULC	CAN/ULC-S653-16	Standard for Aboveground Steel Contained Tank Assemblies for Flammable and Combustible Liquids	4.3.1.2.(1) 4.3.7.4.(2)
ULC	CAN/ULC S655 15	Aboveground Protected Tank Assemblies for Flammable and Combustible Liquids	4.3.1.2.(1) 4.3.2.1.(7) 4.3.7.4.(2) 4.3.13.5.(2) 4.6.2.1.(3)
ULC	CAN/ULC-S661-10	Standard for Overfill Protection Devices for Flammable and Combustible Liquid Storage Tanks	4.3.1.8.(1) and (2)
ULC	CAN/ULC-S663-11	Standard for Spill Containment Devices for Flammable and Combustible Liquid Aboveground Storage Tanks	4.3.6.4.(4)
ULC	CAN/ULC-S664 2017	Standard for Containment Sumps, Sump Fittings, and Accessories for Flammable and Combustible Liquids	4.3.9.2.
ULC	CAN/ULC-S668-12	Standard for Liners Used for Secondary Containment of Aboveground Flammable and Combustible Liquid Tanks	4.3.7.2.(2)
ULC	CAN/ULC-S669-14	Standard for Internal Retrofit Systems for Underground Tanks for Flammable and Combustible Liquids	4.3.1.10.(3)
ULC	CAN/ULC-S675.1-14	Standard for Volumetric Leak Detection Devices for Underground and Aboveground Storage Tanks for Flammable and Combustible Liquids	4.4.2.1.(5)
ULC	CAN/ULC S676 15	Standard for Refurbishing of Storage Tanks for Flammable and Combustible Liquids	4.3.1.10.(1)

TABLE 1.2.1.A.
(continued)

Issuing Agency	Document Number	Title of Document	Code Reference
ULC	CAN/ULC S677 14	Standard for Fire Tested Aboveground Tank Assemblies for Flammable and Combustible Liquids	4.3.1.2.(1) 4.3.7.4.(2)
ULC	CAN/ULC S679:2017	Standard for Metallic and Nonmetallic Underground Piping for Flammable and Combustible Liquids	4.5.2.1.(3) 4.5.6.14.(2)
ULC	CAN/ULC-S1001-11	Standard for Integrated Systems Testing of Fire Protection and Life Safety Systems	6.10.1.1.(1), (2) and (4)
ULC	ULC/ORD-C30-1995	Safety Containers	4.1.5.8.(2) 4.2.3.1.(1) 4.2.6.4. 5.5.5.2.(2)
ULC	ULC/ORD-C107.12-1992	Line Leak Detection Devices for Flammable Liquid Piping	4.4.2.1.(11) 4.4.3.4.(2) 4.4.4.2.
ULC	ULC/ORD-C107.21-92	Under-Dispenser Sumps	4.6.3.2.
ULC	ULC/ORD-C410A-1994	Absorbents for Flammable and Combustible Liquids	4.1.6.3.(3)
ULC	ULC/ORD-C536-1998	Flexible Metallic Hose	4.5.6.14.(2)
ULC	ULC/ORD-C842-84	Guide for the Investigation of Valves for Flammable and Combustible Liquids	4.5.7.1.(1)
ULC	ULC/ORD-C1275-1984	Guide for the Investigation of Storage Cabinets for Flammable Liquid Containers	4.2.10.5.(1)

Subsection 1.2.2. Organizations

Abbreviations of proper names

1.2.2.1. The abbreviations in this Code for the names of organizations shall have the meanings assigned to them as follows:

ANSI	American National Standards Institute
API	American Petroleum Institute
ASME	American Society of Mechanical Engineers
ASTM	ASTM International
CAN	Standards Council of Canada designation identifying a national standard. The number or name following the CAN designation represents the agency under whose auspices the standard is issued. CAN1 designates CGA, CAN2 designates CGSB, CAN3 designates CSA, and CAN4 designates ULC.
CCBFC	Canadian Commission on Building and Fire Codes
CCME	Canadian Council of Ministers of the Environment
CFA	Canadian Fuels Association
CGA	Compressed Gas Association
CGSB	Canadian General Standards Board
CNSC	Canadian Nuclear Safety Commission
CPPI	Canadian Petroleum Products Institute
CSA	CSA Group
IMO	International Maritime Organization
MMAH	Ontario Ministry of Municipal Affairs and Housing
NACE	National Association of Corrosion Engineers
NFPA	National Fire Protection Association
NRCC	National Research Council of Canada
NRCan	Natural Resources Canada
OFM	Ontario Office of the Fire Marshal
STI/SPFA	Steel Tank Institute / Steel Plate Fabricators Association
TC	Transport Canada
UL	Underwriters Laboratories Inc.
ULC	ULC Standards

PART 2 FIRE SAFETY

TABLE OF CONTENTS

SECTION 2.1 GENERAL

- Subsection 2.1.1. Scope and Application
- Subsection 2.1.2. Classification of Buildings or Parts of Buildings by Major Occupancy
- Subsection 2.1.3. Fire Safety Installations

SECTION 2.2 FIRE SEPARATIONS

- Subsection 2.2.1. Major Occupancies
- Subsection 2.2.2. Rooms and Spaces
- Subsection 2.2.3. Closures
- Subsection 2.2.4. Encapsulation Materials

SECTION 2.3 INTERIOR FURNISHING, FURNISHING AND DECORATIVE MATERIALS

- Subsection 2.3.1. General
- Subsection 2.3.2. Textile Flammability

SECTION 2.4 FIRE HAZARDS

- Subsection 2.4.1. Combustible Materials
- Subsection 2.4.2. RESERVED
- Subsection 2.4.3. Smoking
- Subsection 2.4.4. Open Flames
- Subsection 2.4.5. Use of Hazardous Materials
- Subsection 2.4.6. Electrical Hazards
- Subsection 2.4.7. Vacant Buildings

SECTION 2.5 FIRE DEPARTMENT ACCESS TO BUILDINGS

- Subsection 2.5.1. General

SECTION 2.6 SERVICE EQUIPMENT

- Subsection 2.6.1. Heating, Ventilating and Air-Conditioning
- Subsection 2.6.2. Solid-Fuel-Burning Appliances
- Subsection 2.6.3. Incinerators
- Subsection 2.6.4. Electrical Equipment Vaults

SECTION 2.7 SAFETY TO LIFE

- Subsection 2.7.1. Means of Egress and Occupant Load
- Subsection 2.7.2. Door Hardware

- Subsection 2.7.3. Exit Lighting and Emergency Lighting
- Subsection 2.7.4. Indoor Public Amusement Areas

SECTION 2.8 EMERGENCY PLANNING

- Subsection 2.8.1. General
- Subsection 2.8.2. Fire Safety Plan
- Subsection 2.8.3. Fire Drills

SECTION 2.9 TENTS AND AIR-SUPPORTED STRUCTURES

- Subsection 2.9.1. General
- Subsection 2.9.2. Materials
- Subsection 2.9.3. Fire Hazards and Control

SECTION 2.10 DAY CARE CENTRES

- Subsection 2.10.1. Application
- Subsection 2.10.2. Combustible Materials
- Subsection 2.10.3. Staffing

SECTION 2.11 INSULATION AND RE-INSULATION

- Subsection 2.11.1. General

SECTION 2.12 COVERED MALLS

- Subsection 2.12.1. General

SECTION 2.13 INSTALLATION OF SMOKE ALARMS

- Subsection 2.13.1. Application and Responsibility
- Subsection 2.13.2. Installation Requirements

SECTION 2.14 OUTDOOR PUBLIC AMUSEMENT AREAS

- Subsection 2.14.1. General

SECTION 2.15 PORTABLE OXYGEN SYSTEMS

- Subsection 2.15.1. General

SECTION 2.16 INSTALLATION OF CARBON MONOXIDE ALARMS

- Subsection 2.16.1. Application and Responsibility
- Subsection 2.16.2. Installation Requirements

SECTION 2.17 FARM BUILDINGS

- Subsection 2.17.1. Fire Hazards and Control
- Subsection 2.17.2. Signage
- Subsection 2.17.3. Ambient Conditions

SECTION 2.1 GENERAL

Subsection 2.1.1. Scope and Application

Scope

2.1.1.1. This Part provides measures for the fire safety of persons and **buildings**, including the elimination or control of fire hazards in and around **buildings**, the maintenance of certain life safety systems in **buildings**, the establishment of a fire safety plan in certain **buildings** and the installation of **smoke alarms** and carbon monoxide alarms.

Application

2.1.1.2. Subject to Article 2.1.1.3., this Part applies to **buildings**, premises, **tents**, **air-supported structures** and outdoor **public amusement areas**.

Exceptions

2.1.1.3. (1) Except for this Section and subject to Sentences (2) and (3), this Part does not apply to individual **dwelling units**.

(2) Section 2.2 (Fire Separations), Article 2.4.4.4. (Open-air burning), Subsection 2.4.7. (Vacant Buildings), Section 2.6 (Service Equipment), Section 2.11 (Insulation and Re-Insulation), Section 2.13 (Installation of Smoke Alarms), Section 2.15 (Portable Oxygen Systems) and Section 2.16 (Installation of Carbon Monoxide Alarms) apply to individual **dwelling units**.

(3) This Part applies to individual **dwelling units** in a supported group living residence or an intensive support residence regulated under the **Services and Supports to Promote the Social Inclusion of Persons with Developmental Disabilities Act, 2008**.

(4) A **dwelling unit** in which any of the following types of child care are being provided shall be treated as an individual **dwelling unit** for purposes of this Part:

- (a) home child care that meets the criteria in paragraph 1 of subsection 6 (3) of the **Child Care and Early Years Act, 2014**,
- (b) unlicensed child care that meets the criteria in paragraph 2 of subsection 6 (3) of the **Child Care and Early Years Act, 2014**, or
- (c) in-home services that meet the criteria in paragraph 3 of subsection 6 (3) of the **Child Care and Early Years Act, 2014**.

Subsection 2.1.2. Classification of Buildings or Parts of Buildings by Major Occupancy

Classification of buildings or parts thereof

2.1.2.1. For the purpose of applying this Code, a **building** or part thereof shall be classified according to its **major occupancy** by the **Chief Fire Official** in conformance with the **Building Code**.

Hazardous activities

2.1.2.2. Activities that create a hazard and that are not allowed for in the original design shall not be carried out in a **building** unless **approved** provisions are made to control the hazard.

Prohibited combinations of occupancies

2.1.2.3. A **building** containing a **major occupancy** that is classified as an **assembly occupancy**, a **care occupancy**, a **care and treatment occupancy**, a **detention occupancy** or a **residential occupancy** shall not contain a **major occupancy** that is classified as a **high-hazard industrial occupancy**.

2.1.2.4. A **farm building** containing a **major occupancy** that is classified as an agricultural occupancy shall not contain an **assembly occupancy** intended for the production and viewing of the performing arts, an assembly occupancy of the arena type, a **care occupancy**, a **care and treatment occupancy** or a **detention occupancy**.

2.1.2.5. A **farm building** containing a **major occupancy** that is classified as a **high-hazard agricultural occupancy** or an **agricultural occupancy with no human occupants** shall not contain an **assembly occupancy** or a **residential occupancy**.

Subsection 2.1.3. Fire Safety Installations

2.1.3.1. RESERVED

2.1.3.2. RESERVED

2.1.3.3. RESERVED

2.1.3.4. RESERVED

Special fire suppression systems

2.1.3.5. (1) Where a special fire suppression system is installed after November 21, 2007 to comply with this Code or installed through application of good engineering practices, the 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 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, "Standard for Low , Medium , and High Expansion Foam",
- (b) NFPA 12, "Standard on Carbon Dioxide Extinguishing Systems",
- (c) NFPA 12A, "Standard on Halon 1301 Fire Extinguishing Systems",
- (d) NFPA 12B, "Standard on Halon 1211 Fire Extinguishing Systems",
- (e) NFPA 17, "Standard for Dry Chemical Extinguishing Systems",
- (f) NFPA 17A, "Standard for Wet Chemical Extinguishing Systems", or
- (g) NFPA 2001, "Standard on Clean Agent Fire 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, "Standard for Water Spray Fixed Systems for Fire Protection", or
- (b) NFPA 16, "Standard for the 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, "Standard on Wetting Agents".

(6) A hazard for which a fire suppression system has been designed shall not 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.

SECTION 2.2 FIRE SEPARATIONS

Subsection 2.2.1. Major Occupancies

Damaged fire separations

2.2.1.1. Where **fire separations** between **major occupancies** are damaged in a manner so as to affect the integrity of their **fire-resistance rating**, such damaged **fire separations** shall be repaired so that the integrity of the **fire separations** is maintained.

Subsection 2.2.2. Rooms and Spaces

Damaged fire separations

2.2.2.1. Where **fire separations** between rooms, corridors, shafts and other spaces are damaged so as to affect the integrity of their **fire-resistance rating**, the damaged **fire separations** shall be repaired so that the integrity of the **fire separations** is maintained.

Subsection 2.2.3. Closures

Damaged closures

2.2.3.1. Where **closures** are damaged so as to affect the integrity of their **fire-protection rating**, the damaged **closures** shall be repaired so that the integrity of the **closures** is maintained.

Maintenance of closures

- 2.2.3.2. (1) **Closures** shall be maintained to ensure that they are operable at all times by
- (a) keeping fusible links and heat or smoke-actuated devices undamaged and free of paint and dirt,
 - (b) keeping guides, bearings and stay rolls clean and lubricated,
 - (c) making necessary adjustments and repairs to door hardware and accessories to ensure proper closing and latching, and
 - (d) repairing or replacing inoperative parts of hold-open devices and automatic releasing devices.

Operation of closures

2.2.3.3. **Closures** shall not be obstructed, blocked, wedged open, or altered in any way that would prevent the intended operation of the **closure**.

Door in a fire separation

- 2.2.3.4. (1) A door in a **fire separation** shall be kept closed when not in use.
- (2) A door in a **fire separation** shall be **checked** as frequently as necessary to ensure that the door remains closed.
- (3) Sentences (1) and (2) do not apply to
- (a) a door designed to close automatically in the event of a fire emergency, or
 - (b) a door for which an **approved** fire safety plan contains provisions for closing in the event of a fire emergency.
- (4) A door in a **fire separation** shall be **inspected** monthly.

(5) A door opening in a **fire separation** and the areas surrounding the door opening shall be kept clear of anything that would be likely to obstruct or interfere with the free operation of the door.

Inspection of fire dampers and fire stop flaps

2.2.3.5. **Fire dampers** and **fire stop flaps** shall be **inspected** annually or on an **approved** time schedule.

Subsection 2.2.4. Encapsulation Materials

Damaged or removed encapsulation materials

2.2.4.1. Where encapsulation materials or an assembly of materials that provide protection for mass timber elements in **encapsulated mass timber construction** are damaged or removed so as to affect their integrity, the encapsulation materials or an assembly of materials that provide protection for mass timber elements shall be repaired or replaced in conformance with the **Building Code** so that the required **encapsulation rating** is restored.

SECTION 2.3 INTERIOR FINISHING, FURNISHING AND DECORATIVE MATERIALS

Subsection 2.3.1. General

2.3.1.1. (1) Where a **building** is refurbished or redecorated, interior finish materials used shall be in conformance with the **Building Code**.

(2) Despite Sentence (1), other interior finish materials may be **approved**.

Moveable partitions and screens

2.3.1.2. Moveable **partitions** or screens, including acoustical screens, shall have a **flame-spread rating** equal to that required for the interior finish of the area in which they are located as determined in the **Building Code**.

Subsection 2.3.2. Textile Flammability

Flame resistance of textiles

2.3.2.1. (1) Drapes, curtains, netting and other similar or decorative materials, including textiles and films used in **buildings**, shall meet the requirements of CAN/ULC-S109, “Standard for Flame Tests of Flame-Resistant Fabrics and Films”, when these materials are used in any

- (a) **care and treatment occupancy** and **detention occupancy**,
- (b) lobby or **exit**,
- (c) **access to exit** in **assembly occupancies**, and **assembly occupancies** with an **occupant load** of more than 100 persons, or
- (d) an open **floor area** exceeding 1500 m² in a **business and personal services occupancy**, **mercantile occupancy** or **industrial occupancy**, unless the **floor area** is divided into **fire compartments** each not exceeding 1500 m² in area and each having a **fire-resistance rating** not less than 1 h.

(2) Existing drapes, curtains, netting, and other similar or decorative materials, including textiles and films used in **buildings** which meet the requirements for a high degree of flame resistance as described in NOTE 4 of Test Method 27.1 of CAN2-4.2, “Textile Test Methods” are deemed to be in compliance with Sentence (1).

(3) For the purposes of Sentence (2),

“existing” means in place on November 21, 2007.

Flameproofing treatments

2.3.2.2. Flame retardant treatments shall be renewed as often as required to ensure that the material will pass the match flame **test** in NFPA 705, “Recommended Practice for a Field Flame Test for Textiles and Films”.

SECTION 2.4 FIRE HAZARDS

Subsection 2.4.1. Combustible Materials

Accumulation of combustible materials

2.4.1.1. (1) Combustible materials shall not be accumulated in or around a **building** in such quantity or such location as to create a fire hazard.

(2) Subject to Article 2.4.1.2., combustible materials shall not be accumulated in any part of an elevator shaft, ventilation shaft, **means of egress**, **service room** or **service space**, unless the location, room or space is designed for those materials.

(3) Horizontal concealed spaces, such as crawl spaces and ceiling spaces, shall not be used for the storage of combustible materials.

(4) Combustible materials shall not be stored on a roof or adjacent to any **building** so as to create a fire hazard to the **building** or its occupants.

(5) Abandoned optical fibre cables and electrical wires and cables, with combustible insulation, jackets or sheaths, and nonmetallic raceways shall be removed from a **plenum** unless

- (a) they are permanently enclosed by the structure or finish of the **building**,
- (b) their removal would disturb the structure or finish of the **building**,
- (c) their removal could affect the performance of cables in use, or
- (d) the **plenum** is **sprinklered**.

(6) Outdoor storage receptacles, such as dumpsters, used for combustible materials shall be located so that they do not create a fire hazard to **buildings**.

(7) Despite Sentence (2), beds and stretchers that do not create an obstruction to the egress route, may be temporarily located in corridors serving patient areas in

- (a) private hospitals regulated under the **Private Hospitals Act**, and
- (b) public hospitals regulated under the **Public Hospitals Act**.

Furniture in corridors or lobbies

2.4.1.2. (1) Corridors serving as **access to exits** for **guest suites** may contain solid wood or other **approved** furniture, provided the furniture does not create an obstruction to the egress route.

(2) For the purpose of Sentence (3), “furniture” means

- (a) seating,
- (b) tables, or
- (c) cabinets for displaying decorative objects.

(3) Corridors or lobbies serving as access to exits in residential occupancies, including retirement homes or care occupancies, may contain furniture, provided the furniture does not create an obstruction to the egress route and

- (a) the furniture is non-combustible,
- (b) the furniture is constructed of solid wood,

- (c) furniture is placed in groupings of no larger than 4.6 m², with each grouping separated from any other grouping by a minimum of 3 m and
 - (i) is in a corridor or lobby that is sprinklered, and
 - (ii) is in a corridor or lobby equipped with smoke detectors as part of the building fire alarm system or equipped with smoke alarms installed in accordance with Sentences 2.13.2.1.(2) and (3) in the vicinity of the furniture area if the building does not have a fire alarm system, or
 - (d) the furniture is approved.
- (4) Sentence (3) does not apply to corridors described in Sentence (1).

Waste receptacles

2.4.1.3. (1) Materials subject to spontaneous ignition, such as greasy or oily rags, shall be deposited in a receptacle conforming to Sentence (3) or be removed from the premises.

(2) Ashes shall be stored in receptacles that conform to Sentence (3) and combustible materials shall not be stored with ashes in the same receptacle.

- (3) A receptacle required in Sentences (1) and (2) shall
- (a) be constructed of noncombustible materials,
 - (b) have a close-fitting, self-closing metal cover,
 - (c) if the flooring material upon which it is placed is combustible, have a flanged bottom or legs not less than 50 mm high, and
 - (d) not be placed closer than 1 m to combustible materials, except as permitted in Clause (c).

Waste containers in hotels

2.4.1.4. (1) Waste containers in public washrooms and in other public areas in a **hotel establishment** shall be

- (a) **approved**, or
- (b) constructed of noncombustible material and have self-closing covers.

Lint traps for laundry equipment

2.4.1.5. Lint traps in laundry equipment shall be cleaned to prevent the accumulation of lint that creates an undue fire hazard.

Flammable or combustible liquid spills

2.4.1.6. **Flammable liquid** or **combustible liquid** spills in a **building** shall be removed immediately with an absorbent material that will not increase the hazard and shall be disposed of in a safe manner.

Subsection 2.4.2. RESERVED

Subsection 2.4.3. Smoking

Smoking prohibited

2.4.3.1. (1) If conditions are such that smoking would create a fire or explosion hazard, smoking shall not take place except in **approved** smoking areas.

(2) In supported group living residences and intensive support residences regulated under the **Services and Supports to Promote the Social Inclusion of Persons with Developmental Disabilities Act, 2008**, suitable noncombustible ashtrays shall be provided where smoking is permitted.

Signs

2.4.3.2. The areas where smoking is not permitted shall be identified by signs having black lettering 50 mm high with a 12.5 mm stroke on a yellow background, except that symbols of 150 mm by 150 mm may be used in lieu of lettering, or covered by instructions established under a fire safety plan and available to all persons.

Subsection 2.4.4. Open Flames*Open flames prohibited*

2.4.4.1. (1) In a **building** used for a public assembly, open flames shall not be used in such quantity or manner as to create a fire hazard unless the use has been **approved**.

(2) Open flames shall not be used in dining areas in **care occupancies, care and treatment occupancies and retirement homes**.

- (3) Despite Sentence (1), decorative and lighting devices with open flames shall not be used unless they are
- (a) securely supported in noncombustible holders and located and protected so that combustible materials will not come into contact with or be ignited by the flame, or
 - (b) **approved**.

2.4.4.2. (1) Flaming meals or drinks shall not be served in **care occupancies, care and treatment occupancies and retirement homes**.

(2) In **assembly occupancies**, flaming meals or drinks shall be ignited only at the location of serving.

(3) In **assembly occupancies**, the refuelling of equipment used to flame meals or drinks, or to warm food, shall be carried out

- (a) outside the serving area, and
- (b) away from ignition sources.

(4) A portable extinguisher with a minimum rating of 5B:C shall be located on the serving cart or table at locations referred to in Sentences (2) and (3).

Devices having open flames

2.4.4.3. Devices having open flames shall be securely supported in noncombustible holders and located or protected so as to prevent accidental contact of the flame with combustible materials.

Open-air burning

2.4.4.4. (1) Open-air burning shall not take place unless

- (a) it has been **approved**, or
- (b) the open-air burning consists of a small, confined fire that is
 - (i) used to cook food on a grill, barbecue or spit,
 - (ii) commensurate with the type and quantity of food being cooked, and
 - (iii) supervised at all times.

(2) Sentence (1) does not apply to the use of an **appliance** that

- (a) meets the requirements of the **Technical Standards and Safety Act, 2000**,
- (b) is for outdoor use,
- (c) if assembled, has been assembled in accordance with the manufacturer's instructions, and
- (d) if installed, has been installed in accordance with the manufacturer's instructions.

Subsection 2.4.5. Use of Hazardous Materials

2.4.5.1. **Flammable liquids** shall not be used for cleaning purposes except where the cleaning is an essential part of a process.

2.4.5.2. Flammable gases shall not be used to inflate balloons.

Subsection 2.4.6. Electrical Hazards

Electrical wiring

2.4.6.1. Temporary electrical wiring shall not be used where it presents a fire hazard.

Subsection 2.4.7. Vacant Buildings

2.4.7.1. Vacant **buildings** shall be secured against unauthorized entry.

SECTION 2.5 FIRE DEPARTMENT ACCESS TO BUILDINGS

Subsection 2.5.1. General

Application

- 2.5.1.1. (1) This Section applies to fire access routes
- (a) required to be constructed under the **Building Code**,
 - (b) required by municipal by-law, or
 - (c) required by this Code.

Maintaining access free of obstructions

2.5.1.2. (1) Fire access routes and access panels or windows provided to facilitate access for fire fighting operations shall not be obstructed by vehicles, gates, fences, **building** materials, vegetation, signs or any other form of obstruction.

(2) **Fire department** sprinkler and standpipe connections shall be clearly identified and maintained free of obstructions for use at all times.

Maintenance

2.5.1.3. Fire access routes shall be maintained so as to be immediately ready for use at all times by **fire department** vehicles.

Signs

2.5.1.4. **Approved** signs shall be displayed to indicate fire access routes.

SECTION 2.6 SERVICE EQUIPMENT

Subsection 2.6.1. Heating, Ventilating and Air-Conditioning

Application

2.6.1.1. This Subsection applies to cooking, heating, ventilating, air-conditioning equipment and their associated **appliances**.

Solid fuel bins

2.6.1.2. Bins containing solid fuel shall be located at least 1.2 m from any **appliance**.

Hoods, filters and ducts

2.6.1.3. (1) Hoods, ducts and filters subject to accumulations of combustible deposits shall be **checked** at intervals not greater than seven days, and shall be cleaned if the accumulation of combustible deposits creates a fire hazard.

(2) Sentence (1) does not apply to hoods, ducts or filters in an exhaust or ventilating system that serves only a single **suite** of **residential occupancy**.

Chimneys, flues and flue pipes

2.6.1.4. (1) Every **chimney**, **flue** and **flue pipe** shall be **inspected** to identify any dangerous condition

- (a) at intervals not greater than 12 months,
- (b) at the time of addition of any **appliance**, and
- (c) after any **chimney** fire.

(2) A **chimney**, **flue**, or **flue pipe** shall be replaced or repaired to eliminate

- (a) any structural deficiency or decay, and
- (b) all abandoned or unused openings which are not effectively sealed in a manner that would prevent the passage of fire or smoke.

(3) **Chimneys**, **flues** and **flue pipes** that constitute a fire hazard shall be repaired or replaced in accordance with the **Building Code**.

2.6.1.5. **Chimneys**, **flues** and **flue pipes** shall be cleaned as often as necessary to keep them free from accumulations of combustible deposits.

2.6.1.6. RESERVED

Operation of systems

2.6.1.7. Heating, ventilating and air-conditioning systems, including **appliances**, **chimneys** and **flue pipes**, shall be operated and maintained so as not to create a hazardous condition.

Disconnect switches

2.6.1.8. (1) Disconnect switches for mechanical air-conditioning and ventilating systems shall be **tested** at intervals not greater than 12 months to establish that the system can be shut down in an emergency.

(2) Sentence (1) does not apply to an exhaust or ventilating system that serves only a single **suite** of **residential occupancy**.

Ventilation shafts

2.6.1.9. Ventilation shafts shall be used only for ventilating purposes.

Precautions during repairs or renovations

2.6.1.10. (1) No work on ducts involving the use of hot work equipment shall be performed unless

- (a) the system has been shut down,
- (b) the duct has been cleaned of any accumulations of combustible deposits, and
- (c) any combustible lining and covering material that could be ignited by the work has been removed.

2.6.1.11. Precautions shall be taken, where necessary, to ensure that there is no damage to fuel supply piping or equipment that would result in fuel leakage or a fire hazard during renovations or excavations.

Exhaust and fire protection systems in cooking operations

2.6.1.12. (1) A cooking operation producing smoke or grease-laden vapours shall be provided with an exhaust system and fire protection system in accordance with NFPA 96, “Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations”.

(2) Despite Sentence (1), an existing exhaust or fire protection system may be **approved**.

(3) Sentence (1) does not apply to

- (a) an individual **suite** of **residential occupancy**, or
- (b) a cooking operation producing insignificant amounts of smoke or grease-laden vapours that are controlled by other **approved** measures.

(4) In a **hotel establishment** regulated by Section 9.9, a cooking operation that meets the requirements of Article 9.9.2.19. is deemed to be in compliance with Sentence (1).

Maintenance of exhaust and fire protection systems

2.6.1.13. Exhaust and fire protection systems required under Article 2.6.1.12. shall be maintained in accordance with NFPA 96, “Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations”.

2.6.1.14. (1) Instructions for manually operating the fire protection systems required under Article 2.6.1.12. shall be posted conspicuously in the kitchen.

(2) The instructions required in Sentence (1) shall be included in the fire safety plan where such a plan is required.

Subsection 2.6.2. Solid-Fuel-Burning Appliances

Solid-fuel-burning appliances

2.6.2.1. The installation of solid-fuel-burning **appliances** and equipment shall be in accordance with CSA-B365, “Installation Code for Solid-Fuel-Burning Appliances and Equipment”.

2.6.2.2. Solid-fuel-burning **appliances** and equipment shall be maintained in accordance with CSA-B365, “Installation Code for Solid-Fuel-Burning Appliances and Equipment”.

Subsection 2.6.3. Incinerators

Design, construction, installation and alteration

2.6.3.1. (1) The design, construction, installation and alteration of indoor incinerators shall conform to the requirements of the **Building Code**.

(2) The design, construction, installation, alteration and maintenance of outdoor incinerators shall conform to NFPA 82, “Standard on Incinerators and Waste and Linen Handling Systems and Equipment”, except that the **flue** venting an incinerator shall not serve as the chute conveying waste material to the incinerator.

Maintenance

2.6.3.2. All indoor and outdoor incinerators shall be maintained in accordance with NFPA 82, “Standard on Incinerators and Waste and Linen Handling Systems and Equipment”.

Spark arresters

2.6.3.3. (1) Spark arresters installed in conformance with Article 2.6.3.1. shall be **inspected** and cleaned at intervals not greater than 12 months or more frequently where accumulations of debris will adversely affect operations.

(2) Burnt-out spark arresters shall be repaired or replaced.

Subsection 2.6.4. Electrical Equipment Vaults

2.6.4.1. Electrical equipment vaults shall not be used for storage purposes.

2.6.4.2. Electrical equipment vaults shall be kept locked so that unauthorized persons will not have access to them.

SECTION 2.7 SAFETY TO LIFE

Subsection 2.7.1. Means of Egress and Occupant Load

Open floor areas

2.7.1.1. (1) Aisles in conformance with Sentences (2) to (4) shall be provided in every **floor area** in a **mercantile occupancy** and a **business and personal services occupancy**, and in a **floor area** or portion of a **floor area** containing a **hazardous extraction** operation, that

- (a) is not subdivided into rooms or suites served by corridors giving access to exits, and
- (b) is required to have more than one exit.

(2) Every required exit shall be served by an aisle that

- (a) has a clear width not less than 1100 mm,
- (b) has access to at least one additional exit, and
- (c) at every point in the aisle provides a choice of two directions by which to reach an exit.

(3) A subsidiary aisle with only a single direction of travel to an aisle described in Sentence (2) is permitted if it has a clear width not less than 900 mm and a length that is not greater than 7.5 m.

(4) Every individual work area in a **business and personal services occupancy** shall be located adjacent to an aisle or subsidiary aisle.

2.7.1.2. RESERVED

2.7.1.3. RESERVED

Occupant load

2.7.1.4. (1) The number of persons occupying a room or floor space in an **assembly occupancy** shall not exceed the **occupant load** for the intended use as determined in Sentence (2).

(2) The **occupant load** for any room or floor space shall be the lower of

- (a) the **occupant load** as calculated in accordance with Sentences (3) to (7), or
- (b) the **occupant load** for which **means of egress** are provided as determined by the **Building Code**.

(3) The **occupant load** of a **floor area** or part of a **floor area** in an **assembly occupancy** shall be based on

- (a) the number of fixed seats, or
- (b) the number of persons
 - (i) for which the area is designed, or
 - (ii) determined from Table 2.7.1.A. for **occupancies** other than those described in Clause (a).

(4) For the purposes of this Article, **mezzanines**, tiers and balconies shall be regarded as part of the **floor area**.

(5) Where fixed bench-type seats without arms are provided, the **occupant load** shall be based on a seat width of 450 mm per person.

(6) The **occupant load** of a room in which a dance floor is situated shall be based on that portion of the room that is not occupied by the dance floor except where the **occupant load** is determined using Subclause (3)(b)(i).

(7) At no time shall the maximum **occupant load** determined in Sentences (2) to (6) exceed the **occupant load** calculated on the basis of

- (a) 0.60 m² of floor space per person in dining, alcoholic beverage and cafeteria space, and
- (b) 0.40 m² of floor space per person for all other uses.

TABLE 2.7.1.A.

Forming Part of Article 2.7.1.4.

Type of Use of Building or Floor Area or Part Thereof	Area per Person m ²
Space with fixed seats	See Clause (3) (a)
Space with nonfixed seats	0.75
Stages for theatrical performances	0.75
Space with nonfixed seats and tables	0.95
Standing space	0.40
Stadia and grandstands	0.60
Bowling alleys, pool and billiard rooms	9.30
Classrooms	1.85
School shops and vocational rooms	9.30
Reading or writing rooms or lounges	1.85
Dining, alcoholic beverage and cafeteria space	1.10
Laboratories in schools	4.60
Exhibition halls other than those classified in mercantile occupancy	2.80

Posting occupant load

2.7.1.5. (1) When the **occupant load** as determined in Article 2.7.1.4. is more than 60 persons, the **occupant load** shall be posted in a conspicuous location.

(2) When the **occupant load** has been determined using Subclause 2.7.1.4.(3)(b)(i), a permanent sign indicating the **occupant load** shall be posted in a conspicuous location.

Nonfixed seating

2.7.1.6. (1) Nonfixed row seating in an **assembly occupancy** shall be arranged as described in Sentences (2) to (8).

(2) Aisles leading to **exits** shall be provided so that there are not more than seven seats between any seat and the nearest aisle.

- (3) The minimum clear width of aisles shall be at least 1100 mm, except as permitted by Sentence (4).
- (4) Aisles required in Sentence (3) may be reduced in width to 750 mm when serving 60 seats or less, or 900 mm when serving seats on one side only.
- (5) Aisles shall terminate in a cross aisle, foyer or **exit** and the width of such cross aisle, foyer or exit shall be at least the required width of the widest aisle plus 50% of the total required width of the remaining aisles that it serves.
- (6) The distance of travel to an **exit** door by an aisle shall not be greater than 30 m, except in a **sprinklered floor area** where the distance of travel shall not be greater than 45 m.
- (7) If non-fixed row seating is provided for more than 200 persons in an **assembly occupancy**, the seats shall be fastened in units of not less than 4 and not more than 12 seats, or each end seat abutting an aisle shall be securely fastened to the floor.
- (8) Seats may be arranged in a manner that does not meet the requirements of Sentence (7) where the aisle widths are increased by 50% above the requirements set out in Sentences (2) to (6), and where the maximum **occupant load** of the space is based on not less than 1.2 m² of floor space per person.

Maintenance and lighting for exits

- 2.7.1.7. (1) **Means of egress** shall be maintained in good repair and free of obstructions.
- (2) Lighting provided for illumination in **exits** and **access to exits**, including corridors used by the public, shall be maintained.
- (3) Despite Sentence (2), the lighting provided for illumination may be controlled by motion sensors installed in accordance with the **Building Code**.

Fire escapes

- 2.7.1.8. (1) Exterior passageways, exterior stairways and fire escapes in occupied **buildings** shall be maintained in good repair and operational and kept free of snow and ice accumulations.
- (2) Where equipment is provided to melt snow or ice on exterior passageways, exterior stairways and fire escapes in an occupied **building**, the equipment shall be maintained in working order or alternative measures shall be taken as specified in Sentence (1).

Turnstiles and checkout counters

- 2.7.1.9. (1) Except as provided in Sentences (2) and (3), turnstiles, checkout counters, railings or barriers shall not obstruct the **exits** or **access to exits** from any room, **floor area** or **storey**.
- (2) Checkout counters or control posts in retail outlets may be used within **access to exits** if there is a clear width of at least 450 mm up to a height of 914 mm.
- (3) If the checkout counters or control posts exceed 914 mm in height, there shall be a clear width of at least 550 mm.
- (4) The clear width may be less than that required by Sentences (2) and (3) if an alternative **means of egress** is adjacent to and plainly visible from the restricted egress.
- (5) Wheeled carts shall be stored after use so as not to obstruct **access to exits** in retail outlets where wheeled carts are used by customers.
- (6) Despite Sentences (1) to (5), the aggregate width of **exits** and **access to exits** shall be provided.

Subsection 2.7.2. Door Hardware

Door release hardware

2.7.2.1. (1) Except where permitted under the Building Code, every **exit** door shall be designed and installed so that, when the latch is released, the door will open in the direction of **exit** travel under a force of not more than 90 N, applied at the knob or other latch releasing device.

(2) **Approved** hardware designed to release the latch and allow the door to open in the direction of **exit** travel when a force of not more than 90 N is applied to the hardware is required on

- (a) every door in an **access to exit** from a room or **suite** of **assembly occupancy** having an **occupant load** of more than 100 persons,
- (b) every **exit** door from a **floor area** containing an **assembly occupancy** having an **occupant load** of more than 100 persons,
- (c) every door leading to an **exit** lobby from an **exit** stair shaft in **buildings** having an **occupant load** of more than 100 persons,
- (d) every exterior door leading from an **exit** stair shaft in **buildings** having an **occupant load** of more than 100 persons, and
- (e) every **exit** door from a **floor area** containing a **high-hazard industrial occupancy**.

(3) Every door that opens into a corridor or other facility providing **access to exit** from a **suite** or room not located within a **suite** shall swing

- (a) on its vertical axis, and
- (b) in the direction of **exit** travel where the room or **suite** is used or intended to be used for an **occupant load** of more than 60 persons or is designed for a **high-hazard industrial occupancy**.

(4) Sentences (1) and (3) do not apply if the existing door is **approved** and either does not endanger life safety or is modified to provide life safety.

(5) Sentences (1), (2) and (3) do not apply in **rapid transit stations** that comply with the **Building Code** or to **farm buildings**.

Requirements for locking, latching and fastening devices

2.7.2.2. (1) Subject to Sentences (2) and (3), and unless otherwise approved, locking, latching and other fastening devices shall be such that a door can be readily opened from the inside with no more than one releasing operation and without requiring keys, special devices or specialized knowledge of the door opening mechanism on

- (a) every **exit** door, and
- (b) every door that is in an **access to exit** and that opens into or is located within
 - (i) a **public corridor**,
 - (ii) a facility that provides **access to exit** from a **suite**,
 - (iii) a facility that provides **access to exit** from a room serving patients or residents in a **care occupancy, care and treatment occupancy** or **retirement home**, or
 - (iv) a **floor area**, or portion of a **floor area**, that contains a hazardous extraction operation.

(2) A door in an **access to exit** or an **exit** door may be equipped with an electromagnetic locking device that is **approved** or complies with the **Building Code**, unless the door is located in an elementary or secondary school or is an egress or **exit** door that serves a **high-hazard industrial occupancy**.

(3) An egress door that serves a **contained use area** or **impeded egress zone** may be equipped with a locking device that can be released either locally or remotely in accordance with Sentences (4) to (6).

(4) A locking device with a local release permitted by Sentence (3) shall be capable of being unlocked with a key from both sides of the door.

(5) The controls for the remote release of a locking device permitted by Sentence (3) shall be in an area that is readily accessible to **supervisory staff**.

(6) A locking device permitted by Sentence (3) that is electrically operated shall be

- (a) designed to operate on emergency power, and
- (b) capable of being manually unlocked by **supervisory staff**.

(7) Sentence (1) does not apply in **rapid transit stations** that comply with the **Building Code** or to **agricultural occupancies with no human occupants**.

Egress doors

2.7.2.3. (1) Except as provided in Sentences (2), (3) and (4), all doors forming part of a **means of egress** shall be **checked** at intervals not greater than one month to ensure that they are operable.

(2) The safety features of revolving doors shall be **tested** at intervals not greater than 12 months.

(3) Sliding doors that are required to swing on their vertical axes in the direction of egress when pressure is applied shall be **tested** at intervals not greater than 12 months.

(4) When doors are equipped with electromagnetic locks, these locks shall be **tested** at intervals not greater than 12 months.

Records

2.7.2.4. Records of **tests** required in Sentences 2.7.2.3.(2), (3) and (4) shall be made and retained in conformance with Subsection 1.1.2.

Subsection 2.7.3. Exit Lighting and Emergency Lighting

Exit signs

2.7.3.1. **Exit** signs shall be clearly visible and maintained in a clean and legible condition.

Same

2.7.3.2. **Exit** lighting and exit signs shall be illuminated during times when the **building** is occupied.

Emergency lighting

2.7.3.3. Emergency lighting and **exit** signs shall be maintained in operating condition in conformance with Section 6.7.

Subsection 2.7.4. Indoor Public Amusement Areas

Fire hazards

2.7.4.1. (1) **Public amusement areas** located in **buildings** shall be designed so that they do not create a fire hazard to the public using the facility.

(2) Hay, straw, shavings, textiles, films or similar combustible materials shall not be used in the design and construction or as decorative features in **public amusement areas** located in **buildings** unless **approved** provisions are made to control the hazard.

Emergency egress

2.7.4.2. (1) Indoor **public amusement areas** that involve enclosed, confined or otherwise confusing configurations shall be provided with emergency egress points that

- (a) have appropriate width, height and capacity for the anticipated **occupant load**,

- (b) are not more than 15 m travel from any point within the **public amusement area** except as **approved**,
- (c) are clearly identified with signs, and
- (d) are equipped with emergency lighting providing a minimum lighting level of 10 lx at floor or pathway level for a duration of at least 30 min, where natural lighting is not sufficient in the circumstances.

SECTION 2.8 EMERGENCY PLANNING

Subsection 2.8.1. General

Application

2.8.1.1. (1) This Section applies to **buildings** containing

- (a) an **assembly occupancy**,
- (b) a **care occupancy**,
- (c) a **care and treatment occupancy**,
- (d) a **detention occupancy**,
- (e) a **residential occupancy** where the **occupant load** exceeds 10,
- (f) a **retirement home**,
- (g) a **business and personal services occupancy** where the **occupant load** exceeds 300,
- (h) a **mercantile occupancy** where the **occupant load** exceeds 300,
- (i) a **high-hazard industrial occupancy** where the **occupant load** exceeds 25,
- (j) a **medium-hazard industrial occupancy** where the **occupant load** exceeds 100,
- (k) a **low-hazard industrial occupancy** where the **occupant load** exceeds 300 , or
- (l) an **agricultural occupancy** where the **building** is required by the **Building Code** to have a fire alarm system.

(2) This Section also applies to **buildings** or premises

- (a) containing 4 **storeys** or more, counting **storeys** below **grade**,
- (b) to which Subsection 3.3.1 applies,
- (c) to which Article 4.1.5.5. applies,
- (d) to which Section 5.5 applies,
- (e) to which Subsection 5.14.11. applies,
- (f) to which Section 9.3 applies,
- (g) to which Sentence 9.5.3.1.(3) applies,
- (h) used as a convalescent home or children's custodial home providing sleeping accommodation for more than three persons, or
- (i) that have a **contained use area** or an **impeded egress zone**.

(3) This Section also applies to recreational camps regulated under the **Health Protection and Promotion Act**.

(4) This Section also applies to supported group living residences and intensive support residences regulated under the **Services and Supports to Promote the Social Inclusion of Persons with Developmental Disabilities Act, 2008**.

Instructions in emergency procedures

2.8.1.2. (1) **Supervisory staff** shall be instructed in the fire emergency procedures as described in the fire safety plan before they are given any responsibility for fire safety.

(2) **Supervisory staff** shall be available on notification of a fire emergency to fulfil their obligation as described in the fire safety plan.

(3) Subject to Article 2.8.2.2., **supervisory staff** are not required to be in the **building** on a continual basis.

2.8.1.3. (1) Employees in a **hotel establishment** shall be instructed on

- (a) the procedures outlined in Article 2.8.2.1., and
- (b) the use of fire fighting equipment, including portable extinguishers and, where applicable, standpipe and hose systems.

Keys and special devices

2.8.1.4. Any keys or special devices needed to operate the fire alarm system or provide access to any fire protection systems or equipment shall be readily available to on-duty **supervisory staff**.

Subsection 2.8.2. Fire Safety Plan

Measures in a fire safety plan

2.8.2.1. (1) A fire safety plan shall be prepared, **approved** and implemented in **buildings** and premises to which this Section applies.

(2) A fire safety plan shall

- (a) provide for the emergency procedures to be followed in case of fire, including
 - (i) sounding the fire alarm,
 - (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,
 - (v) procedures for use of elevators, and
 - (vi) confining, controlling and extinguishing the fire,
- (b) provide for the appointment and organization of **supervisory staff** to carry out fire safety duties,
- (c) provide for the training of **supervisory staff** and the instruction of other occupants in their responsibilities for fire safety,
- (d) include documents and diagrams showing the type, location and operation of the **building** fire emergency systems,
- (e) provide for the holding of fire drills and set out fire drill procedures,
- (f) provide for the control of fire hazards in the **building**,
- (g) provide for the maintenance of **building** facilities provided for the safety of occupants, and
- (h) provide for alternative measures to be provided for the safety of occupants during a shutdown of any or all fire protection equipment or systems.

(3) The fire safety plan shall be kept in the **building** or premises in an **approved** location.

(4) The fire safety plan shall be reviewed as often as necessary, but at least every 12 months, and shall be revised as necessary so that it takes into account changes in the use or other characteristics of the **building** or premises.

(5) Before **demolition** or construction, including hot surface applications, commences in or on the **building** or premises, the fire safety plan shall be revised to incorporate

- (a) temporary alternative measures for the fire safety of the occupants during the **demolition** or construction, and
- (b) temporary procedures to control fire hazards associated with the **demolition** or construction, including procedures to mitigate risks to adjacent **buildings**.

(6) The revised fire safety plan prepared under Sentence (4) or (5) shall be implemented.

(7) In the case of a **care occupancy**, **care and treatment occupancy** and **retirement home**, any training of **supervisory staff** carried out under a fire safety plan shall be recorded.

(8) The original or a copy of at least the most recent and the immediately preceding record referred to in Sentence (7) shall be retained in the **building** for a period of at least two years after being prepared and shall be made available to the **Chief Fire Official** for examination on request.

Supervisory staff

2.8.2.2. (1) There shall be sufficient **supervisory staff** available in **care occupancies**, **care and treatment occupancies**, **detention occupancies** and **retirement homes** to carry out the duties required in the fire safety plan.

(2) In **hotel establishments**

- (a) there shall be sufficient **supervisory staff** available to carry out the duties as required in the fire safety plan, and
- (b) in **buildings** greater than 3 **storeys** in **building height** or having a **total area** greater than 4000 m², **supervisory staff** shall be on duty whenever the **building** is occupied.

High buildings

2.8.2.3. (1) The fire safety plan in **buildings** within the scope of Subsection 3.2.6. of Division B of the **Building Code** shall, in addition to the requirements of Sentence 2.8.2.1.(2), include

- (a) the instruction of **supervisory staff** on the use of the voice communication system,
- (b) the action to be taken by **supervisory staff** in initiating any smoke control or other fire emergency systems installed in a **building** in the event of fire until the **fire department** arrives,
- (c) the procedures established to facilitate **fire department** access to the **building** and fire location within the **building**, and
- (d) the instructions for the **supervisory staff** and **fire department** for the operation of the fire emergency systems.

Fire emergency procedures to be given to supervisory staff

2.8.2.4. A copy of the fire emergency procedures and other duties for **supervisory staff** as laid down in the fire safety plan shall be given to all **supervisory staff**.

Indoor and outdoor storage of dangerous goods

2.8.2.5. (1) Where **dangerous goods** are stored or handled, the fire safety plan shall include the names, addresses and telephone numbers of persons to be contacted in case of fire during non-operating hours.

(2) Where the **dangerous goods** referred to in Sentence (1) consist of **dangerous goods** classified as radioactive materials, the fire safety plan shall also include

- (a) methods to control a fire emergency and to safely and efficiently recover radioactive materials and equipment containing radioactive materials,
- (b) the names, addresses and telephone numbers of primary and alternative sources of expert advice and assistance on radiation safety,
- (c) the location of primary and alternative sources of radiation survey instruments, and
- (d) the location and identification of storage and use areas.

Indoor storage of dangerous goods

2.8.2.6. (1) The fire safety plan for **buildings** or parts of **buildings** used for the storage of **dangerous goods** shall include the information described in Sentences (2) and (3).

(2) The fire safety plan shall identify

- (a) the product classifications for each part of the **building** where products of different classifications are stored,
 - (b) the method of storage, including aisle widths for **rack** storage,
 - (c) the maximum permitted height of storage for the **building** or part of the **building**, if different,
 - (d) the maximum permitted size of individual storage areas, and
 - (e) in **sprinklered buildings**, the sprinkler system design criteria, inside and outside hose allowances and results of the benchmark sprinkler system main drain and waterflow tests.
- (3) Where the products stored include **dangerous goods**, the fire safety plan shall identify their location and the maximum quantity of each product being stored.

Spill control

2.8.2.7. (1) The fire safety plan for **buildings**, parts of **buildings** and open areas described in Article 4.1.5.5. shall include a spill management plan that describes the measures to be taken to direct the overflow of spilled liquids and water used for firefighting away from

- (a) **buildings**,
- (b) adjoining properties,
- (c) **means of egress**,
- (d) air intakes or openings that could allow vapour entry into the **building**,
- (e) fire alarm control panels,
- (f) **fire department** access routes,
- (g) valves controlling fire protection systems and the water supply for firefighting,
- (h) **fire department** pumper connections or wall hydrants,
- (i) isolation valves controlling processes, and
- (j) valves controlling the flow of **flammable liquids or combustible liquids**.

Posting fire emergency procedures

2.8.2.8. (1) At least one copy of the fire emergency procedures shall be prominently posted and maintained on each **floor area**.

- (2) In addition to Sentence (1), in a **hotel establishment**
 - (a) one copy of the **approved** fire safety plan shall be posted in the main reception area, and
 - (b) a copy of the emergency procedures, location of **exits** and the fire safety rules shall be posted on the inside of the egress doors of each **guest suite**.

(3) Where a fire alarm system has been installed with no provisions to transmit a signal to the **fire department**, a legible notice, that is not easily removed, shall be affixed to the wall near each manual pull station with wording that the **fire department** is to be notified in the event of a fire emergency and including the emergency telephone number for the municipality or the telephone number of the **fire department**.

Subsection 2.8.3. Fire Drills

Procedures

2.8.3.1. (1) The procedure for conducting fire drills described in Clause 2.8.2.1.(2)(e) shall be included in the fire safety plan, taking into consideration

- (a) the **building occupancy** and its fire hazards,
- (b) the safety features provided in the **building**,
- (c) the desirable degree of participation of occupants other than **supervisory staff**,
- (d) the number and degree of experience of participating **supervisory staff**, and
- (e) the **testing** and operation of the emergency systems installed in **buildings** within the scope of Subsection 3.2.6. of Division B of the **Building Code**.

(2) The fire drill procedures required in Sentence (1) shall be prepared in consultation with the **Chief Fire Official**.

Frequency

2.8.3.2. (1) Subject to Sentences (2), (3), (4) and (5), a fire drill shall be held for the **supervisory staff** at least once during each 12-month period.

(2) A fire drill shall be held for the **supervisory staff** at least monthly in

- (a) a supported group living residence or intensive support residence regulated under the **Services and Supports to Promote the Social Inclusion of Persons with Developmental Disabilities Act, 2008**,
- (b) a **care occupancy**,
- (c) a **care and treatment occupancy**,
- (d) a **detention occupancy**,
- (e) premises or part of premises at which child care within the meaning of the **Child Care and Early Years Act, 2014** is provided, but excluding
 - (i) a third party program operated under section 259 or 259.1 of the **Education Act**, and
 - (ii) a child care centre or part of a child care centre, as defined in **Child Care and Early Years Act, 2014**, that is operated in a school, as defined in the **Education Act**, and that provides services only to children who are pupils of a board, as defined in the **Education Act**, and
- (f) a retirement home.

(3) In a school, as defined in the **Education Act**, and a private school, as defined in the **Education Act**, a total evacuation fire drill shall be held

- (a) if the school or private school is in session during the fall term, at least three times during that term,
- (b) if the school or private school is in session during the spring term, at least three times during that term, and
- (c) if the school or private school is in session during the summer, at least three times or at least once a month during the period it is in session, whichever is less.

(4) For an extended day program or third party program operated under section 259 or 259.1 of the **Education Act** or for a child care centre or part of a child care centre described in Subclause (2)(e)(ii), a total evacuation fire drill shall be held

- (a) if the program, child care centre or part of a child care centre is in operation during the fall term, at least three times during that term,
- (b) if the program, child care centre or part of a child care centre is in operation during the spring term, at least three times during that term, and
- (c) if the program, child care centre or part of a child care centre is in operation during the summer, at least three times or at least once a month during the period it is in operation, whichever is less.

(5) A fire drill for **supervisory staff** shall be held at least every three months in a **building** to which Subsection 3.2.6. of Division B of the **Building Code** applies.

(6) In addition to the requirements of Sentence (2), in a **care occupancy**, a **care and treatment occupancy** or a **retirement home**, a fire drill for **supervisory staff** shall be carried out at least once during each 12-month period for an **approved** scenario representing the lowest staffing level complement in the **occupancy** in order to confirm that the requirements of Sentence 2.8.2.2.(1) have been met.

(7) A fire drill for supervisory staff shall be held at least every three months in a laboratory.

Notification of Chief Fire Official

2.8.3.3. The **Chief Fire Official** shall be notified within an **approved** time period before every fire drill carried out under Sentence 2.8.3.2.(6).

Records

- 2.8.3.4. (1) A record shall be prepared of every fire drill conducted under Article 2.8.3.2.
- (2) The record shall be kept for at least 12 months after the fire drill.

Hotel employees

2.8.3.5. Every employee in a **hotel establishment** shall take part in at least one fire drill during each 12-month period.

SECTION 2.9 TENTS AND AIR-SUPPORTED STRUCTURES

Subsection 2.9.1. General

- 2.9.1.1. **Tents** and **air-supported structures** shall be in conformance with the **Building Code**.
- 2.9.1.2. This Section does not apply to **tents** that have an area of 30 m² or less and that are used for camping, personal or other non-commercial uses.

Subsection 2.9.2. Materials

Flameproofing treatments

2.9.2.1. Flameproofing treatments shall be renewed as often as necessary to ensure that the material will pass the match flame **test** in NFPA 705, "Recommended Practice for a Field Flame Test for Textiles and Films".

Subsection 2.9.3. Fire Hazards and Control

Combustible materials

- 2.9.3.1. (1) Subject to Sentences (2) and (3), hay, straw, shavings or similar combustible materials shall not be used within a **tent** or **air-supported structure** used for an **assembly occupancy**.
- (2) Hay, straw or similar combustible materials may be used if necessary for the daily feeding and care of animals.
- (3) Sawdust and shavings may be used if kept damp.

Smoking and open flames prohibited

2.9.3.2. Smoking shall not take place and open flame devices shall not be used in a **tent** or **air-supported structure** unless provisions have been made for such activities under the fire safety plan.

Fire alarm system or firewatch

- 2.9.3.3. (1) Despite Article 2.9.1.1., if a **tent** or **air-supported structure** does not have a fire alarm system that conforms to the **Building Code**,
- (a) it may have an **approved** fire alarm system that does not conform to the **Building Code** where the reliability and performance of the system will provide an adequate early warning level, or
 - (b) a person shall be employed for firewatch duty.
- 2.9.3.4. (1) A person employed for firewatch duty in accordance with Article 2.9.3.3. shall
- (a) be familiarized with all fire safety features, including the fire safety plan as provided in conformance with Section 2.8 and the condition of **exits**, and
 - (b) patrol the area to ensure that the **means of egress** are kept clear and that regulations are enforced.

Communications systems

2.9.3.5. When the conditions of Article 2.9.3.3. apply, an **approved** communications system shall be provided.

SECTION 2.10 DAY CARE CENTRES

Subsection 2.10.1. Application

Application

2.10.1.1. (1) Subject to Sentences (2) and (3), this Section applies to premises or part of premises where child care, within the meaning of the **Child Care and Early Years Act, 2014**, is provided .

(2) This Section does not apply to

- (a) a third party program operated under section 259 or 259.1 of the **Education Act**, or
- (b) a child care centre or part of a child care centre, as defined in the **Child Care and Early Years Act, 2014**, that is operated in a school, as defined in the **Education Act**, and that provides services only to children who are pupils of a board, as defined in the **Education Act**.

(3) This Section, other than Subsection 2.10.3., does not apply to an authorized recreational and skill building program, as defined in the **Child Care and Early Years Act, 2014**.

Subsection 2.10.2. Combustible Materials

Artwork and teaching materials on walls

2.10.2.1. Combustible artwork and teaching materials that are attached to walls shall not exceed 20% of the area of the walls.

Waste receptacles

2.10.2.2. Waste receptacles shall be made of noncombustible materials.

Flammable and combustible liquids

2.10.2.3. **Flammable liquids** and **combustible liquids** shall be stored in conformance with Part 4 and in areas inaccessible to children.

Subsection 2.10.3. Staffing

2.10.3.1. Where children with disabilities are cared for, sufficient staff shall be present at all times during the period the children are in the centre to escort them to safety in the event of a fire emergency.

SECTION 2.11 INSULATION AND RE-INSULATION

Subsection 2.11.1. General

2.11.1.1. The installation of insulation, including the replacement of insulation, shall be carried out in accordance with the **Building Code**.

2.11.1.2. Unless otherwise **approved**, combustible insulation shall be protected as prescribed in the **Building Code**.

2.11.1.3. Insulation shall not be placed in **building** roof-ceiling or floor-ceiling assemblies, as described in Parts 3 and 9 of Division B of the **Building Code**, where the assemblies are required to have a **fire-resistance rating** unless the insulation does not reduce the **fire-resistance rating** of the assemblies.

SECTION 2.12 COVERED MALLS

Subsection 2.12.1. General

2.12.1.1. (1) Covered malls designed for ornamental and pedestrian uses only shall not be used for merchandising or public activities, except that such activities may occur on a temporary basis where they do not create a fire hazard.

(2) Where a covered mall described in Sentence (1) is used for merchandising or public activities, the fire safety plan described in Section 2.8 shall include additional provisions to offset any hazard that may be created by such activities.

2.12.1.2. Merchandising or public activities in a **sprinklered** covered mall described in Article 2.12.1.1. shall not be carried out where such activity will create a hazard exceeding the design criteria for which the sprinkler system was designed.

2.12.1.3. (1) When a covered mall having a width of 9 m or more has been provided for the purpose of considering each portion of the **building** separated by the mall as a separate **building**, no merchandising or public activities shall be carried on within the 9 m width.

(2) Despite Sentence (1), merchandising or public activities or both may be carried on within the 9 m width where they are **approved** and they do not endanger life safety or alternative measures are taken to provide life safety.

2.12.1.4. **Access to exits** within a covered mall shall be provided and maintained in conformance with Subsection 2.7.1.

2.12.1.5. Where a covered mall is used for merchandising or public activities, the activities shall be arranged so that access to fire protection equipment, including sprinkler control valves, fire hose stations, portable extinguishers and fire alarm stations, is not restricted.

2.12.1.6. Decorative materials used for merchandising or public activities in a covered mall shall conform to Subsection 2.3.2.

2.12.1.7. Where a covered mall is used for the display of fueled equipment, batteries shall be disconnected and caps for fuel tanks shall be locked or secured against tampering.

SECTION 2.13 INSTALLATION OF SMOKE ALARMS

Subsection 2.13.1. Application and Responsibility

Application

2.13.1.1. (1) Subject to Sentences (2) and (3), this Section applies to **suites of residential occupancy** and sleeping rooms not within a **dwelling unit**.

(2) This Section does not apply to **buildings** that are subject to Part 9.

(3) This Section does not apply if **smoke alarms** have been installed in the **dwelling unit** or sleeping room not within a **dwelling unit** in accordance with the **Building Code** as it read on or after April 6, 1998.

Landlord is responsible

2.13.1.2. (1) Despite the definition of **owner** in Article 1.4.1.2. of Division A, in the case of a rental **suite**, only the landlord shall be considered to be the **owner** for the purpose of applying Article 1.2.1.1. of Division A to this Section.

(2) In this Subsection,

“landlord” means

- (a) the person, firm or corporation that owns the rental unit, including an agent acting on their behalf for purposes of carrying out duties under this Subsection, and
- (b) does not include the tenant.

Subsection 2.13.2. Installation Requirements

Installation requirements

2.13.2.1. (1) A **smoke alarm** shall be installed

- (a) if a sleeping area in a **dwelling unit** is served by a hallway, in the hallway,
- (b) if a sleeping area in a **dwelling unit** is not served by a hallway, between the sleeping area and the remainder of the **dwelling unit**,
- (c) if a sleeping room is not within a **dwelling unit**, in the sleeping room, and
- (d) on each **storey** without a sleeping area in a **dwelling unit**.

(2) A **smoke alarm** shall

- (a) be permanently connected to an electrical circuit with no disconnect switch between the overcurrent device and the **smoke alarm**, or
- (b) be battery-operated.

(3) A **smoke alarm** shall meet the requirements of CAN/ULC-S531, “Standard for Smoke Alarms”.

(4) **Smoke detectors** forming part of a residential fire warning system installed in conformance with CAN/ULC-S540, “Standard for Residential Fire and Life Safety Warning Systems: Installation, Inspection, Testing and Maintenance” and in conformance with the residential fire warning system provisions in Part 9 of Division B of the **Building Code** are deemed to be in compliance with Sentences (2) and (3).

SECTION 2.14 OUTDOOR PUBLIC AMUSEMENT AREAS

Subsection 2.14.1. General

Application

2.14.1.1. This Section applies to **public amusement areas** located outdoors.

Fire hazards

2.14.1.2. (1) Outdoor **public amusement areas** shall be designed so that they do not create a fire hazard to the public using them.

(2) Hay, straw, shavings, textiles, films or similar combustible materials shall not be used in the design and construction or as decorative features in outdoor **public amusement areas** unless **approved** provisions are made to control the hazard.

Ignition sources

2.14.1.3. Smoking shall not take place and open flames, temporary wiring, heat-producing equipment and similar ignition sources shall not be used if they would create a fire hazard, except in **approved** areas.

Emergency egress

2.14.1.4. (1) Outdoor **public amusement areas** that involve enclosed, confined or otherwise confusing configurations shall be provided with emergency egress points that

- (a) have appropriate width, height and capacity for the anticipated number of occupants,
- (b) are not more than 15 m travel from any point within the **public amusement area** except as **approved**,
- (c) are clearly identified with signs, and
- (d) are equipped with lighting providing a minimum lighting level of 10 lx at floor or pathway level for a duration of at least 30 min, where natural lighting is not sufficient in the circumstances.

Fire safety procedures

2.14.1.5. (1) The operator of the outdoor **public amusement area** shall develop and implement written fire safety procedures that include

- (a) a means of alerting the persons in the **public amusement area** of a fire emergency and notifying the **fire department**,
- (b) evacuation of endangered persons,
- (c) appointment and instruction of **supervisory staff** to carry out fire safety duties, and
- (d) fire prevention and control of fire hazards.

(2) The procedures described in Sentence (1) shall be made available to the **Chief Fire Official** upon request.

SECTION 2.15 PORTABLE OXYGEN SYSTEMS

Subsection 2.15.1. General

2.15.1.1. This Section applies to portable oxygen systems used for medical purposes in **residential occupancies** and health care facilities.

2.15.1.2. Storage, handling and use of portable oxygen systems shall be in conformance with CSA-Z305.12, "Safe Storage, Handling, and Use of Portable Oxygen Systems in Residential Buildings and Health Care Facilities".

SECTION 2.16 INSTALLATION OF CARBON MONOXIDE ALARMS

Subsection 2.16.1. Application and Responsibility

Application

2.16.1.1. (1) This Section applies to every **building** that contains a **residential occupancy** or a **care occupancy** where

- (a) the **building** contains
 - (i) a fuel-burning **appliance**,
 - (ii) a fireplace, or

- (iii) a **storage garage**, or
- (b) the **residential occupancy** or **care occupancy** is served by a forced-air fuel-burning **appliance** not contained within the **building**.

(2) This Section does not apply to a building described in Sentence (1) if carbon monoxide alarms have been installed in the building in accordance with the Building Code as it read at any time on or after January 1, 2025.

(3) For greater certainty, the term residential occupancies referenced in this Section includes retirement homes.

Landlord is responsible

2.16.1.2. (1) Despite the definition of **owner** in Article 1.4.1.2. of Division A, in the case of a rental **suite** of **residential occupancy** or **care occupancy**, only the landlord shall be considered to be the **owner** for the purpose of applying Article 1.2.1.1. of Division A to this Section.

(2) In this Subsection,

“landlord” means

- (a) the person, firm or corporation that owns the rental unit, including an agent acting on their behalf for purposes of carrying out duties under this Subsection, and
- (b) does not include the tenant.

Subsection 2.16.2. Installation Requirements

Installation requirements

2.16.2.1. (1) Where a fuel-burning **appliance**, **flue** or a fireplace is installed in a **suite** of **residential occupancy** or **care occupancy**, a carbon monoxide alarm shall be installed

- (a) adjacent to each sleeping area in the **suite**, and
- (b) on each **storey** without a sleeping area in the **suite**.

(2) Where a fuel-burning **appliance** is installed in a **building**, but not within a **suite** of **residential occupancy** or **care occupancy**, a carbon monoxide alarm shall be installed

- (a) in the **service room** or area where the **appliance** is installed,
- (b) adjacent to each sleeping area within each **suite** of **residential occupancy** or **care occupancy** where the **suite** has a common wall or common floor/ceiling assembly with the **service room** or area where the **appliance** or **flue** is installed,
- (c) on each **storey** without a sleeping area within each **suite** of **residential occupancy** or **care occupancy** where the **suite** has a common wall or common floor/ceiling assembly with the **service room** or area where the **appliance** or **flue** is installed, and
- (d) adjacent to each sleeping room that is not within a **dwelling unit**.

(3) Where a **building** contains a **storage garage**, a carbon monoxide alarm shall be installed

- (a) adjacent to each sleeping area within each **suite** of **residential occupancy** or **care occupancy** where the **suite** has a common wall or common floor/ceiling assembly with the **storage garage**,
- (b) on each **storey** without a sleeping area within each **suite** of **residential occupancy** or **care occupancy** where the **suite** has a common wall or common floor/ceiling assembly with the **storage garage**, and
- (c) adjacent to each sleeping room that is not within a **dwelling unit**.

(4) Where a forced-air fuel-burning **appliance** provides heated air to a **building** but is not located within a **suite** of **residential occupancy** or **care occupancy**, a carbon monoxide alarm shall be installed

- (a) in the **service room** or area where the **appliance** is installed, if the **appliance** is located in the **building**,

- (b) in public corridors serving suites of residential occupancy where the corridor is directly heated by the forced-air fuel burning appliance including
 - (i) at least one carbon monoxide alarm in each portion of a divided corridor, and
 - (ii) each carbon monoxide alarm in an undivided portion of a corridor is spaced not more than 25 m apart,
 - (c) adjacent to each sleeping area within each **suite of residential occupancy or care occupancy** directly heated by the forced-air fuel burning **appliance**, and
 - (d) on each **storey** without a sleeping area within each **suite of residential occupancy or care occupancy** directly heated by the forced-air fuel burning **appliance**.
- (5) A carbon monoxide alarm shall
- (a) be permanently connected to an electrical circuit with no disconnect switch between the overcurrent device and the carbon monoxide alarm,
 - (b) be battery-operated, or
 - (c) be plugged into an electrical receptacle.
- (6) A carbon monoxide alarm shall meet the requirements of CSA-6.19, “Residential Carbon Monoxide Alarming Devices” or UL 2034, “Single and Multiple Station Carbon Monoxide Alarms”.
- (7) A carbon monoxide alarm shall be mechanically fixed, attached, plugged in or placed at the manufacturer’s recommended height or, if the manufacturer has not recommended a height, on or near the ceiling.
- (8) A carbon monoxide alarm that is installed adjacent to a sleeping area shall be equipped with an alarm that is audible throughout the sleeping area, even if any doors between the carbon monoxide alarm and any parts of the sleeping area are closed.

SECTION 2.17 FARM BUILDINGS

Subsection 2.17.1. Fire Hazards and Control

Electrical systems

2.17.1.1. Temporary electrical equipment and wiring, including cord-connected electrical equipment, used in wet or corrosive environments in **farm buildings** shall not be used where it presents a fire hazard.

Mechanical equipment

2.17.1.2. Mechanical equipment used in wet or corrosive environments in **farm buildings** shall be maintained so as not to constitute a fire hazard.

Subsection 2.17.2. Signage

Warning signs

2.17.2.1. (1) A sign indicating the danger of potentially hazardous concentrations of flammable or toxic gases or vapours shall be installed at each access to a liquid manure storage tank or below-floor manure transfer chamber.

(2) A sign indicating the danger of silo gas shall be installed adjacent to each chute or ladder on a tower silo.

(3) A sign indicating the danger of entrapment shall be installed at each access to a grain storage structure or bottom-unloading tower silo.

(4) A sign indicating the danger of stored pesticides shall be installed at each entrance to a pesticide storage area.

(5) A sign indicating the danger of unsafe oxygen levels shall be installed at each entrance to a controlled-atmosphere storage area.

Subsection 2.17.3. Ambient Conditions

Control of gases and vapours

2.17.3.1. (1) Rooms or parts of **farm buildings** used for the storage of products capable of releasing flammable gases or vapours under normal ambient conditions shall be provided with a ventilation system in accordance with the **Building Code** to exhaust such gases or vapours outdoors to an area where the gases and vapours will not return to the **farm building**.

(2) A ventilation system required by Sentence (1) shall be maintained in operating condition.

Below-floor storage areas for liquid manure

2.17.3.2. (1) Except as provided in Sentence (2), **farm buildings** housing livestock with a below-floor storage area for liquid manure shall be provided with a ventilation system conforming to the **Building Code**.

(2) The requirements of Sentence (1) are waived when

- (a) the **farm building** is not occupied, and
- (b) the liquid manure has been removed from the storage area or reduced to the extent that it does not constitute a fire hazard.

(3) A ventilation system required by Sentence (1) shall be maintained in operating condition.

PART 3

OUTDOOR AND INDOOR STORAGE

TABLE OF CONTENTS

SECTION 3.1	GENERAL
Subsection 3.1.1.	Application
Subsection 3.1.2.	Dangerous Goods
SECTION 3.2	INDOOR STORAGE
Subsection 3.2.1.	Indoor Tire Storage
Subsection 3.2.2.	Indoor General Storage
Subsection 3.2.3.	Indoor Storage of Ammonium Nitrate
Subsection 3.2.4.	Indoor Storage of Combustible Fibres
Subsection 3.2.5.	Indoor Storage of Aerosol Products
Subsection 3.2.6.	RESERVED
Subsection 3.2.7.	Indoor Storage of Dangerous Goods
SECTION 3.3	OUTDOOR STORAGE
Subsection 3.3.1.	Outdoor Storage of Tires
Subsection 3.3.2.	Outdoor Storage of Lumber and Forest Products
Subsection 3.3.3.	Outdoor Storage of Wood Chips
Subsection 3.3.4.	Outdoor Storage of Dangerous Goods
SECTION 3.4	INDUSTRIAL TRUCKS
Subsection 3.4.1.	General
Subsection 3.4.2.	Industrial Trucks
SECTION 3.5	SALVAGE SHOPS AND SALVAGE YARDS
Subsection 3.5.1.	General
Subsection 3.5.2.	Piling

SECTION 3.1 GENERAL

Subsection 3.1.1. Application

Application

3.1.1.1. This Part applies to the use, storage and handling of hazardous materials and combustible materials.

Radioactive materials

3.1.1.2. (1) Dangerous goods classified as radioactive materials shall be stored in conformance with the Nuclear Safety and Control Act (Canada) and its regulations.

(2) Radioactive nuclear substances and equipment shall be returned to storage after use.

Explosives

3.1.1.3. The storage of dangerous goods classified as explosives shall be in conformance with the Explosives Act (Canada) and its regulations.

3.1.1.4. RESERVED.

Subsection 3.1.2. Dangerous Goods

Classification

3.1.2.1. (1) Classes and divisions of **dangerous goods** referred to in this Code shall mean

- (a) their primary and first subsidiary classification as defined in Part 2 of the **Transportation of Dangerous Goods Regulations**, SOR/2001-286, made under the **Transportation of Dangerous Goods Act (Canada)**, or
- (b) the categories and subcategories established by the “Workplace Hazardous Materials Information System (WHMIS)” for hazardous products determined in Part 7 of the **Hazardous Products Regulations**, SOR/2015-17, made under the Hazardous Products Act (Canada).

(2) Substances classified as miscellaneous **dangerous goods** shall be stored according to the hazard they present based on their properties as **dangerous goods**.

(3) For the purposes of this Code, **dangerous goods** classified as flammable liquids shall mean **flammable liquids** and **combustible liquids** as defined in Subsection 4.1.2.

Ambient temperature

3.1.2.2. (1) Ammonium nitrate classified as oxidizers shall not be stored in an area where the ambient air temperature is higher than 52°C.

(2) **Dangerous goods** shall not be stored in areas where the ambient temperature may cause them to become unstable or susceptible to undesirable reactions.

(3) **Dangerous goods** shall be stored in refrigerated areas where such refrigeration is necessary to stabilize the substances.

Packages and containers

3.1.2.3. (1) **Dangerous goods** shall be stored in packages or containers

- (a) made of materials that are compatible with the product they contain, and
- (b) of durable construction and designed to resist damage from normal material handling activities.

(2) Where the package or container for a specific type of **dangerous goods** is subject to a standard established by a transportation regulatory authority, such package or container shall conform with the applicable standard.

Storage arrangement and conditions

3.1.2.4. (1) **Dangerous goods** shall be stored in stable piles such that they will not collapse under normal operating conditions.

(2) In addition to the provisions of Article 3.1.2.2., **dangerous goods** shall not be stored in areas where they may be subject to

- (a) temperature extremes or atmospheric pressure that could cause their containers to become deformed or rupture, or
- (b) physical impact or temperature extremes that could cause a chemical reaction or chemical instability such that a fire could occur.

3.1.2.5. RESERVED

Reactive materials

3.1.2.6. (1) Reactive materials shall be stored based on their properties when classified as **dangerous goods**.

(2) Reactive materials that are unstable and susceptible to reactions, such as polymerization or self-accelerating decomposition initiated by heat, shock, vibration, light, an increase in pressure or sound waves, shall be stored in a location and manner that will prevent the undesired reaction.

(3) Reactive materials that may react with water or humidity shall be stored in sealed containers in a dry location.

(4) Reactive materials that ignite spontaneously in air shall be stored in a liquid that is inert to the material, in an inert atmosphere or in sealed containers.

(5) For the purposes of this Code, unstable **dangerous goods** shall be considered as reactive materials based on their reactive properties.

SECTION 3.2 INDOOR STORAGE

Subsection 3.2.1. Indoor Tire Storage

Application

3.2.1.1. This Subsection applies to **buildings** used for the storage of tires in which the bulk volume of tires stored in one **fire compartment** exceeds 425 m³.

Tire pile dimensions

3.2.1.2. A single pile of tires in a tire storage location shall occupy an area not greater than 500 m² with a maximum length of 30 m.

3.2.1.3. (1) The maximum piling height of tires shall not exceed the height used for the design of the sprinkler system installed as required in Article 3.2.1.8.

(2) The maximum piling height allowed in Sentence (1) shall be posted in conspicuous locations.

Pile clearance

3.2.1.4. A clearance of at least 914 mm shall be maintained between the tops of piles and sprinkler head deflectors.

3.2.1.5. Aisles between individual piles shall be at least 1.8 m wide.

3.2.1.6. A clearance of at least 600 mm shall be maintained between piles of tires and columns and enclosing walls.

3.2.1.7. A tire storage location shall be classified as a **medium-hazard industrial occupancy**.

Warehouse sprinkler systems

3.2.1.8. (1) If the **floor area** of a tire storage location exceeds 250 m², the **floor area** shall be provided with a sprinkler system installed in accordance with NFPA 13, “Standard for the Installation of Sprinkler Systems”.

(2) The design of the sprinkler system required in Sentence (1) shall be based on the maximum piling height available.

3.2.1.9. A standpipe and hose system shall be installed in conformance with NFPA 13, “Standard for the Installation of Sprinkler Systems”.

Portable extinguishers

3.2.1.10. (1) In addition to the requirements of Section 6.2, multi-purpose dry chemical portable extinguishers having a rating of 4A:80B shall be installed

- (a) in every 500 m² of **floor area**, and
- (b) so that the distance travelled to any extinguisher does not exceed 25 m.

Subsection 3.2.2. Indoor General Storage

Application

3.2.2.1. (1) Subject to Sentences (2) and (3), this Subsection applies to the indoor general storage of combustible solids, noncombustible solids with combustible packaging or storage aids, including storage in bin boxes, shelves or **racks**.

(2) This Subsection, except Article 3.2.2.6., does not apply to special hazard commodities covered elsewhere in this Code.

(3) This Subsection does not apply to the bulk storage of unpackaged grain, coal or similar commodities.

Storage dimensions

3.2.2.2. (1) An **individual storage area** shall not exceed 500 m² in **buildings** that are not **sprinklered**.

(2) An individual storage area shall not exceed 1000 m² in **sprinklered buildings**.

(3) Heights of storage in **buildings** that are not **sprinklered** shall not exceed 4.5 m.

(4) The maximum height of storage of any **individual storage area** shall be determined according to

- (a) the stability of the stored products as it relates to the base area and shape, and
- (b) the height limitations otherwise set in this Subsection.

(5) **Buildings** containing **individual storage areas** that exceed 6.4 m in height shall be protected with

- (a) a sprinkler system designed and installed in accordance with NFPA 13, “Standard for the Installation of Sprinkler Systems”, or
- (b) a sprinkler system installed before January 1, 2015 that has been **approved**.

Pile clearance

3.2.2.3. (1) The clearance between sprinkler head deflectors and the top of any storage shall not be less than 457 mm.

(2) Where the top of any storage is above the lower chords of floor or roof structural framing members, a horizontal clear space of at least 300 mm shall be maintained between the storage and the structural members.

Fire access aisles

3.2.2.4. At least one main aisle having a width equal to at least half the height of the highest adjacent pile and extending the length of the structure shall be provided but in no case shall the width of the aisle be less than 2.4 m.

3.2.2.5. Aisles separating **individual storage areas** described in Article 3.2.2.2. shall be at least 2.4 m wide.

3.2.2.6. (1) Adequate access for fire fighting purposes shall be provided and maintained to all portions of the premises, in conformance with Sentences (2) to (6).

(2) Access aisles not less than 1.0 m wide shall be provided to **exits**, to **fire department** access panels and to fire protection equipment.

(3) Aisles shall be maintained free of obstruction.

(4) Except as permitted by Sentence (5), at least one main access aisle shall extend the length of the **building** with a minimum width of

- (a) 2.4 m for storage heights not more than 6 m, and
- (b) 3.6 m for storage heights of more than 6 m.

(5) Narrower aisles may be **approved** where the **building** is **sprinklered** and the sprinkler design is based on aisle widths less than required by Sentence (4) but in no case shall the aisle width be less than the aisle width on which the sprinkler design is based.

(6) In storage areas that exceed 200 m², main access aisles referred to in Sentence (4) shall be accessible from at least two **fire department** access points, which shall be located such that, in the event one becomes unusable due to fire, the other will still allow emergency responders to access the **building**.

3.2.2.7. Wall clearances of at least 600 mm shall be maintained where stored commodities may swell or expand with the absorption of water.

Palletized storage arrangements

3.2.2.8. Palletized storage shall be arranged so that unobstructed horizontal channels formed by the top and bottom of pallets shall not exceed 15 m.

3.2.2.9. Except as permitted in Article 3.2.2.10., pallets and dunnage not in use shall be stored outdoors and be located so as to avoid an exposure hazard.

Pallet storage

3.2.2.10. (1) Except as permitted in Sentences (2) and (3), combustible pallets shall be stored outdoors in conformance with Section 2.4.

(2) Indoor storage of combustible pallets is permitted in a **building** that is not **sprinklered**, provided

- (a) the height of storage of combustible pallets is not more than 1.2 m,
- (b) the width of an **individual storage area** is not more than 7.5 m, and
- (c) the aggregate area of storage is not more than
 - (i) 100 m² for wood or solid deck non-expanded polyethylene pallets, or
 - (ii) 50 m² for plastic pallets not described in Subclause (i).

(3) In a **sprinklered building**, the storage of combustible pallets is permitted to exceed the values in Sentence (2) provided such storage conforms to NFPA 13, “Standard for the Installation of Sprinkler Systems”.

Smoking prohibited

3.2.2.11. Smoking shall not take place in indoor storage areas, except as provided in Subsection 2.4.3.

Subsection 3.2.3. Indoor Storage of Ammonium Nitrate

Application

- 3.2.3.1. (1) This Subsection applies to the storage of ammonium nitrate mixtures that are
- (a) classified as Class 5.1 Oxidizing Substances under Part 2 of the **Transportation of Dangerous Goods Regulations**, SOR/2001-286, made under the **Transportation of Dangerous Goods Act (Canada)**, and
 - (b) stored in quantities exceeding 1000 kg inside buildings.
- (2) This Subsection does not apply to
- (a) blasting agents, or
 - (b) ammonium nitrate and ammonium nitrate mixture storage on railways regulated by the Canadian Transport Commission.

Storage buildings

3.2.3.2. (1) A **building** used for the storage of ammonium nitrate shall not be more than 1 **storey** in **building height**.

- (2) A **building** used for the storage of ammonium nitrate shall not
 - (a) have **basements** or crawl spaces, or
 - (b) contain open floor drains, tunnels, elevator pits or other pockets which might trap molten ammonium nitrate.
- (3) A **building** used for the storage of ammonium nitrate shall have not less than 70 cm² in vent area for each square metre of storage area unless mechanical ventilation is provided.
- (4) All flooring in storage areas shall be of noncombustible materials.
- (5) A **building** used for the bulk storage of ammonium nitrate shall be designed to prevent contact with **building** material that
 - (a) will cause the ammonium nitrate to become unstable,
 - (b) may corrode or deteriorate by reason of contact with the ammonium nitrate, or
 - (c) will become impregnated by ammonium nitrate.
- (6) The distance between an ammonium nitrate storage facility and the property line of another property shall be not less than
 - (a) 15 m where the other property contains a warehouse for **flammable liquids** storage or a facility for loading or unloading **flammable liquids**,
 - (b) 15 m where the other property contains a **building** classified as **medium-hazard industrial occupancy** or **low-hazard industrial occupancy** provided the ammonium nitrate storage facility does not exceed 200 t of ammonium nitrate,
 - (c) 30 m where the other property contains a **building** classified as **industrial occupancy** not covered in Clause (b), **flammable liquids storage tanks**, flammable gas **storage tanks** or other tanks containing a hazardous substance, or
 - (d) 90 m for all other **occupancies**.

(7) The distance in Clause (6)(b) may be reduced to 7.5 m if a **firewall** that has a **fire-resistance rating** not less than 2 h is provided between the storage facility and the **building** it exposes.

(8) The distance in Clause (6)(c) may be reduced to 15 m for a **medium-hazard industrial occupancy** or a **low-hazard industrial occupancy** if a **firewall** that has a **fire-resistance rating** not less than 2 h is provided between the storage facility and the **building** it exposes.

(9) The use of **buildings** or structures that do not conform with the provisions of Sentences (6) to (8) may be **approved** where the **buildings** or structures do not constitute a hazard to life or property from fire or explosion.

(10) Except where other forms of exposure protection are **approved**, the walls of the exposed side of a storage **building** shall be noncombustible where such walls are within 15 m of a

- (a) combustible **building**,
- (b) forest, or
- (c) pile of combustible material.

Industrial trucks

3.2.3.3. (1) In addition to the requirements of Section 3.4, industrial trucks used or stored within the **building** shall be maintained so that fuels or hydraulic fluids do not contaminate the ammonium nitrate.

(2) Fuel-dispensing operations shall not be carried out in **buildings** where ammonium nitrate is stored.

(3) An internal combustion engine shall be continuously monitored at all times in a **building** where ammonium nitrate is stored unless the engine is located in an area that will prevent the spread of a fire originating in the engine.

(4) Industrial trucks used for the transportation of ammonium nitrate shall be cleaned of remaining material following use.

Portable extinguishers

3.2.3.4. In addition to the requirements of Section 6.2, pressurized-water portable extinguishers having a rating of 2A or larger shall be installed.

Storage

3.2.3.5. (1) **Individual storage areas** of bagged ammonium nitrate shall not exceed 1500 m² in area and 9 m in height.

(2) Wall clearances of not less than 600 mm shall be maintained where stored products may swell or expand with the absorption of water.

(3) In **buildings** that are not **sprinklered**, a clearance of not less than 1 m between the top of storage and the underside of the floor or roof deck shall be maintained.

(4) The clearance between the top of storage and ceiling sprinkler deflectors shall conform to the standard used to design the sprinkler system.

(5) Ammonium nitrate shall not be stored in an area where the ambient temperature is such that it can become unstable or susceptible to undesirable reactions.

(6) Ammonium nitrate storage shall be identified by signs of contrasting colours indicating the contents with letters 50 mm high.

(7) Bulk storage of ammonium nitrate shall be located indoors or in enclosed bin-type structures.

(8) Bins used for the storage of ammonium nitrate shall not contain galvanized iron, copper, lead or zinc or other materials that may contaminate or be corroded by ammonium nitrate.

Automatic sprinklers

3.2.3.6. (1) Ammonium nitrate shall be stored only in **buildings** equipped with an automatic sprinkler system installed in conformance with NFPA 13, “Standard for the Installation of Sprinkler Systems”.

(2) Sentence (1) does not apply where the existing situation is **approved** and does not endanger life safety or alternative measures to the requirements set out in Sentence (1) are taken to provide life safety.

Disposal

3.2.3.7. (1) Spilled ammonium nitrate material shall be disposed of in conformance with Sentences (2) to (5).

(2) Uncontaminated material may be rebagged in suitable slip-over bags and sealed to prevent spillage.

(3) Unsalvageable material shall be removed by sweeping and burial.

(4) After flushing and scrubbing contaminated areas very thoroughly to dissolve all material, the residue shall be washed away with hoses.

(5) Empty bags shall be disposed of by burning outdoors where permitted in a safe area, or by burial.

Explosives prohibited

3.2.3.8. Explosives shall not be used to break up caked ammonium nitrate.

Smoking and open flames prohibited

3.2.3.9. (1) Smoking shall not take place and open flames shall not be used in **buildings** used for the storage of ammonium nitrate.

(2) Signs with letters 50 mm high indicating that ammonium nitrate is being stored and that smoking is not permitted shall be prominently displayed near each entrance on the exterior of **buildings** identified in Sentence (1).

Heating equipment

3.2.3.10. Heating equipment shall be separated from any storage area in conformance with the requirements of the **Building Code**.

Subsection 3.2.4. Indoor Storage of Combustible Fibres

Application

3.2.4.1. This Subsection applies to the indoor storage of **combustible fibres**.

Building size for storage and handling of combustible fibres

3.2.4.2. **Buildings** used for the storage and handling of **combustible fibres** shall comply with the height and area limitations of the **Building Code** for **medium-hazard industrial occupancies**.

Loose fibre storage

3.2.4.3. (1) Up to 3 m³ of loose **combustible fibres** may be stored in a single **fire compartment** if they are kept in metal-lined bins equipped with self-closing metal-lined covers.

(2) Quantities of loose **combustible fibres** exceeding 3 m³ but not exceeding 15 m³ shall be stored in rooms separated from the remainder of the **building** by a **fire separation** that has a **fire-resistance rating** not less than 1 h.

(3) Quantities of loose **combustible fibres** exceeding 15 m³ but not exceeding 30 m³ shall be stored in rooms separated from the remainder of the **building** by a **fire separation** that has a **fire-resistance rating** not less than 2 h.

- (4) Quantities of loose **combustible fibres** that exceed 30 m³ shall be stored in an individual room
- (a) that is **sprinklered** in accordance with NFPA 13, “Standard for the Installation of Sprinkler Systems”, and
 - (b) that is separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 2 h.

(5) Quantities of loose **combustible fibres** stored in an individual room referred to in Sentence (4) shall be arranged so that an individual pile does not exceed 250 m² in area and is separated from other piles by aisles that are at least 2.4 m wide.

(6) Clause (4)(a) does not apply to a sprinkler system that met the requirements of this Code on December 31, 2014, as it read on that day.

Baled fibre storage

- 3.2.4.4. (1) Baled **combustible fibres** shall be stored so that
- (a) a single pile will not contain more than 700 m³,
 - (b) the maximum height of any single pile will not exceed 4.5 m,
 - (c) piles are separated by aisles not less than 1.5 m wide, and
 - (d) the clearance between piles and **building** walls is not less than 1 m.

Baled storage piles

3.2.4.5. The sides of baled storage piles shall be inclined back from the base of the pile with a slope of not less than 1 m for each 10 m of height.

Clearance for sprinklers and structural framing

3.2.4.6. (1) The clearance between sprinkler head deflectors and the tops of storage piles shall not be less than 457 mm.

(2) If the storage piles are above the lower chords of floor or roof structural framing members, a horizontal clear space of 300 mm shall be maintained between the storage and the structural members.

Heating equipment

3.2.4.7. (1) Unless controlled in a manner that will not create a fire or explosion hazard, fuel-fired **appliances** and electrical heating elements shall not be used in a storage area for **combustible fibres**.

(2) Shields shall be provided that will prevent stored material from coming within 300 mm of any part of a heating system heat distribution network.

Standpipe and hose system installations

3.2.4.8. Standpipe and hose systems shall be installed in accordance with the **Building Code**.

Portable extinguishers

3.2.4.9. Portable extinguishers shall be provided in accordance with Section 6.2.

Smoke vents

3.2.4.10. If **combustible fibres** are stored in a **building**, automatic smoke venting hatches that are manually operable from remote locations and have a combined opening area of 64 cm² for each square metre of **floor area** shall be provided.

Subsection 3.2.5. Indoor Storage of Aerosol Products

Application

3.2.5.1. This Subsection shall apply to the indoor storage of packaged aerosol products as classified in Article 3.2.5.2.

Classification

3.2.5.2. For the purposes of this Subsection, aerosol products shall be classified as Level 1, 2 or 3 in conformance with NFPA 30B, “Code for the Manufacture and Storage of Aerosol Products”.

Level 1 aerosols

3.2.5.3. Packaged Level 1 aerosol products shall be protected as required for Class III commodities, in both palletized and rack storage, in conformance with Article 3.2.7.19.

Level 2 and 3 aerosols

3.2.5.4. (1) The storage of packaged Level 2 and 3 aerosol products shall conform to Table 3.2.5.4. and Articles 3.2.5.5. to 3.2.5.8.

(2) Where storage of packaged aerosol products is mixed, protection shall be provided for the most hazardous classification present.

TABLE 3.2.5.4.

Maximum Amount of Packaged Level 2 and 3 Aerosol Products, kg⁽¹⁾
Forming Part of Article 3.2.5.4.

Amount of Packaged Level 2 and 3 Aerosol Products	Less than or equal to 1000 kg in building that is not sprinklered	Greater than 1000 kg but less than or equal to 5000 kg in building that is not sprinklered	Greater than 5000 kg but less than or equal to 10000 kg in building that is not sprinklered	Less than or equal to 10000 kg in sprinklered building	Greater than 10000 kg but less than or equal to 50000 kg in sprinklered building	Greater than 50000 kg in sprinklered building
Type of Dedicated Area required	None	Type A ⁽²⁾	Type B ⁽³⁾	None	Type A ⁽²⁾	Type B ⁽³⁾

Notes to Table 3.2.5.4.:

⁽¹⁾ One pallet load of packaged aerosols is approximately 1000 kg.

⁽²⁾ See Article 3.2.5.6.

⁽³⁾ See Article 3.2.5.7.

Sprinkler systems

3.2.5.5. (1) A sprinkler system that is used for the storage of Level 2 and 3 aerosol products shall be designed and installed in conformance with NFPA 13, “Standard for the Installation of Sprinkler Systems”, with additional sprinkler protection provided in conformance with NFPA 30B, “Code for the Manufacture and Storage of Aerosol Products” for areas in which packaged aerosol products are stored.

(2) If a sprinkler system that is used for the storage of Level 2 and 3 aerosol products does not conform to Sentence (1), the **building** shall be deemed to not be **sprinklered** for the purpose of applying Table 3.2.5.4.

Type A dedicated areas

3.2.5.6. (1) Where a Type A dedicated storage area is required to accommodate the storage limits stated in Sentence 3.2.5.4.(1), it shall be separated from the remainder of the **building** by chain link fencing or a noncombustible **partition** that is capable of withstanding the impact of rocketing cans and that extends to the underside of the roof deck or to the ceiling which must also be capable of withstanding the impact of rocketing cans.

(2) Chain link fencing referred to in Sentence (1) shall be not lighter than 2.9 mm steel wire woven into a 50 mm diamond mesh.

Type B dedicated areas

3.2.5.7. (1) Where a Type B dedicated storage area is required to accommodate the storage limits in Sentence 3.2.5.4.(1), it shall be separated from the remainder of the **building** by **partitions**

- (a) having not less than a 1 h **fire-resistance rating**,
- (b) capable of withstanding the impact of rocketing cans, and
- (c) extending to the underside of the roof or to a ceiling of construction equivalent to the **partitions**.

Storage height

3.2.5.8. (1) Except as provided in Sentence (2), the height of storage of packaged Level 2 or 3 aerosols shall be not greater than

- (a) 1.75 m where products are in solid piles or on pallets, or
- (b) 6.1 m where products are on **racks**.

(2) Where the **building** is **sprinklered** in conformance with Article 3.2.5.5. and an enclosure conforming to Article 3.2.5.6. or 3.2.5.7. is provided, the height of storage of packaged Level 2 or 3 aerosols shall be not greater than

- (a) 6.1 m where products are in solid piles or on pallets, or
- (b) the height limit determined by the design capacity of the sprinkler system where products are on **racks**.

Aisles

3.2.5.9. Aisles separating **racks**, shelves or piles of packaged Level 2 or 3 aerosol products shall be not less than 2.4 m wide.

Subsection 3.2.6. RESERVED

Subsection 3.2.7. Indoor Storage of Dangerous Goods

Application

3.2.7.1. (1) Except as otherwise specified in this Code, this Subsection applies to buildings or parts of buildings where dangerous goods in packages or containers are stored in a single fire compartment.

(2) Where the amount of stored dangerous goods referred to in Sentence (1) does not exceed the amount stated in Column C of Table 3.2.7.1., it shall be exempted from the requirements of this Subsection.

(3) Where a product has multiple classes, the applicable small quantity exemption referred to in Sentence (2) shall be determined using

- (a) Column A of Table 3.2.7.1. based on the class having precedence, as established in Section 2.8 of Transportation of Dangerous Goods Regulations, SOR/2001-286, made under the Transportation of Dangerous Goods Act (Canada),

- (b) Column B of Table 3.2.7.1. based on the class having precedence, for hazardous products under the “Workplace Hazardous Materials Information System (WHMIS)” for hazardous products determined in Part 7 of the Hazardous Products Regulations, SOR/2015-17, made under the Hazardous Products Act (Canada), or
- (c) when the class having precedence cannot be established, Column C of Table 3.2.7.1. based on the lesser of the two small quantity exemptions.

TABLE 3.2.7.1.

Small Quantity Exemptions for **Dangerous Goods**
Forming Part of Article 3.2.7.1.

OFC Class	Column A TDG Class ⁽¹⁾ and description	Column B WHMIS Class ⁽²⁾	Column C Maximum Exempt Amount of Stored Product
Explosives	1 – Explosives	N/A	See Article 3.1.1.3.
Compressed gases	2 – Gases	A	N/A
Compressed gases - Flammable gases/aerosols	2 – Division 1, flammable gases	B1	25 kg
Compressed gases - Flammable gases/aerosols	2 – Division 1, flammable gases	B5	See Subsection 3.2.5
Compressed gases Non- flammable, non-toxic gases	2 – Division 2, non-flammable, non-toxic gases	A	150 kg
Compressed gases - Oxidizing gases	2 – Division 2, non-flammable, non-toxic gases with subsidiary Class 5.1	A+C	75 kg
Toxic gases	3 – Division 3 toxic gases	A+D1, A+D2 or A+E	0
Flammable liquids	3 – Flammable Liquids	B2 or B3	See Part 4
Flammable solids	4 – Division 1 flammable solids	B4	100 kg ⁽⁶⁾
Pyrophoric materials	4 – Division 2 substances liable to spontaneous combustion	N/A	50 kg
Water-reactive substances	4 – Division 3 water- reactive substances	B6	50 kg
Oxidizing substances ⁽⁷⁾	5 – Oxidizing substances and organic peroxides	N/A	N/A
Oxidizing substances ⁽⁷⁾ - Oxidizers	5 – Division 1 oxidizing substances ⁽⁸⁾ Packing Group I, II or III	N/A	250 kg or 250 L
Oxidizing substances ⁽⁷⁾ - Organic peroxides	5 – Division 2 organic peroxides	C ⁽⁹⁾	100 kg or 100 L
Toxic and infectious substances	6 – Toxic and infectious substances	D	N/A
Toxic and infectious substances - Toxic substances	6 – Division 1 toxic substances, Packing Group I	D1A	0

TABLE 3.2.7.1.
(continued)

OFC Class	Column A TDG Class(1) and description	Column B WHMIS Class(2)	Column C Maximum Exempt Amount of Stored Product
Toxic and infectious substances - Toxic substances	6 – Division 1 toxic substances, Packing Group II	D1B	100 kg or 100 L
Toxic and infectious substances - Toxic substances	6 – Division 1 toxic substances, Packing Group III	D2A or D2B	1000 kg or 1000 L
Toxic and infectious substances - Infectious materials	6 – Division 2 infectious substances	D3	0
Radioactive materials	7 – Radioactive materials	N/A	See Article 3.1.1.2.
Corrosives	8 – Corrosives ⁽⁸⁾	N/A	N/A
Corrosives	8 – Corrosives ⁽⁸⁾ , Packing Group I	E	500 kg or 500 L
Corrosives	8 – Corrosives ⁽⁸⁾ , Packing Group II	E	1000 kg or 1000 L
Corrosives	8 – Corrosives ⁽⁸⁾ , Packing Group III	E	2000 kg or 2000 L
Miscellaneous dangerous goods	9 – Miscellaneous products, substances or organisms	N/A	See Article 3.1.2.1. ⁽¹⁰⁾
Dangerously Reactive Materials	N/A	F	0

Notes to Table 3.2.7.1.:

(1) The numbers refer to the class and division of **dangerous goods** as defined in the **Transportation of Dangerous Goods Regulations**, SOR/2001-286 (TDGR), made under the **Transportation of Dangerous Goods Act (Canada)**.

(2) The categories and subcategories in the “Workplace Hazardous Materials Information System (WHMIS)” refer to hazardous products classified in Part 7 of the **Hazardous Products Regulations**, SOR/2015-17, made under the **Hazardous Products Act (Canada)**.

(3) RESERVED.

(4) RESERVED.

(5) RESERVED.

(6) 50 kg for nitrocellulose-based products; 10 kg for “strike anywhere” matches.

(7) “Oxidizing substances” refers to solids or liquids, not gases.

(8) The TDGR defines “packing group” as “a group in which dangerous goods are included based on the inherent danger of the **dangerous goods**” Packing Group I products are more hazardous than Packing Group III products.

⁽⁹⁾ Class C in the WHMIS applies to oxidizing materials. Oxidizers do not usually self-combust but they will feed a fire by supplying oxygen or cause other materials to suddenly ignite. Oxidizers exist in all three states: gas (oxygen, ozone), liquid (nitric acid, perchloric acid solutions) and solid (potassium permanganate, sodium chlorite). Some oxidizers, such as the organic peroxide family, have both combustibility and oxidizing properties, which means they can have strong reactions that can result in an explosion.

The exempt amount listed for oxidizing materials in this Table applies to two categories of oxidizers based on the TDGR classification: oxidizing substances and organic peroxides. Since the WHMIS does not have a corresponding classification for these two categories of oxidizers, it was decided that the exempt amount applicable to Class C should be the more stringent one, thus reducing the potential that large quantities of oxidizing materials with combustibility properties will be stored without implementing the applicable safety measures in Subsection 3.2.7.

⁽¹⁰⁾ Small quantity exemptions may be determined by other authorities such as the TDGR, the WHMIS and environmental protection legislation.

Ignition sources

3.2.7.2. (1) Heating **appliances** shall not be permitted in a **fire compartment** used for the storage of **dangerous goods** classified as flammable gases, flammable liquids, flammable solids, pyrophoric materials, water-reactive substances, oxidizers or organic peroxides, unless they are installed in a manner that will not create a fire or explosion hazard.

(2) Smoking shall not be permitted within a **fire compartment** used for the storage of **dangerous goods** and signs shall be posted in conformance with Article 2.4.3.2.

(3) Except as provided in Sections 3.4. and 5.17, open flames and spark-producing devices shall not be used in an area where **dangerous goods** are stored.

Ambient conditions

3.2.7.3. (1) Rooms or parts of **buildings** used for the storage of **dangerous goods**

- (a) shall be dry and cool, and
- (b) where the products being stored are capable of releasing flammable or toxic gases or vapours under normal ambient conditions, shall be provided with a ventilation system to exhaust such gases or vapours outdoors to an area where they will not return to the **building**.

Housekeeping

3.2.7.4. (1) Areas where **dangerous goods** are stored shall be kept free of waste packaging materials, debris of any kind or any spilled product.

(2) Broken packages or containers of **dangerous goods** shall be moved to a safe location and the product repackaged and labelled as soon as possible.

Storage arrangements

3.2.7.5. (1) The method of storage of **dangerous goods** shall

- (a) be determined to ensure the physical and chemical stability of the stored products,
- (b) except as provided in Sentences (2) and (5), not exceed the maximum heights of storage shown in Table 3.2.7.5., and
- (c) not exceed the maximum base areas for **individual storage areas** shown in Table 3.2.7.19.

(2) Storage heights for a protected storage area stated in Table 3.2.7.5. are permitted to be exceeded provided the **dangerous goods** are stored on **racks** or shelves.

(3) When a storage area is required by this Article to be protected, it shall be **sprinklered** or protected with a special fire suppression system, in conformance with NFPA 13, “Standard for the Installation of Sprinkler Systems”, Part 2 and good engineering practice with respect to specific **dangerous goods**.

(4) Stored **dangerous goods** other than **compressed gases** shall be kept not less than 100 mm above the floor level.

(5) **Flammable liquids** and **combustible liquids** shall be stored in conformance with Part 4.

(6) Except as permitted in Table 3.2.7.6. of this Code, solid and liquid **dangerous goods** classified as oxidizers or organic peroxides shall be separated from the remainder of the **building** in conformance with Sentence 3.3.6.2.(1) of Division B of the **Building Code**, as it read on January 1, 2025.

(7) Reactive materials shall be separated from the remainder of the **building** in conformance with Sentence 3.3.6.2.(2) of Division B of the **Building Code**, as it read on January 1, 2025.

(8) Packages or containers of **dangerous goods** classified as organic peroxides shall not be opened, or the product dispensed, in the same area where it is stored.

(9) Except where the width of storage of **dangerous goods** is not more than 1.5 m, measured out from the wall, wall clearances of not less than 400 mm shall be maintained.

TABLE 3.2.7.5.

Storage Height Limits for **Dangerous Goods**, m
Forming Part of Article 3.2.7.5.

Packing Group ⁽¹⁾	Storage Height Limits for Dangerous Goods in Unprotected Storage (m)	Storage Height Limits for Dangerous Goods in Protected Storage (m)
Packing Group I	1.8	2.4
Packing Group II	2.4	4
Packing Group III	4.5	6

Notes to Table 3.2.7.5.:

⁽¹⁾ See Table 3.2.7.1.

Separation from other dangerous goods

3.2.7.6. (1) Except as required in Sentences (3) and (4), Clause 5.6.2.4.(1)(h) and Article 5.6.2.6., **dangerous goods** shall be separated from other **dangerous goods** in conformance with Table 3.2.7.6.

(2) The **fire-resistance rating** of the **fire separations** delimiting each fire compartment shall be determined in accordance with the applicable requirements of the Code.

(3) In addition to the separation requirements in Sentence (1), **dangerous goods** shall be stored in conformance with the information provided in the Safety Data Sheet for the specific **dangerous good**.

(4) **Flammable liquids**, **combustible liquids** and **dangerous goods** classified as corrosives shall not be stored with **dangerous goods** classified as radioactive materials in quantities or in a manner that would constitute an undue risk in the event of a fire.

TABLE 3.2.7.6.

Separation Chart for Storage of **Dangerous Goods**⁽¹⁾⁽²⁾
Forming Part of Article 3.2.7.6.

OFC Class			Flammable Gases/ Aerosols	Non- flammable, Non-toxic Gases	Oxidizing Gases	Toxic Gases	Flammable Liquids	Flammable Solids	Pyrophoric Materials	Water-re- active Substances	Oxidizers	Organic Peroxides	Toxic Sub- stances/ Infectious Materials	Corrosives		Danger- ously Reactive Materials	
TDG Class ⁽³⁾			2.1	2.2	2.2(5.1)	2.3	3	4.1	4.2	4.3	5.1	5.2	6	8		—	
WHMIS Class ⁽⁴⁾			B1, B5	A	A+C	A+D, A+E	B2, B3	B4	—	B6	—	C	D	E		F	
														Acid ⁽⁵⁾	Base ⁽⁶⁾		
Dangerously Reactive Materials	—	F	X	X	X	X	X	X	X	X	X	X	X	X	X	P	
Corrosives	8	E	Acid ⁽⁵⁾	X	P	X	1m	1m	1m	1m	X	X	X	1m	P	1m	X
		Base ⁽⁶⁾	X	P	1m	1m	1m	1m	1m	1m	X	1m	1m	1m	1m	P	X
Toxic Substances/ Infectious Materials	6	D	X	P	1m	DS	DS	DS	DS	DS	1m	X	P	1m	1m	X	
Organic Peroxides	5.2	C	X	P	X	X	X	X	X	X	X	P	X	X	1m	X	
Oxidizers	5.1	—	X	P	P	1m	X	X	X	X	P	X	1m	X	1m	X	
Water-reactive Substances	4.3	B6	DS	P	X	DS	1m	DS	DS	P	X	X	DS	X	X	X	
Pyrophoric Materials	4.2	—	1m	P	X	1m	1m	1m	P	DS	X	X	DS	1m	1m	X	
Flammable Solids	4.1	B4	P	P	X	1m	P	P	1m	DS	X	X	DS	1m	1m	X	
Flammable Liquids	3	B2, B3	P	P	X	X	P	P	1m	1m	X	X	DS	1m	1m	X	
Toxic Gases	2.3	A+D, A+E	X	P	1m	P	X	1m	1m	DS	1m	X	DS	1m	1m	X	
Oxidizing Gases	2.2(5.1)	A+C	X	P	P	1m	X	X	X	X	P	X	1m	X	1m	X	
Non-flammable, Non-toxic Gases	2.2	A	P	P	P	P	P	P	P	P	P	P	P	P	P	X	
Flammable Gases/Aerosols	2.1	B1, B5	P	P	X	X	P	P	1m	DS	X	X	X	X	X	X	

Notes to Table 3.2.7.6.:

⁽¹⁾ For the purpose of this Table:

1. If a **dangerous good** has both a TDG Class and a WHMIS Class, the TDG Class shall apply.
2. If two **dangerous goods** each have a TDG Class with or without a WHMIS Class, the TDG Class shall apply.
3. If two **dangerous goods** each have a WHMIS Class but no TDG Class, the WHMIS Class shall apply.
4. If one **dangerous good** has a WHMIS Class but no TDG Class and another **dangerous good** has a TDG Class but no WHMIS Class, the TDG Class and the WHMIS Class in combination shall apply.

⁽²⁾ Definitions for entries in this Table:

X = incompatible **dangerous goods**: these goods shall be stored in separate **fire compartments**.

1m = incompatible **dangerous goods**: these goods shall be separated by a horizontal distance of not less than 1 m.

P = permitted **dangerous goods**: these goods are permitted to be stored close together.

DS = refer to Safety Data Sheet for these **dangerous goods**.

A+C = hazardous products of Class A combined with C.

A+D = hazardous products of Class A combined with D.

A+E = hazardous products of Class A combined with E.

B2, B3 = hazardous products of Class B2 or B3.

B1, B5 = hazardous products of Class B1 or B5.

(3) The numbers refer to the classes and divisions of **dangerous goods** as defined in the **Transportation of Dangerous Goods Regulations**, SOR/2001-286, made under the **Transportation of Dangerous Goods Act (Canada)**.

(4) The letters and numbers refer to the categories and subcategories of hazardous products under the “Workplace Hazardous Materials Information System (WHMIS)” as classified in Part 7 of the **Hazardous Products Regulations**, SOR/2015-17, made under the **Hazardous Products Act (Canada)**.

(5) Acid: corrosive materials with a pH below 2 according to the Safety Data Sheet.

(6) Base: corrosive materials with a pH above 11.5 according to the Safety Data Sheet.

Corrosion protection

3.2.7.7. Measures shall be taken to prevent or minimize corrosion or deterioration of shelving, racks and piping system components due to contact with stored **dangerous goods**.

Flooring materials

3.2.7.8. (1) Floors in areas where **dangerous goods** are stored shall be

- (a) constructed in conformance with Sentence 3.3.6.7.(1) of Division B of the **Building Code**, as it read on January 1, 2025, and
- (b) maintained as an impervious membrane.

(2) **Dangerous goods** classified as oxidizers or organic peroxides shall not be stored on combustible floors or platforms.

Fire suppression systems

3.2.7.9. (1) Except as permitted in Sentences (2) and (3) and in Part 4, **buildings** used for the storage of **dangerous goods** regulated by this Subsection shall be equipped throughout with a

- (a) sprinkler system designed in conformance with Article NFPA 13, “Standard for the Installation of Sprinkler Systems”, or
- (b) fire suppression system designed in conformance with Article 2.1.3.5.

(2) **Buildings** described in Sentence (1) need not be equipped throughout with a sprinkler system or other fire suppression system provided that

- (a) the sum of **individual storage areas** in the **building** used for the storage of **dangerous goods**, other than substances classified as miscellaneous **dangerous goods** with no other class and those covered in Part 4, does not exceed 100 m², and
- (b) the **dangerous goods** are
 - (i) separated in conformance with Table 3.2.7.6., and
 - (ii) stored in **fire compartments** separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** of not less than 2 h.

(3) **Buildings** described in Sentence (1) need not be equipped throughout with a sprinkler system or other fire suppression system, provided that storage consists only of **dangerous goods** classified as non-flammable, non-toxic gases with no subsidiary class of oxidizing substances.

Smoke venting

3.2.7.10. Where the collective **individual storage areas** for **dangerous goods** exceed 10 m² in a **fire compartment**, means shall be provided for manual or automatic venting of smoke and toxic gases from the storage area under fire conditions.

Spill control

3.2.7.11. (1) Measures to control spilled liquid or solid **dangerous goods** shall be provided in conformance with Subsection 4.1.6.

- (2) Materials or liquids used in the cleanup of spills and leakages of **dangerous goods** shall be
 - (a) compatible and non-reactive with the **dangerous goods** being cleaned up, and
 - (b) disposed of in conformance with Subsection 4.1.6.

Fire department access

3.2.7.12. (1) Except as provided in Sentences (2) and (3), **fire department** access to **buildings** described in Article 3.2.7.1. shall be in conformance with Section 2.5.

(2) When the collective **individual storage area** for **dangerous goods** exceeds 10 m², **buildings** regulated by Sentence (1) shall be accessible to **fire department** vehicles from at least two sides for the purpose of firefighting.

(3) In **buildings** regulated by Sentence (1), access openings to each storey provided in conformance with the **Building Code** shall be not less than 750 mm wide by 1100 mm high.

Labels

3.2.7.13. Products classified as **dangerous goods** shall display appropriate identifying labels from the time they enter a facility until they are issued as finished products or waste material.

Placards

3.2.7.14. (1) **Individual storage areas** used for the storage of **dangerous goods** and laboratories where **dangerous goods** are used shall be clearly designated as such by posted placards conforming to the Transportation of Dangerous Goods Regulations, SOR/2001-286, made under the **Transportation of Dangerous Goods Act (Canada)** and Sentences (2) to (4).

(2) Where the **dangerous goods** identified in Sentence (1) consist of a single product, only the UN number need be posted.

(3) Where the **dangerous goods** identified in Sentence (1) consist of multiple products within the same class, the individual class and division placard shall be posted.

(4) Where the **dangerous goods** identified in Sentence (1) consist of more than one class of products, a placard for each individual class, or the "Danger" placard shown in the Transportation of Dangerous Goods Regulations, SOR/2001-286, made under the **Transportation of Dangerous Goods Act (Canada)**, shall be posted at the entrance to the storage area.

(5) **Individual storage areas** described in Sentence (1) shall be identified in the fire safety plan as required in Article 2.8.2.6.

Training

- 3.2.7.15. (1) In a **building** regulated by this Subsection, at least one person shall
- (a) be trained in conformance with Sentence (2),
 - (b) provide supervision during operating hours, and
 - (c) be available to respond to a day or night emergency.

(2) The person providing supervision specified in Sentence (1) shall be trained in the correct procedures for the handling, storing and offering for transport of **dangerous goods**.

(3) All persons involved in the storage and handling of **dangerous goods** shall be trained in safe handling procedures and correct responses to an emergency situation.

Unauthorized access

3.2.7.16. An area used for the storage of **dangerous goods** shall be secured against unauthorized access.

Separation from combustible products

3.2.7.17. **Dangerous goods** shall not be stored in the same individual storage area with other combustible products.

Storage of oxidizers in mercantile occupancies

3.2.7.18. (1) This Article applies to **mercantile occupancies**.

(2) **Dangerous goods** classified as oxidizers that are located within **mercantile occupancies** in quantities not exceeding those permitted by Table 3.2.7.1. shall be separated from ordinary combustible material by a distance of at least 1 m.

(3) A clear space of not less than 2.4 m shall be maintained between the oxidizing substances identified in Sentence (2) and any other **dangerous goods**.

Individual storage areas

3.2.7.19. (1) Except as provided in Sentence (2), the size of **individual storage areas** shall not exceed the limits shown in Table 3.2.7.19.

(2) In a **sprinklered building**, the height of storage in **racks** is permitted to exceed the limits shown in Table 3.2.7.19.

TABLE 3.2.7.19.
Size Limits for **Individual Storage Areas**
Forming Part of Article 3.2.7.19.

Product Classification	Maximum area in building that is not sprinklered (m ²)	Maximum height of storage in building that is not sprinklered (m)	Maximum area in sprinklered building (m ²)	Maximum height of storage in sprinklered building (m)
Class I commodities	500	6.5	1500	9.0
Class II commodities	500	6.5	1500	9.0
Class III commodities, Group C plastics	250	4.5	1000	9.0
Closed containers of distilled beverage alcohol	250	4.5	1000	9.0
Class IV commodities, Group B plastics	250	3.6	1000	9.0
Group A plastics	250	1.5	500	6.1

Sprinkler systems

3.2.7.20. Where a sprinkler system is required to accommodate **individual storage areas** referred to in Article 3.2.7.19., the sprinkler system shall be designed and installed in conformance with NFPA 13, “Standard for the Installation of Sprinkler Systems”.

SECTION 3.3 OUTDOOR STORAGE

Subsection 3.3.1. Outdoor Storage of Tires

Application

3.3.1.1. (1) This Subsection applies to outdoor tire storage yards where tires or shredded tires are stored if the bulk volume of the stored product exceeds 300 m³.

(2) This Subsection does not apply if the stored tires or shredded tires in the storage yard are covered by a minimum depth of 150 mm of noncombustible material.

Fire protection provisions

3.3.1.2. (1) Open-air burning of tires or shredded tires shall not take place in storage yards.

(2) Hot works or heating devices shall not be operated in storage yards.

(3) Smoking shall not take place in storage yards, except as provided in Subsection 2.4.3.

(4) Storage piles of tires or shredded tires in storage yards shall not be located beneath electrical power lines with a voltage in excess of 750 volts or that supply power to fire emergency systems.

Fire safety planning

3.3.1.3. (1) Storage yards shall comply with the requirements of Section 2.8.

(2) The fire safety plan shall include provisions respecting access within the **fire department** access routes for water supply systems or other measures that are **approved** under Article 3.3.1.10.

(3) At least one copy of the fire emergency procedures shall be prominently posted and maintained at the storage yard.

(4) The telephone number of the **fire department** and location of the nearest telephone shall be posted conspicuously in attended locations.

Pile dimensions, locations and clearance

3.3.1.4. (1) Individual storage piles of tires or shredded tires in a storage yard shall not be more than 3 m in height and 100 m² in area.

(2) Despite Article 3.5.2.1., storage piles of tires or shredded tires in a storage yard shall be located

(a) at least 15 m from property lines,

(b) at least 15 m from **buildings**,

(c) at least 4.5 m from combustible ground vegetation comprised of grass and weeds, and

(d) at least 30 m away from combustible ground vegetation comprised of brush and forested areas.

(3) Despite Article 3.5.2.2., individual storage piles of tires or shredded tires in a storage yard shall be separated

(a) from other individual storage piles of tires or shredded tires by a clear space of at least 6 m, and

(b) from other individual storage piles by a clear space of at least 6 m.

Clearance for bulk volume over 4800 m³

3.3.1.5. (1) This Article applies if the bulk volume of stored tires and shredded tires in a storage yard is more than 4800 m³.

(2) The tires and shredded tires shall be stored in a group of no more than 16 individual storage piles.

(3) A minimum clearance of 22 m shall be provided around the perimeter of each group of storage piles.

Alternative approved measures

3.3.1.6. Despite Articles 3.3.1.4. and 3.3.1.5., other **approved** storage pile arrangements may be used to prevent the spread of fire.

Fire department access

3.3.1.7. (1) Each storage yard shall be provided with fire access routes.

(2) The fire access routes shall

- (a) have a clear width of at least 6 m,
- (b) be designed to support the loads imposed by fire fighting equipment,
- (c) be surfaced with material designed to permit accessibility under all climatic conditions,
- (d) be connected with a public thoroughfare in at least two places that are located as remotely from each other as is possible in the circumstances,
- (e) be located within all storage pile clearances identified in Clauses 3.3.1.4.(2)(a) and (b) and Article 3.3.1.5.,
- (f) be at least 6 m away from any storage pile,
- (g) be accessible and unobstructed at all times, and
- (h) be located so that every point in the storage yard where storage piles are located is within 50 m of a fire access route.

(3) Despite Sentences (1) and (2), alternate fire access routes may be provided if

- (a) the routes permit fire fighting vehicles and equipment access and permit the use of fire suppression techniques appropriate in the circumstances, and
- (b) the routes are **approved**.

Fencing and gateways

3.3.1.8. (1) If the bulk volume of stored tires and shredded tires is more than 600 m³, the storage yard shall be surrounded by a firmly anchored fence or other **approved** method of security that controls unauthorized access to the storage yard.

(2) If a fence is used, the fence shall be at least 1.8 m high and constructed to discourage climbing.

(3) The fence shall have gateways with a clear width of at least 3.5 m.

(4) The gateways shall be high enough to permit the entry of **fire department** vehicles.

(5) The gateways shall be kept clear of obstructions so that the gates may be fully opened at all times.

(6) The gateways shall be locked when the storage yard is not staffed.

Water supply

3.3.1.9. (1) A public or private water supply shall be provided so that any part of the storage yard can be reached by using not more than 150 m of hose.

(2) If the bulk volume of stored tires and shredded tires is between 300 m³ and 1200 m³, the water supply system shall be capable of supplying at least 1860 L/min for a minimum of 3 h.

(3) If the quantity of stored product is 1200 m³ or more, the water supply system shall be capable of supplying at least 3780 L/min for a minimum of 3 h.

(4) If on-site reservoirs or other established water supplies are used as a **fire department** draft source to meet the requirements of Sentences (1), (2) and (3), they shall be equipped with dry hydrants in accordance with Chapter 9 of NFPA 1142, “Standard on Water Supplies for Suburban and Rural Fire Fighting”.

Water supply alternative measures

3.3.1.10. Despite Article 3.3.1.9., other water supply systems or other measures may be used if the systems or measures will provide sufficient fire suppression capability in the circumstances and if the systems or measures are **approved**.

Portable extinguishers

3.3.1.11. A motorized vehicle operating in a storage yard shall be equipped with at least one portable extinguisher having a minimum rating of 2A:30B:C.

Subsection 3.3.2. Outdoor Storage of Lumber and Forest Products

Application

3.3.2.1. (1) Subject to Sentence (2), this Subsection applies to outdoor storage yards where lumber and forest products are stored.

(2) This Subsection does not apply if

- (a) the storage yard is **approved** and does not create a fire hazard or endanger life safety, or
- (b) the storage yard is **approved** and **approved** alternative measures to the requirements set out in this Subsection are taken to prevent the creation of a fire hazard and protect life safety.

Surface of ground

3.3.2.2. (1) Except as permitted in Sentence (2) and Article 3.3.2.3., storage sites for lumber and other forest products shall consist of level and solid ground that is paved or surfaced with noncombustible material.

(2) Soft storage beds may be used for logs where embedment of stones or cinders may cause damage to cutting knives.

Surface under piling

3.3.2.3. (1) Forest products shall not be piled on refuse-filled or sawdust-filled land except where the site is covered with a layer of compacted earth to a minimum depth of 150 mm.

(2) Peat and humus are not acceptable materials for compacted earth cover in Sentence (1).

Clearance for yard storage areas

3.3.2.4. (1) Fire exposure to the yard areas from the mill operations and other structures shall be limited by providing clear space.

(2) The width of clear space shall be based upon the severity of exposure that will vary with the area, height, **occupancy**, construction and protection of the exposing structure and the type of piling and height of adjacent lumber piles.

(3) To provide for fire fighting operations, the clear space permanently available shall not be less than 4.5 m.

Clearance for stickered lumber piles

3.3.2.5. (1) Stickered lumber piles in storage yards shall be located at least 15 m from property lines and buildings.

- (2) Large size timbers and flat-piled stock may be stored or piled on the perimeter of the yard.

Clearance from vegetation

3.3.2.6. Storage yards shall be maintained free of combustible ground vegetation, including grass and weeds, for 4.5 m from the stored material and 30 m from brush and forested areas.

Wood waste accumulation prohibited

- 3.3.2.7. Sawdust, chips and other waste material shall not be accumulated in piling areas in storage yards.

Separation of treated lumber piles

3.3.2.8. Lumber and timber treated with **combustible liquids** shall be stored in piles that are separated from other stored material so that the distance between piles is at least twice the height of the treated pile, but not less than 4.5 m.

Storage beneath power lines

3.3.2.9. Stickered lumber piles, and piles of lumber and timber treated with **combustible liquids** shall not be stored beneath electrical power lines having a voltage in excess of 750 volts or that supply power to fire emergency systems.

Pile heights

- 3.3.2.10. Pile heights for stickered lumber piles shall not exceed 6 m.

3.3.2.11. Pile heights for randomly stacked or unranked piles shall not exceed 6 m unless special fire suppression equipment, such as portable turrets, deluge sets and monitor towers, is installed.

Fire department access

3.3.2.12. (1) Unless otherwise **approved**, each storage yard shall be provided with at least two fire access routes in conformance with Sentence (2).

- (2) The fire access routes required in Sentence (1) shall
- (a) have a clear width of at least 6 m, unless it can be shown that lesser widths are satisfactory,
 - (b) be designed to support the expected loads imposed by fire fighting equipment and be surfaced with concrete, asphalt or other material designed to permit accessibility under all climatic conditions,
 - (c) be connected with a public thoroughfare, and
 - (d) be located as remotely as is possible in the circumstances from each other.

3.3.2.13. (1) Where storage areas are fenced or otherwise enclosed, gateways having a clear width of at least 3.5 m shall be provided to permit entry of **fire department** vehicles.

- (2) Gateways shall be kept clear of obstructions so that gates may be opened fully at all times.

3.3.2.14. Groups of lumber piles shall be arranged with a maximum width of 15 m and a maximum length of 45 m, with **fire department** access routes surrounding each group of piles.

3.3.2.15. Vehicle parking and equipment storage is permitted on one side of a fire access route provided the clear width of the access route, as required under Clause 3.3.2.12.(2)(a), is maintained.

- 3.3.2.16. RESERVED

Burning of wood waste materials

3.3.2.17. Shavings, sawdust and refuse materials shall be burned only in **boilers** or **furnaces**, or in incinerators or refuse burners conforming to Subsection 2.6.3.

3.3.2.18. Refuse burners or incinerators referred to in Article 3.3.2.17. shall be located at least 15 m from **buildings**, property lines or piles of logs or lumber.

3.3.2.19. Where the size and design of the burner or spark-arresting screen, the prevailing winds or the location and arrangement of yard storage creates a fire hazard by conforming to Article 3.3.2.18., an **approved** increase in clear space referred to in Article 3.3.2.18. shall be provided to alleviate the fire hazard.

3.3.2.20. A refuse bin conforming to Sentence 2.4.1.3.(3) shall be provided at each **boiler, furnace**, incinerator and refuse burner referred to in Article 3.3.2.17.

3.3.2.21. Salamanders, braziers or other open flames shall not be used in storage yards.

Smoking prohibited

3.3.2.22. Smoking shall not take place in storage yards, except as provided in Subsection 2.4.3.

3.3.2.23. The telephone number of the **fire department** and location of the nearest telephones shall be posted conspicuously in working locations in the open yard and in each **building**.

Fire extinguishing provisions

3.3.2.24. (1) Outdoor lumber storage shall have fire protection provisions consisting of

- (a) 200 L vessels with lids, having an opening of 457 mm least dimensions, located so that no person will have to travel more than 25 m from any part of the storage yard to reach a vessel, and
- (b) three 12 L standard fire pails at each vessel.

(2) The water stored in the vessels and pump tanks shall be protected from freezing.

(3) The vessels, pails and pump tanks shall be painted red with the word “FIRE” in black painted thereon.

(4) Portable extinguishers having a 2A or higher rating conforming to the requirements of Section 6.2 may be provided in lieu of the requirements of Sentence (1).

3.3.2.25. Portable extinguishers shall be provided in conformance with Section 6.2 in each **building** located in a storage yard.

Hydrant systems and water supply

3.3.2.26. The water supply available shall be adequate for hose streams and monitor towers, based on the provision of **approved** fire protection.

Hydrant system

3.3.2.27. A storage yard shall be provided with a hydrant system or mobile pumping equipment that can reach all parts of the storage yard with no more than 60 m of hose.

Subsection 3.3.3. Outdoor Storage of Wood Chips

Application

3.3.3.1. (1) Subject to Sentence (2), this Subsection applies to outdoor storage yards where wood chips are stored.

(2) This Subsection does not apply if

- (a) the storage yard is **approved** and does not create a fire hazard or endanger life safety, or
- (b) the storage yard is **approved** and **approved** alternative measures to the requirements set out in this Subsection are taken to prevent the creation of a fire hazard and protect life safety.

Surface of ground

3.3.3.2. The storage site shall be well drained and be level, solid ground or paved with asphalt, concrete or other hard surface material.

3.3.3.3. The ground surface between piles shall be kept free of combustible materials.

Vegetation removal

3.3.3.4. (1) Weeds, grass and similar vegetation shall be removed from the yard.

(2) Portable open-flame weed burners shall not be used in chip storage yards.

Pile dimensions

3.3.3.5. Piles shall not exceed 18 m in height, 90 m in width and 150 m in length unless temporary water pipes with hose connections are laid on the top surface of the pile.

Fire department access

3.3.3.6. (1) Space shall be maintained between chip piles and exposing structures, yard equipment or stock equal to

- (a) twice the pile height for combustible stock or **buildings**, or
- (b) the pile height for noncombustible **buildings** and equipment.

(2) Despite Sentence (1), space between chip piles and exposing structures, yard equipment or stock shall not be less than 9 m.

3.3.3.7. Where storage areas are fenced or otherwise enclosed, gates at least 3.5 m in width shall be provided to permit entry of **fire department** vehicles.

3.3.3.8. (1) Permanently installed access walkways at least 1.8 m wide and constructed of noncombustible material shall be provided so that hose streams may be directed on any part of the piles.

(2) Despite Sentence (1), other **approved** means may be used to ensure adequate **fire department** access to the piles.

3.3.3.9. Piles exceeding 150 m in length shall be surrounded by **fire department** access routes at least 9 m wide.

Smoking prohibited

3.3.3.10. Smoking shall not take place in storage yards, except as provided in Subsection 2.4.3.

Fire extinguishing provisions

3.3.3.11. Portable extinguishers for **Class A fires** shall be provided on vehicles operating on chip piles in addition to the units for **Class B fires** normally required for the vehicles.

3.3.3.12. (1) Hose houses or cabinets shall be provided around the perimeter of chip piles at intervals not exceeding 120 m.

(2) One 75 m length of 65 mm hose and two portable extinguishers having a 2A or higher rating and conforming to Section 6.2 shall be installed in each hose house or cabinet.

(3) Each hose required in Sentence (2) shall be connected to a water supply capable of supplying 1140 L/min of water to it at a pressure that will allow the hose stream to reach the top of the chip pile.

3.3.3.13. Portable extinguishers in conformance with Section 6.2 shall be provided in transfer houses.

Subsection 3.3.4. Outdoor Storage of Dangerous Goods

Application

- 3.3.4.1. (1) Except as provided in Part 4 or otherwise specified in this Code, this Subsection applies to the outdoor storage of **dangerous goods** in packages or containers.
- (2) The storage of **dangerous goods** in quantities exceeding the maximum exempted amounts stated in Table 3.2.7.1., in a single **individual storage area**, shall conform to this Subsection.
- (3) Where a product has multiple classes, the applicable small quantity exemption referred to in Sentence (2) shall be determined using
- (a) Column A of Table 3.2.7.1. based on the class having precedence, as established in Section 2.8 of **Transportation of Dangerous Goods Regulations**, SOR/2001-286, made under the **Transportation of Dangerous Goods Act (Canada)**,
 - (b) Column B of Table 3.2.7.1. based on the class having precedence, for hazardous products under the “Workplace Hazardous Materials Information System (WHMIS)” for hazardous products determined in Part 7 of the **Hazardous Products Regulations**, SOR/2015-17, made under the **Hazardous Products Act (Canada)**, or
 - (c) when the class having precedence cannot be established, Column C of Table 3.2.7.1. based on the lesser of the two small quantity exemptions.

Individual storage areas and clearances

- 3.3.4.2. (1) An **individual storage area** for **dangerous goods** shall not be greater than 1000 m².
- (2) Except for the distance between a **building** and cylinders of **dangerous goods** classified as **compressed gases**, a clear space of not less than 6 m shall be provided around each **individual storage area** for **dangerous goods**.
- (3) **Dangerous goods** shall not be stored to a height greater than 6 m.

Separation from other dangerous goods

- 3.3.4.3. (1) Except as provided in Sentence (2) and Article 3.3.4.8., **dangerous goods** shall be separated from other **dangerous goods** in conformance with Article 3.2.7.6.
- (2) Incompatible **dangerous goods** that are not allowed in Table 3.2.7.6. to be stored in the same **fire compartment** are permitted to be separated by a minimum horizontal distance of 3 m in lieu of a **fire separation** when in an outdoor storage area.

Separation from combustible products

- 3.3.4.4. **Dangerous goods** and other combustible products shall not be stored in the same **individual storage area**.

Identification

- 3.3.4.5. The outdoor storage of **dangerous goods** shall conform to Articles 3.2.7.13. and 3.2.7.14.

Training

- 3.3.4.6. The training of persons involved in the outdoor storage of **dangerous goods** shall conform to Article 3.2.7.15.

Safety precautions

- 3.3.4.7. (1) When **dangerous goods** are stored outside of a **building**, safety precautions shall be taken to prevent undesirable reactions from the effects of atmospheric conditions.

(2) Damaged or leaking packages or containers of **dangerous goods** shall be moved to a safe location and the product repackaged and labelled as soon as possible.

Intermodal shipping containers

3.3.4.8. Intermodal shipping containers used for the transportation of **dangerous goods**, as well as their contents, shall be stored in conformance with the segregation requirements stated in IMO 2012, “International Maritime Dangerous Goods Code”.

SECTION 3.4 INDUSTRIAL TRUCKS

Subsection 3.4.1. General

General

3.4.1.1. The designation, use, maintenance and operation of industrial trucks, including fork lifts, tractors, sweepers and motorized hand trucks, shall comply with NFPA 505, “Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operation”.

Subsection 3.4.2. Industrial Trucks

Fuel-fired industrial trucks

- 3.4.2.1. (1) Fuel-fired industrial trucks shall be stored in
- (a) detached **buildings**,
 - (b) areas separated from the remainder of the storage area by a **fire separation** having a **fire-resistance rating** of not less than 1 h, or
 - (c) areas where the vehicles do not create a fire hazard to the storage area.
- (2) Except as provided in Sentence (3), industrial trucks shall be refuelled only at designated locations outside **buildings**.
- (3) Industrial trucks that are fuelled by replaceable propane cylinders are permitted to have their cylinders replaced indoors provided
- (a) cylinder replacement is done at a safe location that is at least 7.5 m from ignition sources, open pits and underground entrances,
 - (b) the cylinder valves are closed, and
 - (c) when an automatic quick-closing coupling that closes in both directions when uncoupled and **listed** to ANSI/UL 558, “Industrial Trucks, Internal Combustion Engine-Powered”, is not provided, the engine is operated until the fuel in the system is consumed.
- (4) Each fuel-fired industrial truck shall be equipped with at least one portable extinguisher having a minimum rating of 2A:30B:C.
- (5) Propane cylinders shall be stored in conformance with Section 5.6.

Battery-powered industrial trucks

- 3.4.2.2. (1) Battery charging installations for battery-powered industrial trucks shall be located
- (a) at least 1.5 m from combustible materials,
 - (b) when serving more than two trucks, in well ventilated areas,
 - (c) in areas where flammable gases or vapours, **combustible dusts** or **combustible fibres** are not present in hazardous quantities, and
 - (d) in areas where precautions are taken to prevent ignition sources, such as open flames, sparks or electric arcs.

(2) Battery charging installations for battery-powered industrial trucks shall be equipped with at least one portable extinguisher having a minimum rating of 2A:30B:C.

(3) Facilities shall be provided at battery charging installations for flushing and neutralizing spilled electrolyte and for protecting charging apparatus from mechanical damage.

Training

- 3.4.2.3. (1) Only trained and authorized personnel shall
- (a) operate industrial trucks,
 - (b) replace or refuel propane cylinders for fuel-fired industrial trucks,
 - (c) refuel fuel-fired industrial trucks, or
 - (d) change or charge batteries for battery-powered industrial trucks.

SECTION 3.5 SALVAGE SHOPS AND SALVAGE YARDS

Subsection 3.5.1. General

Roof storage prohibited

3.5.1.1. The roof of a **building** located in a salvage yard shall not be used for storage purposes.

Fires prohibited

3.5.1.2. Open flames shall not be used in a salvage yard, except for the purposes of heating, operating machinery or performing hot works.

3.5.1.3. Gas tanks on vehicles to be salvaged shall be drained and ventilated prior to salvage operations.

Fire access gates

3.5.1.4. Where storage areas are fenced or otherwise enclosed, gates having a clear width of 3.5 m shall be provided to permit the entry of **fire department** vehicles.

Fire extinguishing provisions

3.5.1.5. Except where all salvage and scrap material is noncombustible and free of combustibles, water barrels of 200 L capacity with three 12 L pails or portable extinguishers having a 2A or higher rating conforming to the requirements of Section 6.2 shall be provided, so that the maximum distance travelled from any part of the yard to a barrel or extinguisher is 25 m.

3.5.1.6. Portable extinguishers in conformance with Section 6.2 shall be provided in each **building** located in a salvage yard.

Hydrant systems and water supply

3.5.1.7. Except as required in Article 3.5.1.8., where a municipal hydrant system exists and is adjacent to the yard, the hydrant system shall be extended into the yard area so that all parts of the salvage yard can be reached by using not more than 60 m of hose.

3.5.1.8. Article 3.5.1.7. does not apply where the fire protection that is provided by the municipal hydrants and mobile pumping equipment is **approved** as being adequate in the circumstances.

Smoking prohibited

3.5.1.9. Smoking shall not take place in salvage yards, except as provided in Subsection 2.4.3.

3.5.1.10. The telephone number of the **fire department** and location of the nearest telephones shall be posted conspicuously in working locations in the open yard and in each **building**.

Subsection 3.5.2. Piling

Pile clearance and dimensions

3.5.2.1. Piles that include combustible salvage shall be 3 m from property lines, and not more than 3 m in height and 100 m² in area.

3.5.2.2. Piles of salvage material shall be separated by a clear space of 3 m that is kept clear of grass and weeds.

Piles of tanks or drums

3.5.2.3. Tanks or drums shall be stored in piles separate from piles of other materials.

Combustible metals

3.5.2.4. (1) Piles or containers with metal shavings, turnings and dusts shall be stored in an area separate from other salvage materials and identified with warning signs.

(2) Warning signs required in Sentence (1) shall

(a) be visible from all directions of approach, and

(b) have the name of the metal and the words “COMBUSTIBLE METAL – DO NOT USE WATER” displayed in plain legible letters as described in Sentence (3).

(3) Lettering on warning signs shall be red or white letters 114 mm high with a 19 mm stroke on a contrasting background.

PART 4 FLAMMABLE AND COMBUSTIBLE LIQUIDS

TABLE OF CONTENTS

SECTION 4.1 GENERAL

- Subsection 4.1.1. Scope
- Subsection 4.1.2. Classification
- Subsection 4.1.3. Flash Point
- Subsection 4.1.4. Electrical Installations
- Subsection 4.1.5. Fire Prevention and Protection
- Subsection 4.1.6. Spill Control and Drainage Systems
- Subsection 4.1.7. Ventilation
- Subsection 4.1.8. Handling of Flammable and Combustible Liquids

SECTION 4.2 CONTAINER STORAGE AND HANDLING

- Subsection 4.2.1. Scope
- Subsection 4.2.2. General
- Subsection 4.2.3. Containers and Portable Tanks
- Subsection 4.2.4. Assembly and Residential Occupancies
- Subsection 4.2.5. Mercantile Occupancies
- Subsection 4.2.6. Business and Personal Services, Educational, Care, Care and Treatment and Detention Occupancies
- Subsection 4.2.7. Industrial Occupancies
- Subsection 4.2.8. Incidental Use
- Subsection 4.2.9. Rooms for Container Storage and Dispensing
- Subsection 4.2.10. Cabinets for Container Storage
- Subsection 4.2.11. Outdoor Container Storage
- Subsection 4.2.12. Self-Service Storage Buildings

SECTION 4.3 TANK STORAGE

- Subsection 4.3.1. Design, Construction and Use of Storage Tanks
- Subsection 4.3.2. Installation of Outside Aboveground Storage Tanks
- Subsection 4.3.3. Supports, Foundations and Anchorage for Aboveground Storage Tanks
- Subsection 4.3.4. Normal and Emergency Venting for Aboveground Storage Tanks
- Subsection 4.3.5. Vent Piping for Aboveground Storage Tanks

- Subsection 4.3.6. Openings Other than Vents in Aboveground Storage Tanks
- Subsection 4.3.7. Secondary Containment for Aboveground Storage Tanks
- Subsection 4.3.8. Installation of Underground Storage Tanks
- Subsection 4.3.9. Sumps
- Subsection 4.3.10. Corrosion Protection of Underground Steel Storage Tanks
- Subsection 4.3.11. Vents for Underground Storage Tanks
- Subsection 4.3.12. Openings Other than Vents in Underground Storage Tanks
- Subsection 4.3.13. Installation of Storage Tanks inside Buildings
- Subsection 4.3.14. Rooms for Storage Tanks
- Subsection 4.3.15. Openings Other than Vents in Storage Tanks inside Buildings
- Subsection 4.3.16. Out of Service

SECTION 4.4 LEAK DETECTION OF STORAGE TANKS AND PIPING SYSTEMS

- Subsection 4.4.1. General
- Subsection 4.4.2. Leak Detection Testing and Monitoring Methods
- Subsection 4.4.3. Leak Detection Testing of Storage Tanks, Piping Systems and Sumps
- Subsection 4.4.4. Leak Detection Monitoring of Storage Tanks and Piping Systems

SECTION 4.5 PIPING AND TRANSFER SYSTEMS

- Subsection 4.5.1. Scope
- Subsection 4.5.2. Materials for Piping, Valves and Fittings
- Subsection 4.5.3. Corrosion Protection of Piping Systems
- Subsection 4.5.4. Identification of Piping Systems
- Subsection 4.5.5. Joints in Piping Systems

- Subsection 4.5.6. Location and Arrangement of Piping
- Subsection 4.5.7. Valves in Piping Systems
- Subsection 4.5.8. Heating of Piping Systems
- Subsection 4.5.9. Methods of Transfer in Piping Systems
- Subsection 4.5.10. Operating Procedures for Piping Systems

SECTION 4.6 FUEL-DISPENSING STATIONS

- Subsection 4.6.1. Scope
- Subsection 4.6.2. Storage and Handling
- Subsection 4.6.3. Dispensing Systems
- Subsection 4.6.4. Shut-off Devices
- Subsection 4.6.5. Delivery Hose and Nozzles
- Subsection 4.6.6. Remote Pumping Systems
- Subsection 4.6.7. Spill Control
- Subsection 4.6.8. Supervision and Dispensing Procedures
- Subsection 4.6.9. Fire Prevention and Protection

SECTION 4.7 BULK PLANTS

- Subsection 4.7.1. Scope
- Subsection 4.7.2. Storage
- Subsection 4.7.3. Dispensing
- Subsection 4.7.4. Loading and Unloading Facilities
- Subsection 4.7.5. Fire Protection
- Subsection 4.7.6. Spill Control

SECTION 4.8 PIERS AND WHARVES

- Subsection 4.8.1. Scope
- Subsection 4.8.2. General

- Subsection 4.8.3. Storage Tanks
- Subsection 4.8.4. Piping, Valves and Fittings
- Subsection 4.8.5. Bonding and Grounding
- Subsection 4.8.6. Fire Protection
- Subsection 4.8.7. Bulk Transfer Stations
- Subsection 4.8.8. Cargo Hose
- Subsection 4.8.9. Cargo Pumps
- Subsection 4.8.10. Pump Houses
- Subsection 4.8.11. Transfer Operations

SECTION 4.9 PROCESS PLANTS

- Subsection 4.9.1. Scope
- Subsection 4.9.2. Outdoor Processing Equipment
- Subsection 4.9.3. Processing Buildings
- Subsection 4.9.4. Fire Prevention and Protection

SECTION 4.10 DISTILLERIES

- Subsection 4.10.1. Scope
- Subsection 4.10.2. General
- Subsection 4.10.3. Storage Tanks and Containers
- Subsection 4.10.4. Storage
- Subsection 4.10.5. Piping and Pumping Systems
- Subsection 4.10.6. Ventilation
- Subsection 4.10.7. Spill Control
- Subsection 4.10.8. Fire Protection

SECTION 4.11 TANK VEHICLES

- Subsection 4.11.1. Scope
- Subsection 4.11.2. General
- Subsection 4.11.3. Loading, Unloading and Dispensing from Tank Vehicles

SECTION 4.1 GENERAL

Subsection 4.1.1. Scope

Application

4.1.1.1. (1) Except as provided in Sentence (2), this Part applies to the storage, handling, use, processing, dispensing and transfer of

- (a) **flammable liquids** and **combustible liquids** in **buildings**, structures and open areas,
- (b) water-miscible liquid mixtures classified as **flammable liquids** or **combustible liquids** in conformance with Article 4.1.2.2. in buildings, structures and open areas, and
- (c) **dangerous goods** classified as flammable gases at fuel-dispensing stations .

(2) This Part shall not apply to

- (a) the transportation of **flammable liquids** or **combustible liquids** under the **Transportation of Dangerous Goods Regulations**, SOR/2001-286, made under the **Transportation of Dangerous Goods Act (Canada)**,
- (b) **flammable liquids**, **combustible liquids** or **dangerous goods** classified as flammable gases to which the **Technical Standards and Safety Act, 2000** and its regulations apply,
- (c) the storage of **flammable liquids** or **combustible liquids** on farms for individual farm use,
- (d) the storage of aerosol products covered under Subsection 3.2.5.,
- (e) **flammable liquids** or **combustible liquids** at airports, piers and wharves regulated under federal law, or
- (f) underground areas to which the **Occupational Health and Safety Act** and its regulations apply.

(3) RESERVED

(4) In addition to the requirements in this Part, the storage, handling and use of **flammable liquids** and **combustible liquids** in laboratories shall be in conformance with Section 5.5.

(5) Unless otherwise specified, this Section shall apply to all areas involved in the storage, handling or use of **flammable liquids** and **combustible liquids** covered in this Part.

Compliance

4.1.1.2. (1) Areas in **process plants** need not conform to this Part where specific hazards are addressed by design and operational procedures that meet recognized standards and equivalent protection is provided.

(2) **Storage tanks** that are installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Articles 4.3.2.1., 4.3.2.2. and 4.3.2.3. for aboveground **storage tanks** and with Sentence 4.3.8.2.(2) and Article 4.3.8.3. for underground **storage tanks**.

(3) The composition, design, size and arrangement of any material, object, device or thing that was deemed to be in compliance with this Part through an **approved** compliance equivalency on or before December 31, 2025 and that continues to meet the terms of the approval that were in effect on that day is deemed to be in compliance with this Part.

Subsection 4.1.2. Classification

Classification

4.1.2.1. (1) Except as provided in Article 4.1.2.2., for the purposes of this Part, **flammable liquids** and **combustible liquids** shall be classified in conformance with Sentences (2) and (3).

(2) **Flammable liquids** shall be Class I liquids and shall be subdivided into:

- (a) Class IA liquids, which shall include those having a **flash point** below 22.8°C and a boiling point below 37.8°C,
 - (b) Class IB liquids, which shall include those having a **flash point** below 22.8°C and a boiling point at or above 37.8°C, and
 - (c) Class IC liquids, which shall include those having a **flash point** at or above 22.8°C and below 37.8°C.
- (3) **Combustible liquids** shall be Class II or Class IIIA liquids and shall be subdivided into:
- (a) Class II liquids, which shall include those having a **flash point** at or above 37.8°C and below 60°C, and
 - (b) Class IIIA liquids, which shall include those having a **flash point** at or above 60°C and below 93.3°C.

Water-miscible liquid mixtures

4.1.2.2. (1) For the purposes of this Part, mixtures of methanol, ethanol, 2-propanol, acetone or acetic acid and water shall be classified in conformance with Sentences (2) to (6).

- (2) A mixture of methanol and water shall be classified as
 - (a) a Class IB liquid if the concentration of methanol is 90% or more by volume,
 - (b) a Class IC liquid if the concentration of methanol is 30% or more but less than 90% by volume, or
 - (c) a Class II liquid if the concentration of methanol is 20% or more but less than 30% by volume.
- (3) A mixture of ethanol and water shall be classified as
 - (a) a Class IB liquid if the concentration of ethanol is 90% or more by volume,
 - (b) a Class IC liquid if the concentration of ethanol is 30% or more but less than 90% by volume, or
 - (c) a Class II liquid if the concentration of ethanol is 20% or more but less than 30% by volume
- (4) A mixture of 2-propanol and water shall be classified as a Class IC liquid if the concentration of 2-propanol is 20% or more by volume.
- (5) A mixture of acetone and water shall be classified as a Class IB liquid if the concentration of acetone is 5% or more by volume.
- (6) A mixture of acetic acid and water shall be classified as a Class IB liquid if the concentration of acetic acid is 8% or more by volume.

Heated liquids

4.1.2.3. When a liquid having a **flash point** at or above 37.8°C is being processed, stored, handled or used at a temperature at or above its **flash point**, it shall be treated as a Class I liquid.

Used lubricating oil

4.1.2.4. (1) Except as provided in Sentence (2), used lubricating oil drained from motor vehicles shall be classified as a Class IIIA liquid.

- (2) When Class I or II liquids are added to the used oils described in Sentence (1), the resulting mixture shall be classified
- (a) through tests conforming to Subsection 4.1.3., or
 - (b) in the absence of the tests referred to in Clause (a)
 - (i) as a Class IC liquid if Class I liquids are added, or
 - (ii) as a Class II liquid if only Class II liquids are added.

Subsection 4.1.3. Flash Point

Determination of flash point

4.1.3.1. (1) Except as provided in Sentences (3) and (4), the **flash point** of liquids having a kinematic **viscosity** less than 6 cSt at 37.8°C and a **flash point** below 93.3°C shall be determined in conformance with ASTM D56, “Standard Test Method for Flash Point by Tag Closed Cup Tester”.

(2) Except as provided in Sentences (3) and (4), the **flash point** of liquids having a kinematic **viscosity** of 6 cSt or more at 37.8°C or a **flash point** of 93.3°C or higher shall be determined in conformance with ASTM D93, “Standard Test Method for Flash Point by Pensky-Martens Closed Cup Tester”.

(3) ASTM D3828, “Standard for Flash Point by Small Scale Closed Cup Tester”, is permitted to be used for testing aviation turbine fuels within the scope of this procedure.

(4) ASTM D3278, “Standard Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus”, is permitted to be used for paints, enamels, lacquers, varnishes and related products and their components having **flash points** between 0°C and 110°C and having a kinematic **viscosity** less than 150 St at 25°C.

Subsection 4.1.4. Electrical Installations

Hazardous locations

4.1.4.1. (1) Where **flammable liquids** or **combustible liquids** are present, electrical equipment shall conform to **Electrical Safety Code** made under the **Electricity Act, 1998** for hazardous locations.

- (2) Where refrigerators are used to store Class I liquids, they shall be designed so that
- (a) electrical equipment located within the storage compartment, within the outer shell, on the door and on the door frame of the refrigerator is in conformance with **Electrical Safety Code** made under the **Electricity Act, 1998** for Class I, Zone 0 or 1 hazardous locations based on the frequency of occurrence and duration of an explosive gaseous atmosphere, and
 - (b) electrical equipment mounted on the outside surface of the refrigerator is
 - (i) in conformance with **Electrical Safety Code** made under the **Electricity Act, 1998** for Class I, Zone 2 hazardous locations, or
 - (ii) located above the top of the storage compartment.

Subsection 4.1.5. Fire Prevention and Protection

Additional fire protection equipment

4.1.5.1. (1) Fire protection equipment shall be provided where there are special hazards related to the use, handling, processing, dispensing, transfer or storage of **flammable liquids** or **combustible liquids**.

(2) Portable extinguishers required in this Part shall be in accordance with Section 6.2.

Ignition sources

4.1.5.2. Unless controlled in a manner that will not create a fire or explosion hazard, a device, operation or activity that produces open flames, sparks or heat shall not be permitted in an area described in Article 4.1.1.1.

Smoking

4.1.5.3. Except for designated safe smoking areas conforming to Subsection 2.4.3., smoking shall not be permitted in areas described in Article 4.1.1.1.

Removal of combustibles

4.1.5.4. (1) Areas described in Article 4.1.1.1. shall be kept clean and free of ground vegetation and accumulations of combustible materials not essential to operations.

(2) Used rags and similar materials contaminated with flammable liquids or combustible liquids shall be stored in receptacles conforming to Article 2.4.1.3.

Emergency planning

4.1.5.5. Emergency planning measures conforming to Section 2.8. shall be provided for all **buildings**, parts of **buildings** and open areas where the quantities of **flammable liquids** and **combustible liquids** exceeds 500 L in total or exceeds 250 L of Class I liquids.

Access for firefighting

4.1.5.6. Required aisles and other access paths shall be maintained to permit the unobstructed movement of persons and **fire department** apparatus so that firefighting operations can be carried out in any part of an area used for the storage, use or handling of **flammable liquids** or **combustible liquids**.

Hot works

4.1.5.7. Hot works shall be performed in conformance with Section 5.17.

Basement storage

4.1.5.8. (1) Except as permitted in Sentences (2) and (3), in **dwelling units** as described in Article 4.2.4.5. and in **mercantile occupancies** as described in Sentence 4.2.5.3.(3), Class I liquids shall not be stored, handled or used in **basements** or pits.

(2) Up to 10 L of Class I liquid is permitted to be stored in **basements**, provided it is stored in safety containers conforming to ULC/ORD-C30, "Safety Containers".

(3) Laboratories in basements may store, handle or use **flammable liquids** and **combustible liquids** if the laboratories meet the requirements of Article 5.5.6.2.

Maintenance

4.1.5.9. Maintenance of any equipment involved in the storage, handling, use, processing, dispensing and transfer of **flammable liquids** or **combustible liquids**, whose failure would significantly increase the fire or explosion hazard and whose maintenance requirements are not addressed in another Part of this Code shall be maintained in accordance with its **listed** requirements and if not **listed**, be maintained in accordance with the manufacturer's recommendations or good engineering practice.

Subsection 4.1.6. Spill Control and Drainage Systems

Spill control

4.1.6.1. (1) Except as permitted in Sentence (3), a spill of **flammable liquids** or **combustible liquids** shall be prevented from flowing outside the spill area and from reaching waterways, sewer systems and potable water sources by

- (a) constructing a noncombustible barrier capable of containing the spill, or
- (b) grading the site or sloping the floor to divert the spill to a drainage system conforming to Article 4.1.6.2.

(2) When barriers required in Sentence (1) are provided to contain accidental spillage from aboveground **storage tanks**, they shall conform to the requirements for secondary containment in Subsection 4.3.7.

(3) Water-miscible effluent from spills and firefighting operations is permitted to be directed into a sewer system provided it does not create a fire hazard or any risk to public health or safety.

(4) Aboveground **storage tanks** shall be provided with a spill containment device as required by Sentences 4.3.6.4.(4) and 4.3.15.1.(3).

Drainage systems

4.1.6.2. (1) A drainage system referred to in Clause 4.1.6.1.(1)(b) shall

- (a) terminate at a location where such spill will not create a fire hazard or any risk to public health or safety or the natural environment, and
- (b) direct the spill away from the areas identified in Article 2.8.2.7.

(2) Closed drainage systems shall be equipped with a trap.

Spills and leaks

4.1.6.3. (1) Maintenance and operating procedures shall be established to prevent the escape of **flammable liquids** or **combustible liquids** to areas where they could create a fire or explosion hazard.

(2) Except as provided in Sentence (3), all reasonable steps shall be taken to recover escaped liquid and to remove or treat contaminated soil, surface water, ground water or aquatic sediments.

(3) Spilled or leaked **flammable liquids** or **combustible liquids** shall be

- (a) flushed to a location where they will not create a fire or explosion hazard or any risk to public health or safety, or
- (b) neutralized or absorbed and cleaned up with the aid of a product that is compatible and non-reactive with the liquid being cleaned up or a product that conforms to ULC/ORD-C410A, "Absorbents for Flammable and Combustible Liquids" and
 - (i) deposited in a receptacle conforming to Article 2.4.1.3., or
 - (ii) disposed of in a manner that does not create a fire or explosion hazard.

Spill procedure

4.1.6.4. (1) A spill control procedure shall be **approved** and implemented for any **occupancy** where **flammable liquids** or **combustible liquids** are stored, handled, processed or used.

(2) The spill control procedure referred to in Sentence (1) shall include

- (a) suitable operating procedures to prevent leaks and spills from piping, pumps, **storage tanks** or process vessels,
- (b) ventilation,
- (c) control of ignition sources,
- (d) spill containment and cleanup (such as dikes and spill control agents such as sand),
- (e) personal protective clothing or equipment that should be used (such as rubber gloves, rubber boots and self-contained breathing apparatus),
- (f) chain of command, including notification of affected agencies and management,
- (g) a preventive maintenance program, and
- (h) training for new and experienced staff.

(3) Spill control procedures shall be prominently posted and maintained where **flammable liquids** or **combustible liquids** are stored, handled, processed or used.

Subsection 4.1.7. Ventilation

Rooms or enclosed spaces

4.1.7.1. Where **flammable liquids** and **combustible liquids** are processed, handled, stored, dispensed, transferred or used within rooms or enclosed spaces, ventilation shall conform to this Part and the **Building Code**.

Ventilation measures

4.1.7.2. (1) Except as permitted in Sentence (2), a room or enclosed space referred to in Article 4.1.7.1. shall be provided with one of the following ventilation systems:

- (a) continuous mechanical ventilation where Class I liquids are processed, dispensed or used in a manner that releases flammable vapours into the room or enclosed space, or
- (b) either natural or continuous mechanical ventilation where
 - (i) Class I liquids are stored, processed, dispensed or used in a manner that does not release flammable vapours into the room or enclosed space, or
 - (ii) Class II liquids are processed, dispensed or used.

(2) Ventilation referred to in Clause (1)(b) need not be provided for the storage of Class I liquids if

- (a) storage consists of only **closed containers**, and
- (b) no dispensing operations are performed.

(3) Ventilation required in Sentence (1) shall be sufficient to ensure that flammable vapour concentrations outside the zone identified as Class I, Zone 0 or 1 in conformance with Article 4.1.4.1., do not exceed 25% of the **lower explosive limit** of the flammable vapour.

(4) A mechanical ventilation system is deemed to comply with Sentence (3) if it is capable of exhausting at least 18 m³/h/m² of room area, but not less than 250 m³/h.

(5) Where continuous mechanical ventilation is installed in order to meet the conditions of Sentence (1), it shall

- (a) be provided with automatic interlocks so that the activity generating flammable vapours cannot be performed when the ventilation system is not in operation,
- (b) sound an audible alarm in an attended area upon shut-down of the ventilation system, and
- (c) conform to NFPA 91, "Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids".

Location of air inlets and outlets

4.1.7.3. (1) Ventilation air inlets and outlets within a room or enclosed space referred to in Article 4.1.7.1. shall be arranged so as to provide air movement in all portions of the room to prevent the accumulation of flammable vapours in conformance with Sentence 4.1.7.2.(3).

(2) Inlets and outlets conforming to Sentence (3) or (4) shall be deemed to have met the requirements of Sentence (1).

(3) Where the flammable vapour being removed is heavier than air or as dense as air

- (a) at least one air inlet shall be located at a point near a wall and no higher than 300 mm from the floor, and
- (b) at least one air outlet shall be located near the opposite wall, no higher than 300 mm from the floor.

(4) Where the flammable vapour being removed is lighter than air

- (a) at least one air inlet shall be located at a point near a wall and no lower than 300 mm from the ceiling, and
- (b) at least one air outlet shall be located near the opposite wall, no lower than 300 mm from the ceiling.

Location of mechanical ventilation exhaust air outlets

4.1.7.4. (1) Except as provided in Article 4.1.7.6., the exhaust air outlet from a mechanical ventilation system required in Article 4.1.7.2. shall be

- (a) located outdoors, not less than 3 m from any **building** opening, and
- (b) arranged so that the exhaust air does not discharge toward any unprotected opening within 7.5 m of the discharge point.

Make-up air

4.1.7.5. (1) Make-up air for a natural or mechanical ventilation system shall be taken from a point remote from any exhaust air discharge described in Article 4.1.7.4.

(2) Make-up air for a natural ventilation system shall be taken from a point outside the **building**.

(3) Where make-up air for a mechanical ventilation system is taken from within the **building**, the opening into the room or enclosed space shall be provided with a **fire damper**.

Recirculating ventilation systems

4.1.7.6. (1) Where a mechanical ventilation system is installed in conformance with Article 4.1.7.2., and where exhaust air is recirculated, a fail-safe vapour detection and alarm system shall be provided

- (a) to continuously monitor the flammable vapour concentration in the exhaust air, and
- (b) if the vapour concentration in Clause (a) exceeds 25% of the **lower explosive limit** of the vapour, to
 - (i) sound an alarm in an attended area,
 - (ii) stop the recirculation of air, and
 - (iii) redirect the exhaust air to an outdoor location.

Exclusive use of ducts

4.1.7.7. Ducts used in a ventilation system conforming to Article 4.1.7.2. shall not be used for any other ventilation or exhaust system.

Maintenance

4.1.7.8. All components of the ventilation system shall be kept free of obstructions that may interfere with its operation.

Subsection 4.1.8. Handling of Flammable and Combustible Liquids

Containers and storage tanks

4.1.8.1. (1) Except as provided in Sentence 4.1.8.4.(1), **flammable liquids** and **combustible liquids** shall be kept in containers conforming to Subsection 4.2.3. or in **storage tanks** conforming to Subsection 4.3.1.

(2) Containers and **storage tanks** for **flammable liquids** or **combustible liquids** shall be kept closed when not in use.

(3) Containers and **storage tanks** shall not be filled beyond their safe filling level.

Control of static electric charge

4.1.8.2. (1) When Class I liquids are dispensed from or into a container or a **storage tank**

- (a) all metallic or electrically conducting material in the transfer system shall be electrically bonded and grounded, or
- (b) if the container or tank is made of non-electrically conducting material, measures shall be taken to minimize the potential for static electric charge to develop.

- (2) Except as provided in Sentence (3), when Class I liquids are transferred into a **storage tank** through the top of the tank, the fill pipe shall terminate within 150 mm of the bottom of the tank.
- (3) Sentence (2) shall not apply when
- (a) the **storage tank** vapour space cannot exceed 25% of the **lower explosive limit** or is filled with an inert gas that prevents the ignition of the vapour mixture, or
 - (b) the liquid being transferred has a minimum conductivity that prevents the accumulation of static electricity.
- (4) Fill pipes referred to in Sentence (2) shall be installed in such a way as to minimize vibration of the pipe.

Transfer

- 4.1.8.3. (1) Class I liquids shall be drawn from or transferred into containers or **storage tanks** within a **building**
- (a) through a piping or transfer system conforming to Section 4.5,
 - (b) by means of a pump designed in conformance with good engineering practice on top of the container or **storage tank**, or
 - (c) by gravity through a self-closing valve designed in conformance with good engineering practice.
- (2) Except as provided in Subsection 4.5.9., the transfer of **flammable liquids** or **combustible liquids** by means of pressure applied to a container or **storage tank** shall not be permitted.

Fuel tanks of vehicles

- 4.1.8.4. (1) It is permitted to use movable tanks for dispensing **flammable liquids** or **combustible liquids** into the fuel tanks of vehicles or other motorized equipment provided such movable tanks are used in conformance with the requirements of this Part for **storage tanks**.
- (2) Only enclosed pumping equipment designed in conformance with good engineering practice shall be used to transfer Class I liquids to or from the fuel tanks of vehicles inside **buildings**.

SECTION 4.2 CONTAINER STORAGE AND HANDLING

Subsection 4.2.1. Scope

Application

- 4.2.1.1. (1) Except as provided in Sentence (2), this Section shall apply to the storage, handling and use of **flammable liquids** or **combustible liquids** that are in
- (a) containers conforming to Clauses 4.2.3.1.(1)(a) to (d) having an individual capacity of not more than 230 L,
 - (b) portable tanks conforming to Clause 4.2.3.1.(1)(e) having an individual capacity of not more than 2500 L, or
 - (c) intermediate bulk containers conforming to Clause 4.2.3.1.(1)(a) having an individual capacity of not more than 3000 L.
- (2) Except as otherwise stated in this Code, this Section shall not apply to
- (a) bulk plants covered in Section 4.7, **refineries** covered in Section 4.9 and **distilleries** covered in Section 4.10,
 - (b) liquids in the fuel tank of motors or engines,
 - (c) **distilled beverage alcohol** in **closed containers** when stored in conformance with Part 3,
 - (d) food and pharmaceutical products when in **closed containers** having a capacity of not more than 5 L,

- (e) products containing not more than 50% by volume of water-miscible **flammable liquids** or **combustible liquids** with the remainder of the solution being non-flammable, when in **closed containers** having a capacity of not more than 5 L, or
 - (f) alcohol-based hand sanitizer products that have a capacity of not more than 1.2 L and that are in use.
- (3) Portable tanks having a capacity greater than 2500 L shall be installed in conformance with Section 4.3.
- (4) For the purpose of this Section, **unstable liquids** shall meet the requirements for Class IA liquids.
- (5) Except as otherwise stated, requirements for containers in this Part shall also apply to portable tanks described in Sentence (1).

Subsection 4.2.2. General

Prohibited locations

4.2.2.1. **Flammable liquids** or **combustible liquids** shall not be stored in or adjacent to **exits**, including outdoors, elevators or principal routes that provide **access to exits**.

Storage arrangement and conditions

4.2.2.2. (1) **Flammable liquids** and **combustible liquids** shall be stored in stable piles such that they will not collapse under normal operating conditions.

- (2) **Flammable liquids** and **combustible liquids** shall not be stored in areas where they may be subject to
 - (a) temperature extremes or atmospheric pressure that could cause their containers to become deformed or rupture, or
 - (b) physical impact or temperature extremes that could cause a chemical reaction or chemical instability such that a fire could occur.

Separation from other dangerous goods

4.2.2.3. (1) Except as provided in Sentence (2), **flammable liquids** and **combustible liquids** shall be separated from other **dangerous goods** in conformance with Sections 3.2 and 3.3.

(2) For the purpose of applying Table 3.2.7.6., Class IIIA and B3 liquids shall be treated as **dangerous goods** classified as flammable liquids.

Subsection 4.2.3. Containers and Portable Tanks

Design and construction

4.2.3.1. (1) Except as permitted in Article 4.2.3.3., containers and portable tanks for **flammable liquids** or **combustible liquids** shall be built in conformance with the following:

- (a) the **Transportation of Dangerous Goods Regulations**, SOR/2001-286, made under the **Transportation of Dangerous Goods Act (Canada)**,
- (b) CSA B376-M, "Portable Containers for Gasoline and Other Petroleum Fuels",
- (c) CSA B306-M, "Portable Fuel Tanks for Marine Use",
- (d) ULC/ORD-C30, "Safety Containers", or
- (e) CSA B620, "Highway Tanks and TC Portable Tanks for the Transportation of Dangerous Goods".

Markings or labels

4.2.3.2. (1) Except as provided in Sentence (2) and Article 4.2.3.1., containers for **flammable liquids** or **combustible liquids** shall be distinctly marked or labelled in easily legible type that is in contrast to any other printed matter on the label with a warning to indicate that

- (a) the material in the container is flammable,
 - (b) it should be kept away from heat, sparks and open flames, and
 - (c) it should be kept closed when not in use.
- (2) Markings referred to in Sentence (1) are not required when the container is labelled in conformance with
- (a) the **Transportation of Dangerous Goods Act (Canada)** and its regulations,
 - (b) the **Hazardous Products Act (Canada)** and its regulations, and
 - (c) the **Pest Control Products Act (Canada)** and its regulations.

Other types of containers

4.2.3.3. (1) The storage, handling and use of **flammable liquids** or **combustible liquids** in a container other than one of those listed in Article 4.2.3.1. shall be permitted only if

- (a) the required purity of the liquid would be affected by containers of the types listed in Article 4.2.3.1. or if the liquid would cause the excessive corrosion of those types of containers,
- (b) the container not conforming to Article 4.2.3.1. has a capacity of not more than 1 L if used for Class I liquids and not more than 5 L if used for Class II or IIIA liquids, or
- (c) the container not conforming to Article 4.2.3.1. is a sample container used for quality control purposes or for **testing** by regulatory officials.

Subsection 4.2.4. Assembly and Residential Occupancies

Application

4.2.4.1. This Subsection shall apply to the storage and handling of **flammable liquids** and **combustible liquids** in **buildings** classified as **assembly** or **residential occupancies**, except that it shall not apply to nonresidential schools, universities or colleges covered in Subsection 4.2.6.

Maximum quantities

4.2.4.2. (1) Except as provided in Sentence (4) and in Articles 4.2.4.5. and 4.2.4.6., the maximum quantity of **flammable liquids** or **combustible liquids** stored in a **building** or in a **fire compartment** with a **fire-resistance rating** of at least 1 h shall conform to Sentences (2) and (3).

(2) When a single class of **flammable liquid** or **combustible liquid** is stored in a **building** or in a **fire compartment** with a **fire-resistance rating** of at least 1 h, the total quantity of liquid shall not exceed

- (a) 30 L of Class I liquids,
- (b) 150 L of Class II liquids, or
- (c) 600 L of Class IIIA liquids.

(3) When two or more classes of **flammable liquid** or **combustible liquid** are stored in the same **building** or in a **fire compartment** having a **fire-resistance rating** not less than 1 h, the total quantity permitted for each class of liquid shall be calculated as follows:

$$q_I/30 + q_{II}/150 + q_{IIIA}/600 \leq 1$$

where

- q_I = actual quantity of Class I liquids present, in litres,
- q_{II} = actual quantity of Class II liquids present, in litres, and
- q_{IIIA} = actual quantity of Class IIIA liquids present, in litres.

(4) Quantities of **flammable liquids** or **combustible liquids** exceeding those permitted in Sentence (1) are permitted, provided they are kept

- (a) in storage cabinets conforming to Subsection 4.2.10., except that the total quantity of **flammable liquids** and **combustible liquids** stored in such cabinets shall not exceed the quantity permitted for one cabinet, or

- (b) in a storage room conforming to Subsection 4.2.9. and having no openings that communicate directly with the public portions of the **building**.

Storage cabinets and storage rooms

4.2.4.3. (1) The storage cabinets referred to in Sentence 4.2.4.2.(4) shall not be located above or below the **first storey**.

(2) The location of storage rooms referred to in Sentence 4.2.4.2.(4) of this Code shall conform to Article 3.3.2.16. of Division B of the **Building Code**, as it read on January 1, 2025, and Sentence 3.3.4.3.(4) of Division B of the **Building Code**, as it read on January 1, 2025.

Exterior balconies

4.2.4.4. **Flammable liquids** and **combustible liquids** shall not be stored on exterior balconies.

Dwelling units

4.2.4.5. Not more than 30 L of **flammable liquids** and **combustible liquids**, of which not more than 10 L shall be Class I liquids, are permitted to be stored in each **dwelling unit**.

Attached garages and sheds

4.2.4.6. Not more than 50 L of **flammable liquids** and **combustible liquids**, of which not more than 30 L shall be Class I liquids, are permitted to be stored in a garage or shed attached to a **dwelling unit**.

Subsection 4.2.5. Mercantile Occupancies

Application

4.2.5.1. This Subsection applies to the storage and handling of flammable liquids and combustible liquids in mercantile occupancies.

Maximum quantities

4.2.5.2. (1) Except as provided in Sentence (5), the quantities of **flammable liquids** and **combustible liquids** stored in **mercantile occupancies** shall not exceed those in Sentences (2) to (4).

(2) In **mercantile occupancies** that are not **sprinklered**, the maximum quantity of **flammable liquids** and **combustible liquids** permitted to be stored in a single **suite** shall be the lesser of

- (a) 8 L/m² of the total area of the **suite**, provided that not more than 2 L/m² are Class I liquids, of which not more than 0.3 L/m² shall be Class IA, Class IB or any combination of these two classes, or
- (b) 8000 L, provided that not more than 2000 L are Class I liquids, of which not more than 300 L shall be Class IA, Class IB or any combination of these two classes.

(3) In **sprinklered mercantile occupancies**, the maximum quantity of **flammable liquids** and **combustible liquids** permitted to be stored in a single **suite** shall be the lesser of

- (a) 24 L/m² of the total area of the **suite**, provided that not more than 6 L/m² are Class I liquids, of which not more than 1 L/m² shall be Class IA, Class IB or any combination of these two classes, or
- (b) 24000 L, provided that not more than 6000 L are Class I liquids, of which not more than 1000 L shall be Class IA, Class IB or any combination of these two classes.

(4) For the purposes of calculating permissible quantities in Sentences (2) and (3), **mercantile occupancies** of less than 250 m² **floor area** shall be assumed to be 250 m² in area.

(5) Quantities of **flammable liquids** and **combustible liquids** in excess of those permitted in Sentences (2) to (4) shall be kept in a storage area conforming to Subsection 4.2.7.

Containers

4.2.5.3. (1) **Flammable liquids** and **combustible liquids** in **mercantile occupancies** shall be kept in **closed containers**.

(2) **Closed containers** of Class I and II liquids shall not be stacked more than 1.5 m high on floors or 1 m high on individual fixed shelves.

(3) Class I liquids in **closed containers** are permitted to be stored in **basements** of **mercantile occupancies**.

Transfer

4.2.5.4. (1) Except as permitted in Sentence (2), in **mercantile occupancies**, the transfer of **flammable liquids** or **combustible liquids** from or into containers shall only be permitted in a storage room conforming to Subsection 4.2.9.

(2) Tinting operations involving paint containers not exceeding 25 L in capacity may be carried out in **mercantile occupancies** outside of a storage room conforming to Subsection 4.2.9.

Subsection 4.2.6. Business and Personal Services, Educational, Care, Care and Treatment and Detention Occupancies

Application

4.2.6.1. This Subsection shall apply to the storage, handling and use of **flammable liquids** and **combustible liquids** in **business and personal services, care, care and treatment** or **detention occupancies** and shall include nonresidential schools, universities and colleges.

Storage cabinets and storage rooms

4.2.6.2. (1) Except as permitted in Article 4.2.6.3., **flammable liquids** and **combustible liquids** shall be kept in **closed containers** and stored

- (a) in cabinets conforming to Subsection 4.2.10., except that the total quantity of **flammable liquids** and **combustible liquids** stored in such cabinets shall not exceed the quantity permitted for one cabinet, or
- (b) in a room having no openings communicating directly with the public portions of the **building** and conforming to Subsection 4.2.9.

Maximum quantities

4.2.6.3. (1) Except as provided in Sentence (2), the storage of **flammable liquids** and **combustible liquids** outside of a cabinet or storage room required in Article 4.2.6.2. is permitted, provided such storage does not exceed

- (a) 10 L, including not more than 5 L of Class I liquids, in a single room, or
- (b) 250 L, including not more than 60 L of Class II liquids or 10 L of Class I liquids, in a single **fire compartment** with a **fire-resistance rating** of at least 45 min.

(2) In the automotive shops or industrial arts area of an educational facility, storage of up to 75 L of **flammable liquids** and **combustible liquids**, including not more than 25 L of Class I liquids, shall be permitted outside of a cabinet or storage room as required in Article 4.2.6.2.

Containers

4.2.6.4. Where individual containers with a capacity of more than 5 L are required for storage of **flammable liquids** or **combustible liquids** in a **building**, safety containers of not more than 25 L capacity conforming to ULC/ORD-C30, “Safety Containers”, shall be used.

Separation of dangerous goods

4.2.6.5. **Flammable liquids** or **combustible liquids** stored in cabinets or storage rooms shall be separated from other **dangerous goods** in conformance with Article 4.2.2.3.

Subsection 4.2.7. Industrial Occupancies*Application*

4.2.7.1. Except as provided in Subsection 4.2.12. regarding **self-service storage buildings**, this Subsection applies to the storage, handling and use of **flammable liquids** and **combustible liquids** in closed containers in **industrial occupancies** where storage in **closed containers** is the principal activity.

Storage facilities

- 4.2.7.2. (1) In **industrial occupancies**, **flammable liquids** and **combustible liquids** shall be stored
- (a) in storage areas conforming to Article 4.2.7.5.,
 - (b) in conformance with Subsection 4.2.8.,
 - (c) in rooms conforming to Subsection 4.2.9., or
 - (d) in cabinets conforming to Subsection 4.2.10.

Fire compartments

4.2.7.3. **Fire compartments** regulated by this Subsection shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** of at least 2 h.

Dispensing and transfer

4.2.7.4. (1) Except as permitted in Subsection 4.2.8. and in Sentence (2), the dispensing or transfer of Class I or II liquids shall be conducted in rooms conforming to Subsection 4.2.9.

(2) It is permitted to dispense or transfer Class I or II liquids in a storage area conforming to Article 4.2.7.5. provided

- (a) the storage area does not exceed 100 m², and
- (b) the dispensing or transfer operations conform to the applicable requirements of Subsection 4.2.9.

Maximum quantities

4.2.7.5. (1) Except as provided in Sentences (2) and (3), the storage of **flammable liquids** and **combustible liquids** in storage areas specified in Clause 4.2.7.2.(1)(a) shall

- (a) conform to Table 4.2.7.5.A.
 - (i) where it consists of palletized or solid piled storage, or
 - (ii) where stored in **racks** in **buildings** not protected in conformance with Article 4.2.7.6., or
- (b) conform to Table 4.2.7.5.B. where stored in **racks** in **buildings** protected in conformance with Article 4.2.7.7.

(2) Where a **building** or part of **building** is designed for the storage of **flammable liquids** or **combustible liquids**, there is no limit on the total quantity of storage per **fire compartment** provided the **building** or part of **building** is separated from adjacent **buildings** or parts of **buildings** by

- (a) a **firewall** having a **fire-resistance rating** of at least 4 h, or
- (b) spatial separation in conformance with the **Building Code**.

- (3) The quantities in each **individual storage area** shall not exceed the quantities specified in
- (a) Table 4.2.7.5.A. for palletized or solid pile storage or unprotected rack storage, or
 - (b) Table 4.2.7.5.B. for protected **rack** storage.
- (4) Where containers for two or more liquids having different **flash points** are stored together in a single **individual storage area**, the maximum quantity permitted in the **individual storage area** shall equal that permitted for the liquid with the lowest **flash point**.
- (5) When **flammable liquids** or **combustible liquids** are stored in solid pile or **rack** storage configurations or a combination of both in a single **fire compartment**, the maximum quantity permitted for each class of liquid shall be calculated as follows :

$$\frac{q_{IA}}{Q_{IA}} + \frac{q_{IB}}{Q_{IB}} + \frac{q_{IC}}{Q_{IC}} + \frac{q_{II}}{Q_{II}} + \frac{q_{IIIA}}{Q_{IIIA}})_{Rack} + \frac{q_{IA}}{Q_{IA}} + \frac{q_{IB}}{Q_{IB}} + \frac{q_{IC}}{Q_{IC}} + \frac{q_{II}}{Q_{II}} + \frac{q_{IIIA}}{Q_{IIIA}})_{Solid Pile} \leq 1$$

where

- $q_{IA, IB \text{ or } IC}$ = actual quantity of Class IA, IB or IC liquids present in a **rack** or solid pile, in litres,
- q_{II} = actual quantity of Class II liquids present in a **rack** or solid pile, in litres,
- q_{IIIA} = actual quantity of Class IIIA liquids present in a **rack** or solid pile, in litres,
- $Q_{IA, IB, IC}$ = maximum quantity of Class IA, IB or IC liquids permitted in Table 4.2.7.5.A. or Table 4.2.7.5.B. for the arrangement, in litres,
- Q_{II} = maximum quantity of Class II liquids permitted in Table 4.2.7.5.A. or Table 4.2.7.5.B. for the arrangement, in litres, and
- Q_{IIIA} = maximum quantity of Class IIIA liquids permitted in Table 4.2.7.5.A. or Table 4.2.7.5.B. for the arrangement, in litres.

TABLE 4.2.7.5.A.

Indoor Container Storage (Palletized or Solid Piled Storage and Unprotected **Rack** Storage)
Forming Part of Article 4.2.7.5.

Class of Liquid	Storage Level	Protected Storage ⁽¹⁾ - Maximum Quantity per Individual Storage Area , L	Protected Storage ⁽¹⁾ -Maximum Storage Height, m	Protected Storage ⁽¹⁾ - Maximum Quantity per Fire Compartment , L	Unprotected Storage - Maximum Quantity per Individual Storage Area , L	Unprotected Storage - Maximum Storage Height, m	Unprotected Storage - Maximum Quantity per Fire Compartment , L
Class IA	First storey	10000	1.5	50000	2500	1.5	2500
Class IA	Storeys above the first storey	7500	1.5	30000	2500	1.5	2500
Class IA	Basement	Not permitted	Not permitted	Not permitted	Not permitted	Not permitted	Not permitted
Class IB or IC	First storey	20000	2.0	60000	10000	1.5	10000
Class IB or IC	Storeys above the first storey	10000	2.0	50000	10000	1.5	10000

TABLE 4.2.7.5.A.

(continued)

Class of Liquid	Storage Level	Protected Storage ⁽¹⁾ - Maximum Quantity per Individual Storage Area , L	Protected Storage ⁽¹⁾ - Maximum Storage Height, m	Protected Storage ⁽¹⁾ - Maximum Quantity per Fire Compartment , L	Unprotected Storage - Maximum Quantity per Individual Storage Area , L	Unprotected Storage - Maximum Storage Height, m	Unprotected Storage - Maximum Quantity per Fire Compartment , L
Class IB or IC	Basement	Not permitted	Not permitted	Not permitted	Not permitted	Not permitted	Not permitted
Class II	First storey and storeys above the first storey	40000	3.0	100000	15000	3.0	30000
Class II	Basement	25000	1.5	25000	Not permitted	Not permitted	Not permitted
Class IIIA	First storey and storeys above the first storey	60000	6.0	200000	50000	4.5	100000
Class IIIA	Basement	40000	3.0	100000	Not permitted	Not permitted	Not permitted

Notes to Table 4.2.7.5.A.:⁽¹⁾ See Article 4.2.7.6.

TABLE 4.2.7.5.B.

Indoor Container Storage (Protected **Rack** Storage)⁽¹⁾
Forming Part of Article 4.2.7.5.

Class of Liquid	Storage Level	Maximum Storage Height, m	Maximum Quantity per Individual Storage Area and per Fire Compartment , L
Class IA	First storey	7.5	30000
Class IA	Storeys above first storey	4.5	17000
Class IA	Basement	Not permitted	Not permitted
Class IB or IC	First storey	7.5	60000
Class IB or IC	Storeys above first storey	4.5	35000
Class IB or IC	Basement	Not permitted	Not permitted
Class II	First storey	7.5	100000

TABLE 4.2.7.5.B.
(continued)

Class of Liquid	Storage Level	Maximum Storage Height, m	Maximum Quantity per Individual Storage Area and per Fire Compartment, L
Class II	Storeys above first storey	7.5	100000
Class II	Basement	4.5	35000
Class IIIA	First storey	12.0	200000
Class IIIA	Storeys above first storey	6.0	200000
Class IIIA	Basement	6.0	100000

Notes to Table 4.2.7.5.B.:

⁽¹⁾ See Article 4.2.7.6.

Fire suppression systems

4.2.7.6. (1) Where protection is required by this Code, storage areas for **flammable liquids** and **combustible liquids** shall be

- (a) **sprinklered** in conformance with NFPA 30, “Flammable and Combustible Liquids Code”, or
- (b) protected by an automatic fire suppression system in conformance with an applicable standard set out in Article 2.1.3.5.

Clearances

4.2.7.7. (1) The clearance between the top of storage and the lowest structural members shall not be less than 450 mm.

(2) The clearance between the top of storage and the ceiling sprinkler deflectors or other overhead fire protection systems shall be in accordance with the standard used for the design of the respective system.

(3) A clearance of not less than 400 mm shall be maintained between stored **flammable liquids** and **combustible liquids** and walls, except that where the width of storage adjacent to the wall is not more than 1.5 m, such wall clearance is not required.

Aisles

4.2.7.8. Except as provided in Article 4.2.7.9., main aisles, access aisles and aisles defining **individual storage areas** shall be in conformance with Articles 3.2.2.5. and 3.2.2.6.

Separation from other dangerous goods

4.2.7.9. **Flammable liquids** and **combustible liquids** shall not be stored with other **dangerous goods** unless in conformance with Article 4.2.2.3.

Separation from combustible products

4.2.7.10. Combustible materials, other than those used for the packaging of **flammable liquids** or **combustible liquids**, shall not be stored in the same **individual storage area** with such liquids.

Absorbents

4.2.7.11. Absorbent materials shall be available in the storage area for use in clean-up of spilled **flammable liquids** or **combustible liquids** in conformance with Article 4.1.6.3.

Ventilation

4.2.7.12. Storage areas described in Article 4.2.7.1. shall be ventilated in conformance with Subsection 4.1.7.

Subsection 4.2.8. Incidental Use*Application*

4.2.8.1. Except as otherwise noted in this Part, this Subsection applies to **industrial occupancies** where the use, storage and handling of **flammable liquids** or **combustible liquids** is secondary to the principal activity.

Maximum quantities

4.2.8.2. (1) Except as provided in Sentences (2) and (3) and in Article 4.2.8.4., the quantity of **flammable liquids** and **combustible liquids** permitted to be located outside of storage rooms conforming to Subsection 4.2.7., 4.2.9. or 4.3.14., or storage cabinets conforming to Subsection 4.2.10., in any one **fire compartment** of a **building**, shall not be more than

- (a) 600 L of **flammable liquids** and **combustible liquids** in **closed containers**, of which not more than 100 L shall be Class IA liquids, and
- (b) 5000 L of Class IB, IC, II and IIIA liquids in **storage tanks** or portable tanks.

(2) Where required for normal plant activity, quantities of **flammable liquids** and **combustible liquids** are permitted to exceed those specified in Sentence (1), but shall not be greater than the supply for one day of normal operation.

(3) Where larger quantities than those permitted by Sentence (2) are required, such quantities shall be in **storage tanks** installed in conformance with Sentence 4.3.13.4.(2).

Handling

4.2.8.3. (1) Areas in which **flammable liquids** or **combustible liquids** are transferred from one container or **storage tank** to another, or where they are used in such a way as to release potentially explosive concentrations of flammable vapours, shall be

- (a) separated from possible sources of ignition by a spatial separation of not less than 6 m or by a **fire separation**,
- (b) provided with a drainage system to control spills in conformance with Subsection 4.1.6.,
- (c) provided with absorbent materials to assist in clean-up of small liquid spills in conformance with Article 4.1.6.3.,
- (d) provided with either natural or mechanical ventilation in conformance with Subsection 4.1.7., and
- (e) separated from other **dangerous goods** in conformance with Article 4.2.2.3.

General storage areas

4.2.8.4. (1) In a general storage area covered in Subsection 3.2.2., quantities of **flammable liquids** and **combustible liquids** are permitted to exceed those in Sentence 4.2.8.2.(1) provided the storage area is in conformance with Sentences (2) to (6).

(2) The storage area referred to in Sentence (1) shall be **sprinklered** in conformance with NFPA 13, "Standard for the Installation of Sprinkler Systems", providing a level of protection not less than that required for Class IV commodities stored up to a height of 6 m.

(3) The height of storage of **flammable liquids** and **combustible liquids** shall be not more than that permitted for unprotected storage in Table 4.2.7.5.A.

(4) When a single class of liquid is stored, the total quantity in a single **fire compartment** shall be not more than

- (a) 2500 L of Class IB and IC liquids,
- (b) 5000 L of Class II liquids, or
- (c) 10000 L of Class IIIA liquids.

(5) When two or more classes of liquid are stored in the same **fire compartment**, the total quantity permitted for each class of liquid shall be calculated as follows :

$$(q_I/2500) + (q_{II}/5000) + (q_{IIIA}/10000) \leq 1$$

where

- q_I = actual quantity of Class IB and IC liquids present, in litres,
- q_{II} = actual quantity of Class II liquids present, in litres, and
- q_{IIIA} = actual quantity of Class IIIA liquids present, in litres.

(6) When two or more classes of liquid are stored in the same **individual storage area**, the maximum quantity permitted in the **individual storage area** shall be that permitted for the liquid with the lowest limit listed in Sentence (4).

Subsection 4.2.9. Rooms for Container Storage and Dispensing

Maximum quantities

4.2.9.1. (1) Except as provided in Sentences (2) and (3), where **flammable liquids** and **combustible liquids** are stored in a room required in this Part, the storage densities averaged over the total room area and the total quantities of such liquids shall conform to Table 4.2.9.1.

(2) The maximum quantities and densities of **flammable liquids** and **combustible liquids** shown in Table 4.2.9.1. are permitted to be doubled provided the storage room is protected by an automatic fire suppression system conforming to Article 4.2.7.6.

(3) The maximum quantities of Class I liquids in an unprotected storage room with a **fire separation** having a **fire-resistance rating** of not less than 2 h shall

- (a) not exceed those specified for unprotected storage in Table 4.2.7.5.A., and
- (b) comply with Sentences 4.2.7.5.(4) and (5).

TABLE 4.2.9.1.

Rooms for Container Storage and Dispensing
Forming Part of Article 4.2.9.1.

Maximum Quantity, L	Minimum Fire Separation Around Room, h	Maximum Density, L/m ²
10000	2	200
1500	1	100

Spill control

4.2.9.2. (1) Storage rooms referred to in Article 4.2.9.1. shall be liquid-tight where the walls join the floor and shall be equipped with a liquid-tight ramped sill at any door opening in an interior wall.

(2) Storage rooms referred to in Sentence (1) shall be designed to accommodate possible spills of **flammable liquids** and **combustible liquids** in conformance with Subsection 4.1.6.

Aisles

4.2.9.3. The contents of **flammable liquid** and **combustible liquid** storage rooms referred to in Article 4.2.9.1. shall be arranged to provide aisle widths of not less than 1 m.

Dispensing

4.2.9.4. Dispensing of **flammable liquids** or **combustible liquids** from containers having a capacity of more than 30 L shall be by pumps or through self-closing valves, designed in conformance with good engineering practice.

Explosion venting

4.2.9.5. Except for the storage of **distilled beverage alcohol**, where Class IA or IB liquids are used, dispensed or stored in open containers within a storage room, the room shall be designed to prevent critical structural and mechanical damage from an internal explosion in conformance with NFPA 68, “Standard on Explosion Protection by Deflagration Venting”.

Ventilation

4.2.9.6. Storage rooms referred to in Article 4.2.9.1. shall be ventilated in conformance with Subsection 4.1.7.

Portable extinguishers

4.2.9.7. Portable extinguishers shall be provided for storage rooms described in Article 4.2.9.1. in conformance with Section 6.2.

Subsection 4.2.10. Cabinets for Container Storage

Containers

4.2.10.1. **Flammable liquids** and **combustible liquids** stored in cabinets required in this Part shall be in **closed containers** conforming to Article 4.2.3.1.

Maximum quantity per cabinet

4.2.10.2. The maximum quantity of **flammable liquids** and **combustible liquids** stored in a cabinet shall be 500 L.

Maximum quantity per fire compartment

4.2.10.3. (1) Except as provided in Sentences (2) and (3), the total quantity of **flammable liquids** and **combustible liquids** stored in cabinets in a single **fire compartment** shall not exceed the quantity permitted in Article 4.2.10.2. for three cabinets.

(2) In **industrial occupancies**, quantities of **flammable liquids** and **combustible liquids** greater than those specified in Sentence (1) are permitted in a single **fire compartment** if

- (a) the total quantity stored in a group of cabinets is not more than the quantity permitted for three cabinets, and
- (b) the distance between groups of cabinets described in Clause (a) is not less than 30 m.

(3) In **care, care and treatment** 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.

Labelling

4.2.10.4. Cabinets for container storage shall be labelled in conspicuous lettering to indicate that the cabinet contains flammable materials and that open flames must be kept away.

Fire endurance

4.2.10.5. (1) Storage cabinets required in this Part shall conform to ULC/ORD-C1275, “Guide for the Investigation of Storage Cabinets for Flammable Liquid Containers”.

(2) Storage cabinets that are installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Sentence (1).

Ventilation

4.2.10.6. (1) When a storage cabinet required in this Part is provided with ventilation openings

- (a) the ventilation openings shall be sealed with materials providing a fire protection at least equivalent to that required for the construction of the cabinet, or
- (b) the cabinet shall be vented outdoors using vent piping providing a fire protection at least equivalent to that required in Clause (a) for seals.

Subsection 4.2.11. Outdoor Container Storage***Quantities and clearances***

4.2.11.1. (1) Except as provided in Sentence (2), the quantities and clearances for **flammable liquids** and **combustible liquids** stored in containers in outdoor storage areas shall conform to Table 4.2.11.1.

(2) The clearances required in Sentence (1) do not apply where not more than 5000 L of **flammable liquids** or **combustible liquids** are stored adjacent to a **building** on the same property, provided that either

- (a) the **building** is limited to 1 **storey** in **building height** and is used primarily for the storage or handling of **flammable liquids** or **combustible liquids**, or
- (b) the exposed wall has a **fire-resistance rating** of at least 2 h and has no openings within 3 m of such outdoor storage.

TABLE 4.2.11.1.

Outdoor Container Storage Forming Part of Article 4.2.11.1.

Class of Liquid	Maximum Total Quantity per Pile, L	Minimum Distance between Piles, m	Minimum Distance to a Property Line or to a Building on the Same Property, m
Class IA	5000	1.5	6
Class IB or IC	15000	1.5	6
Class II	35000	1.5	6
Class IIIA	85000	1.5	6

Mixed storage

4.2.11.2. Where two or more liquids with different **flash points** are stored outdoors in containers that form a single pile, the maximum total quantity permitted in the pile shall be equal to that permitted for the liquid with the lowest **flash point**.

Fire department access

4.2.11.3. An access route not less than 6 m wide constructed in conformance with Subsection 3.2.5. of Division B of the **Building Code** shall be provided in outdoor storage areas to permit the approach of **fire department** vehicles to within 60 m of any part of a pile.

Spill control

4.2.11.4. Outdoor storage areas for **flammable liquids** or **combustible liquids** shall be designed to accommodate possible spillage in conformance with Subsection 4.1.6.

Fencing

4.2.11.5. (1) An outdoor area used for the container storage of **flammable liquids** or **combustible liquids** shall be surrounded by a firmly anchored fence that is

- (a) substantially constructed to discourage climbing and unauthorized entry,
- (b) not less than 1.8 m high, and
- (c) provided with gates that shall be locked when the storage area is not staffed.

(2) When in a **fire department** access route, the gates required in Clause (1)(c) shall be of adequate width and design, and in a location that readily permits the entry of **fire department** vehicles.

(3) Fencing that is installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continues to meet those requirements is deemed to comply with Sentence (2).

Subsection 4.2.12. Self-Service Storage Buildings

Application

4.2.12.1. This Subsection applies to the storage and handling of **flammable liquids** and **combustible liquids** in **self-service storage buildings** within the scope of Section 3.10 of Division B of the **Building Code**.

Maximum quantities

4.2.12.2. Not more than 50 L of **flammable liquids** and **combustible liquids**, of which not more than 30 L shall be Class I liquids, are permitted to be stored in individual self-service storage units within a **self-service storage building**.

Dispensing and handling

4.2.12.3. Except within a dwelling unit, the dispensing and handling of **flammable liquids** and **combustible liquids** shall not be permitted within **self-service storage buildings**.

SECTION 4.3 TANK STORAGE

Subsection 4.3.1. Design, Construction and Use of Storage Tanks

Application

4.3.1.1. This Section applies to **storage tanks** for **flammable liquids** and **combustible liquids**.

Atmospheric storage tanks

4.3.1.2. (1) Except as permitted in Sentences (3) and (5) and in Section 4.10, **atmospheric storage tanks** shall be built in conformance with the following:

- (a) except as provided in Sentence (2), API SPEC 12B, "Specification for Bolted Tanks for Storage of Production Liquids",
- (b) except as provided in Sentence (2), API SPEC 12D, "Specification for Field Welded Tanks for Storage of Production Liquids",

- (c) except as provided in Sentence (2), API SPEC 12F, “Specification for Shop Welded Tanks for Storage of Production Liquids”,
 - (d) API STD 650, “Welded Tanks for Oil Storage”,
 - (e) CAN/ULC-S601, “Standard for Shop Fabricated Steel Aboveground Tanks for Flammable and Combustible Liquids”,
 - (f) CAN/ULC-S602, “Standard for Steel Aboveground Tanks for Fuel Oil and Lubricating Oil”,
 - (g) CAN/ULC-S603, “Standard for Steel Underground Tanks for Flammable and Combustible Liquids”,
 - (h) CAN/ULC-S603.1, “Standard for External Corrosion Protection Systems for Steel Underground Tanks for Flammable and Combustible Liquids”,
 - (i) CAN/ULC-S615, “Standard for Fibre Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids”,
 - (j) CAN/ULC-S652, “Standard for Tank Assemblies for the Collection, Storage and Removal of Used Oil”,
 - (k) CAN/ULC-S653, “Aboveground Steel Contained Tank Assemblies for Flammable and Combustible Liquids”,
 - (l) ULC-S655, “Aboveground Protected Tank Assemblies for Flammable and Combustible Liquids”,
 - (m) CAN/ULC-S677, “Standard for Fire Tested Aboveground Tank Assemblies for Flammable and Combustible Liquids”, or
 - (n) ANSI/CAN/UL/ULC 2258, “Standard for Aboveground Nonmetallic Tanks for Fuel Oil and Other Combustible Liquids”.
- (2) Tanks built in conformance with Clause (1)(a), (b) or (c) shall be
- (a) used only for the storage of crude petroleum and oil field production liquids, and
 - (b) provided with emergency venting that
 - (i) conforms to API STD 2000, “Venting Atmospheric and Low-Pressure Storage Tanks”, and
 - (ii) is compatible with the design features of the tank.
- (3) When necessitated by possible contamination of the liquid to be stored or possible rapid corrosion of the tank, **storage tanks** need not conform to Sentence (1), provided that they are designed and built in conformance with good engineering practice for the material being used.
- (4) **Atmospheric storage tanks** shall not be used for the storage of **flammable liquids** or **combustible liquids** at temperatures at or above their boiling points.
- (5) **Atmospheric storage tanks** that are installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Sentence (1).

Low pressure storage tanks and pressure vessels

- 4.3.1.3. (1) **Low pressure storage tanks** shall be constructed in conformance with
- (a) API STD 620, “Design and Construction of Large, Welded, Low-Pressure Storage Tanks”, or
 - (b) ASME BPVC, “Boiler and Pressure Vessel Code”.
- (2) **Pressure vessels** shall be constructed in conformance with CSA B51, “Boiler, Pressure Vessel and Pressure Piping Code”.
- (3) **Low pressure storage tanks** and **pressure vessels** are permitted to be used as **atmospheric storage tanks**.

Operating pressure

- 4.3.1.4. The normal operating pressure of a **storage tank** shall not exceed its design pressure.

Corrosion protection

4.3.1.5. Aboveground **storage tanks** and their integral fittings that are subject to corrosion shall be protected by any means against exposure to conditions that would initiate corrosion.

Floating roofs

4.3.1.6. Except for perimeter sealing material, floating roof assemblies or internal floating covers installed in **storage tanks** shall be constructed of metal or other materials and designed in conformance with one of the tank construction standards listed in this Subsection.

Identification

4.3.1.7. (1) A **storage tank** and its filling and emptying connections shall be identified in conformance with CFA 1990, "Using the Canadian Fuels Colour-Symbol System to Mark Equipment and Vehicles for Product Identification".

(2) A **storage tank** and its filling and emptying connections that were identified in conformance with the requirements of this Code on or before December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Sentence (1).

Overfill protection

4.3.1.8. (1) Except as required in Sentences (2) and (3), a **storage tank** shall be prevented from being overfilled by providing

- (a) continuous supervision of the filling operations by persons qualified to supervise such operations, or
- (b) an overfill protection device conforming to CAN/ULC-S661, "Standard for Overfill Protection Devices for Flammable and Combustible Liquid Storage Tanks".

(2) Except as provided in Sentence (3), tight-filled aboveground horizontal **storage tanks** and underground **storage tanks** shall be prevented from being overfilled by providing a positive shut-off device conforming to CAN/ULC-S661, "Standard for Overfill Protection Devices for Flammable and Combustible Liquid Storage Tanks".

(3) **Storage tanks** that are filled remotely with used lubricating oil described in Article 4.1.2.4. shall be prevented from being overfilled by providing an overfill protection device in accordance with Clause (1)(b).

(4) **Storage tanks** that are installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Sentences (1), (2) and (3).

Installation and use

4.3.1.9. Unless otherwise specified in this Code, a **storage tank** shall be installed and used in conformance with the applicable installation and use provisions of the design document to which the **storage tank** was built as required by this Section.

Reuse

4.3.1.10. (1) A **storage tank** that has been taken out of service shall not be reused for the storage of **flammable liquids** or **combustible liquids** unless it has been

- (a) refurbished so as to conform to one of the standards listed in Sentence 4.3.1.2.(1),
- (b) refurbished so as to conform to CAN/ULC-S676, "Standard for Refurbishing of Storage Tanks for Flammable and Combustible Liquids", or
- (c) refurbished in conformance with Sentence (2) or (3).

(2) A **storage tank** is permitted to be refurbished for aboveground use in conformance with

- (a) API STD 653, "Tank Inspection, Repair, Alteration, and Reconstruction", and

- (b) STI/SPFA SP031, “Standard for Repair of Shop Fabricated Aboveground Tanks for Storage of Flammable and Combustible Liquids”.

(3) A **storage tank** is permitted to be refurbished for underground use in conformance with CAN/ULC-S669, “Standard for Internal Retrofit Systems for Underground Tanks for Flammable and Combustible Liquids”.

- (4) A riveted **storage tank** shall not be relocated.

(5) A refurbished **storage tank** that is installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, that was refurbished on or before that day and that continues to meet those requirements is deemed to comply with Sentence (1).

Subsection 4.3.2. Installation of Outside Aboveground Storage Tanks

Location

4.3.2.1. (1) Every outside aboveground **storage tank** for the storage of **flammable liquids** or **combustible liquids** shall be located in conformance with Sentences (2) to (5) with respect to a property line or a **building** on the same property.

(2) Except as provided in Sentences (6) and (7), every aboveground **storage tank** containing stable liquids and having a working pressure of not more than 17 kPa (gauge) shall be separated from a property line or a **building** on the same property by distances

- (a) half those in Table 4.3.2.1., where protection is provided against fire or explosion in the tank in conformance with Sentence 4.3.2.5.(2), or
- (b) equal to those in Table 4.3.2.1., where protection referred to in Clause (a) is not provided.

(3) Every aboveground **storage tank** containing **unstable liquids** and having a working pressure of not more than 17 kPa (gauge) shall be separated from a property line or a **building** on the same property by distances

- (a) equal to those in Table 4.3.2.1., but not less than 7.5 m, where protection is provided against fire or explosion in the tank in conformance with Sentence 4.3.2.5.(2), or
- (b) three times those in Table 4.3.2.1., but not less than 15 m, where protection referred to in Clause (a) is not provided.

(4) Every aboveground **storage tank** containing boil-over liquids shall be separated from a property line or a **building** on the same property by distances

- (a) 0.75 times those in Table 4.3.2.1., where protection is provided against fire or explosion in the tank in conformance with Sentence 4.3.2.5.(2), or
- (b) equal to those in Table 4.3.2.1., where protection referred to in Clause (a) is not provided.

(5) Where a **storage tank** containing stable liquids or **unstable liquids** has a working pressure greater than 17 kPa (gauge), the distances from a property line or a **building** on the same property shall be those specified in Sentences (2) and (3) multiplied by 1.5, but shall be not less than 7.5 m.

(6) The minimum distance required in Sentence (2) from a **storage tank** containing only Class II or IIIA liquids to a **building** on the same property is permitted to be reduced to

- (a) 1.5 m provided the tank capacity is not more than 50000 L, or
- (b) zero provided the tank capacity is not more than 2500 L.

(7) The minimum distance required in Sentence (2) is permitted to be waived provided the **storage tank** is in conformance with ULC-S655, “Aboveground Protected Tank Assemblies for Flammable and Combustible Liquids” and has a capacity of not more than 50000 L.

(8) Where end failure of horizontal **storage tanks** may endanger adjacent property, the tanks shall be placed with the longitudinal axis parallel to such property.

TABLE 4.3.2.1.

Location of Aboveground Storage Tanks Forming Part of Article 4.3.2.1.

Maximum Tank Capacity, L	Minimum Distance to a Property Line or to a Building on the Same Property, m
250000	3
500000	4.5
2500000	9
5000000	12
> 5000000	15

Spacing between storage tanks

4.3.2.2. (1) Except as required in Sentences (2) and (3) and in Article 4.3.2.3., the minimum distance between every combination of two aboveground **storage tanks** shall be 0.25 times the sum of their diameters, but shall be not less than 1 m.

(2) The minimum distance between any two **storage tanks**, neither of which has a capacity of more than 250000 L, shall be 1 m.

(3) Where either of two aboveground **storage tanks** contains **unstable liquids**, the distance required in Sentences (1) and (2) shall be doubled.

Clearances from liquefied petroleum gas cylinders and tanks

4.3.2.3. (1) The minimum separation between a **flammable liquid** or **combustible liquid storage tank** and a liquefied petroleum gas cylinder or tank shall be 6 m.

(2) Secondary containments for **flammable liquid** and **combustible liquid storage tanks** shall not contain any liquefied petroleum gas cylinder or tank, and the centre line of the secondary containment wall shall be not less than

- (a) 3 m away from a liquefied petroleum gas cylinder, and
- (b) 6 m away from a liquefied petroleum gas tank.

Fire department access

4.3.2.4. (1) Except as provided in Sentences (2) and (3), **storage tanks** for **flammable liquids** or **combustible liquids** shall be spaced so that each **storage tank** is accessible for firefighting purposes.

(2) An access route constructed in conformance with Subsection 3.2.5. of Division B of the **Building Code** shall be provided in outdoor storage areas to permit the approach of **fire department** vehicles to within 60 m travelling distance of any **storage tank**.

(3) Where firefighting access to **storage tanks** containing Class I or II liquids is not provided, fire extinguishing measures conforming to Sentence 4.3.2.5.(2) shall be provided.

Fire protection systems

4.3.2.5. (1) Where the diameter of a **storage tank** exceeds 45 m, the **storage tank** shall be provided with protection against fires or explosions in conformance with Sentence (2).

(2) Protection against fires or explosions required for a **storage tank** shall consist of fixed protection systems designed in conformance with good engineering practice such as that described in

- (a) NFPA 11, “Standard for Low-, Medium-, and High-Expansion Foam”,
- (b) NFPA 15, “Standard for Water Spray Fixed Systems for Fire Protection”, and
- (c) NFPA 69, “Standard on Explosion Prevention Systems”.

Subsection 4.3.3. Supports, Foundations and Anchorage for Aboveground Storage Tanks

Foundations and supports

4.3.3.1. (1) **Storage tanks** shall rest on the ground or on foundations, supports or piling made of concrete, masonry or steel.

(2) Tank supports shall be installed on firm foundations designed to minimize uneven settling of the tank and to minimize corrosion of the part of the tank resting on the foundation.

(3) Where the clearance below the base of the tank exceeds 300 mm, tank supports shall have a minimum **fire-resistance rating** of 2 h.

(4) Every aboveground **storage tank** shall be supported in a manner that will prevent the allowable design stress of the tank from being exceeded.

Earthquake protection

4.3.3.2. (1) In areas subject to earthquake forces, **storage tanks**, supports and connections shall be designed to resist such forces in conformance with

- (a) Part 4 of Division B of the **Building Code**, and
- (b) Appendix A2 of CAN/ULC-S601, “Shop Fabricated Steel Aboveground Tanks for Flammable and Combustible Liquids”.

Protection against flooding

4.3.3.3. When aboveground **storage tanks** are located in an area that is subject to flooding, the tanks shall be securely anchored to prevent floating.

Subsection 4.3.4. Normal and Emergency Venting for Aboveground Storage Tanks

Design and installation

4.3.4.1. (1) **Atmospheric** and **low pressure storage tanks** shall be provided with normal and emergency venting in conformance with

- (a) API STD 2000, “Venting Atmospheric and Low-Pressure Storage Tanks”, or
- (b) the tank design standards listed in Sentence 4.3.1.2.(1).

Unstable liquids

4.3.4.2. When **unstable liquids** are stored, the effects of heat or gas resulting from polymerization, decomposition, condensation or self-reactivity shall be allowed for in the determination of the total venting capacity.

Subsection 4.3.5. Vent Piping for Aboveground Storage Tanks

Materials and construction

4.3.5.1. Except at **distilleries** covered in Section 4.10., vent piping materials and construction shall conform to Subsections 4.5.2., 4.5.3. and 4.5.5.

Location of vent pipe outlets

- 4.3.5.2. (1) Normal vent pipe outlets for **storage tanks** of Class I liquids
- (a) shall be located outside **buildings** not less than
 - (i) 3.5 m above the adjacent ground level, and
 - (ii) 1.5 m from any **building** opening, and
 - (b) shall discharge so that flammable vapours will not enter the **building** or be trapped near any part of the **building**.
- (2) Normal vent pipe outlets for **storage tanks** of Class II or IIIA liquids shall discharge outside **buildings** not less than
- (a) 2 m above the adjacent ground level, and
 - (b) 1.5 m from any **building** opening.
- (3) Emergency vent outlets for **storage tanks** shall discharge outside **buildings** not less than 1.5 m from any **building** opening and from any combustible component of any **building's** exterior wall.

Interconnection of vent piping

- 4.3.5.3. (1) Except as provided in Sentence (2), two or more **storage tanks** are permitted to be connected to a common vent pipe for normal relief venting provided the vent pipe size is designed to vent the combined vapours produced in the connected tanks without exceeding the allowable stresses of the tanks.
- (2) Vent piping for **storage tanks** for Class I liquids shall not be connected to vent piping for **storage tanks** for Class II or IIIA liquids unless an effective arrangement is provided to prevent the vapours from the Class I liquids from entering the other tanks.

Subsection 4.3.6. Openings Other than Vents in Aboveground Storage Tanks

Provision of valves

- 4.3.6.1. (1) Each connection to an aboveground **storage tank** through which the liquid can normally flow shall be provided with an internal or external shut-off valve located as close as practical to the shell of the tank.
- (2) Each connection to an aboveground **storage tank** that is below the liquid level and through which liquid does not normally flow shall be provided with a liquid-tight closing device.

Materials

- 4.3.6.2. (1) Valves and their connections to a **storage tank** shall be made of steel, except that when the chemical characteristics of the liquid stored are incompatible with steel, materials other than steel are permitted to be used.
- (2) Materials for valves and their connections to a **storage tank** shall be suitable for the pressures, stresses and temperatures that may be expected, including those of possible fire exposure.

Openings for liquid level measurements

4.3.6.3. Openings for measuring liquid levels in **storage tanks** for Class I liquids shall be equipped with caps or covers which shall be opened only when measuring the liquid level.

Connections for filling and emptying

4.3.6.4. (1) Except as provided in Sentence (3), connections used as part of normal operating conditions for filling or emptying **storage tanks** for **flammable liquids** and **combustible liquids** shall be located

- (a) outside **buildings**,
- (b) at a location free of sources of ignition, and
- (c) not less than 1.5 m away from **building** openings.

(2) Connections for filling or emptying **storage tanks** shall be kept closed to prevent leakage when not in use.

(3) A filling connection described in Sentence (1) is permitted to be located inside a **building** if

- (a) this is made necessary
 - (i) by a process or activity located indoors and to which the tank is directly associated, or
 - (ii) for the collection of used liquids, and
- (b) the fill piping is provided with means to prevent flammable vapours from returning to the **building**.

(4) Connections for filling or emptying **storage tanks** shall be provided with a spill containment device designed to catch, retain and provide for the evacuation of spilled **flammable liquids** or **combustible liquids** in conformance with CAN/ULC-S663, “Standard for Spill Containment Devices for Flammable and Combustible Liquid Aboveground Storage Tanks”.

Subsection 4.3.7. Secondary Containment for Aboveground Storage Tanks

General

4.3.7.1. (1) The area surrounding a **storage tank** or group of **storage tanks** shall be designed to accommodate accidental spillage in conformance with Subsection 4.1.6.

(2) Where barriers described in Sentence 4.1.6.1.(1) are provided to contain accidental spillage from aboveground **storage tanks**, they shall conform to the requirements for secondary containment in this Subsection.

(3) A **storage tank** conforming to Sentence 4.3.7.4.(2) shall be considered as conforming to this Subsection provided it is used and maintained in conformance with Articles 4.3.7.8. and 4.3.7.9.

Construction

4.3.7.2. (1) The base and walls of a secondary containment shall be made of noncombustible materials, and shall be designed, constructed and maintained to

- (a) withstand full hydrostatic head, and
- (b) provide a permeability of not more than 10⁻⁶ cm/s to the **flammable liquids** or **combustible liquids** contained in the **storage tanks**.

(2) A membrane providing the level of impermeability required in Clause (1)(b) shall

- (a) conform to CAN/ULC-S668, “Standard for Liners Used for Secondary Containment of Aboveground Flammable and Combustible Liquid Tanks”, and
- (b) be installed in accordance with the manufacturer’s instructions.

(3) A membrane that is installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continues to meet those requirements is deemed to comply with Clause (2)(a).

(4) Except as provided in Sentence (5), openings shall not be permitted in a secondary containment.

(5) Where piping passes through a secondary containment, such passages shall conform to Sentences (1) and (2).

Capacity

4.3.7.3. (1) Except as permitted in Sentence (3), a secondary containment for a single **storage tank** shall have a volumetric capacity of not less than 110% of the capacity of the tank.

(2) Except as permitted in Sentence (3), a secondary containment for more than one **storage tank** shall have a volumetric capacity of not less than the sum of

- (a) the capacity of the largest **storage tank** located in the contained space, and
- (b) 10% of the greater of
 - (i) the capacity specified in Clause (a), or
 - (ii) the aggregate capacity of all other **storage tanks** located in the contained space.

(3) When the secondary containment is designed to prevent the entry of precipitation and water used for firefighting purposes into the contained space, it shall have a volumetric capacity of not less than the capacity of the largest **storage tank** located in the contained space.

Clearances

4.3.7.4. (1) Except as provided in Sentence (2), no part of a secondary containment wall shall be less than 1.5 m from a **storage tank** shell.

(2) The distance required in Sentence (1) is permitted to be waived, provided the **storage tank**

- (a) has a capacity of not more than 50000 L and is constructed in accordance with
 - (i) CAN/ULC-S652, “Standard for Tank Assemblies for the Collection, Storage and Removal of Used Oil”, CAN/ULC-S653, “Aboveground Steel Contained Tank Assemblies for Flammable and Combustible Liquids”, or CAN/ULC-S677, “Standard for Fire Tested Aboveground Tank Assemblies for Flammable and Combustible Liquids”, incorporating secondary containment, or
 - (ii) CAN/ULC-S601, “Shop Fabricated Steel Aboveground Tanks for Flammable and Combustible Liquids”, for double-walled storage tanks, or
- (b) conforms to ULC-S655, “Aboveground Protected Tank Assemblies for Flammable and Combustible Liquids”.

(3) Aboveground **storage tanks** shall be protected by posts or guardrails where they are exposed to potential collision damage.

(4) Secondary containment walls that are installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Sentences (1), (2) and (3).

Access to storage tanks and ancillary equipment

4.3.7.5. (1) A secondary containment shall permit

- (a) access to **storage tanks**, valves and ancillary equipment,
- (b) egress from the contained space, and
- (c) access for firefighting as specified in Article 4.3.2.4.

(2) Where a **storage tank** contains Class I liquids, provisions shall be made for the normal operation of valves and for access to the **storage tank** roof without entering the contained space created by the secondary containment when

- (a) the average height of the secondary containment exceeds 3.5 m, measured from the ground level of the interior of the contained area, or
- (b) the distance between the tank shell and the top inside edge of the secondary containment wall is less than the height of this wall.

Emergency venting

4.3.7.6. Where the secondary containment is not open to the atmosphere, emergency venting shall be provided to relieve any buildup of internal pressure in the contained space when exposed to heat or fire.

Leak detection

4.3.7.7. Where the contained space created by the secondary containment is not accessible for an internal visual examination and the secondary containment is not sloped so as to permit liquid to flow to a specific location that can be monitored, a monitoring device shall be provided to indicate the loss of integrity of the secondary containment.

Drainage

4.3.7.8. (1) Liquids, debris and precipitation shall not accumulate in the contained space created by the secondary containment.

(2) Provisions shall be made for removing liquid from the secondary containment in conformance with Subsection 4.1.6.

- (3) Controls for the liquid removal system required in Sentence (2) shall be
 - (a) normally closed,
 - (b) accessible under fire exposure conditions, and
 - (c) located so they can be operated from outside the contained space.

Use of secondary containment

4.3.7.9. The contained space created by a secondary containment shall not be used for storage purposes.

Subsection 4.3.8. Installation of Underground Storage Tanks

Construction

4.3.8.1. (1) **Storage tanks** installed underground shall be of double-walled construction and shall be built in conformance with the underground **storage tank** standards identified in Sentence 4.3.1.2.(1).

(2) Underground **storage tanks** that are installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that do not comply with Sentence (1) may remain in-service if the tanks continue to meet those requirements and are not leaking.

Location

4.3.8.2. (1) Underground **storage tanks** shall be located so that loads from **building** foundations and supports are not transmitted to the tank and the foundations of **buildings** will not be undermined during excavation.

- (2) Underground **storage tanks** shall be separated by a horizontal distance of not less than
 - (a) 600 mm from adjacent underground tanks or structures,
 - (b) 1 m from a **building** foundation or a **street** line, and
 - (c) 1.5 m from other property lines.

Ground cover

4.3.8.3. (1) Except as required in Sentences (2) to (4), underground **storage tanks** shall be installed with not less than 600 mm of ground cover over the tank.

(2) Except as required in Sentence (3), **storage tanks** subjected to vehicular traffic shall be installed not less than 1 m below finished ground level.

(3) Either a 150 mm reinforced concrete slab or a 200 mm unreinforced concrete slab over not less than 450 mm of sand is permitted in lieu of the protection described in Sentence (2) provided the slab extends at least 300 mm beyond the **storage tank**.

(4) Where subsurface conditions make it impracticable to install a **storage tank** totally below adjacent ground level, an underground **storage tank** shall be installed so that at least

- (a) 75% of its mass is below adjacent ground level, provided there is not less than 600 mm of ground cover over the portion of the tank above adjacent ground level, or
- (b) 50% of its mass is below adjacent ground level, provided there is not less than 1 m of ground cover over the portion of the tank above adjacent ground level.

Damage repair

4.3.8.4. (1) Underground **storage tanks** that are in the process of being installed shall be **inspected** and any damage to the tank shell, protective coating, fittings or anodes shall be repaired before they are lowered into the excavation.

(2) Damage to **storage tank** shells shall not be repaired on site.

Damage prevention

4.3.8.5. (1) Underground **storage tanks** shall be lowered into the excavation by the use of lifting lugs and hooks and, where necessary, spreader bars to prevent damage to the tank shell, protective coating, fittings or anodes.

(2) Any method of handling that might result in damage to the protective coating of the tank shall not be used.

Installation

4.3.8.6. (1) Underground steel **storage tanks** shall be installed in conformance with Appendix A of CAN/ULC-S603.1, "Standard for External Corrosion Protection Systems for Steel Underground Tanks for Flammable and Combustible Liquids".

(2) Underground reinforced plastic **storage tanks** shall be installed in conformance with Appendix B of CAN/ULC-S615, "Standard for Fibre Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids".

(3) Underground **storage tanks** shall not be placed in direct contact with concrete slabs but shall be separated by not less than 150 mm of sand or other suitable reinforced material to evenly distribute the weight of the tank on the supporting base.

Filling

4.3.8.7. (1) **Flammable liquids** or **combustible liquids** shall not be placed in an underground **storage tank** until

- (a) the fill pipe and vent line have been installed in the tank, and
- (b) all other openings have been sealed.

Spillage

4.3.8.8. If a spillage occurs, the escaped liquid and all soil contaminated by the spill shall be removed in conformance with Subsection 4.1.6.

Anchorage

4.3.8.9. (1) Underground **storage tanks** shall be protected against hydrostatic forces which can cause the uplift of the tanks once they are empty.

(2) Where anchors and ground straps are used to resist the uplift forces referred to in Sentence (1), they shall be

- (a) electrically isolated from the tank, and
- (b) installed in such a manner that they do not damage the tank's shell, protective coating, fittings or anodes.

Subsection 4.3.9. Sumps

Installation

4.3.9.1. (1) A **dispenser sump** shall be provided under a dispenser, unless the dispenser is located on top of an aboveground **storage tank**.

(2) A **spill containment sump** shall be provided at every underground **storage tank** fill point.

(3) A **transition sump** shall be provided for all mechanical pipe connections located below **grade**.

(4) A **turbine sump** shall be provided for all turbine pump assemblies located below **grade** or above **grade** where they are not readily visible.

(5) In addition to the requirements of Article 4.3.9.2., the sumps referred to in Sentences (1) to (4) shall be installed in conformance with the sump manufacturer's instructions.

Construction

4.3.9.2. Sumps required by Article 4.3.9.1. shall be constructed in accordance with CAN/ULC-S664, "Standard for Containment Sumps, Sump Fittings, and Accessories for Flammable and Combustible Liquids".

Leak detection monitoring

4.3.9.3. Where **dispenser sumps**, **turbine sumps** and **transition sumps** referred to in Article 4.3.9.1. are used in underground applications, they shall be provided with an electronic monitoring device to indicate the presence of liquid.

Subsection 4.3.10. Corrosion Protection of Underground Steel Storage Tanks

Corrosion protection

4.3.10.1. (1) Underground steel **storage tanks** and integral fittings subject to corrosion shall be

- (a) protected in conformance with CAN/ULC-S603.1, "Standard for External Corrosion Protection Systems for Steel Underground Tanks for Flammable and Combustible Liquids", or
- (b) protected by impressed current in conformance with NACE SP0285, "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection".

Subsection 4.3.11. Vents for Underground Storage Tanks

Vent design

4.3.11.1. Underground **storage tanks** shall be provided with vent openings and piping of sufficient cross-sectional area designed to vent the tanks during the maximum filling or withdrawal rate without causing the allowable stress for the tank to be exceeded.

Materials and construction

4.3.11.2. Except at **distilleries** covered in Section 4.10, vent piping materials and construction shall conform to Subsections 4.5.2., 4.5.3. and 4.5.5.

Installation

- 4.3.11.3. (1) Vent pipe outlets from underground **storage tanks** for Class I liquids
- (a) shall be located outside **buildings** higher than the fill pipe openings but not less than
 - (i) 3.5 m above the adjacent ground level,
 - (ii) 1.5 m from any **building** opening, and
 - (iii) 7.5 m from any dispenser, and
 - (b) shall discharge so that flammable vapours will not enter **building** openings or be trapped near any part of the **building**.
- (2) Vent pipe outlets from underground **storage tanks** for Class II or IIIA liquids shall be located outside **buildings** at a height that is above the fill pipe opening but not less than 2 m above finished ground level.
- (3) Vent pipes from underground **storage tanks** for **flammable liquids** or **combustible liquids** shall not be obstructed by any device that may cause excessive back pressure, except that vent pipes from underground **storage tanks** for Class II or IIIA liquids are permitted to be fitted with return bends, coarse screens or other devices to minimize the entry of foreign material.
- (4) Vent piping shall enter the **storage tank** through the top of the tank and shall not extend into the tank more than 25 mm.
- (5) Vent piping shall be
- (a) installed so that any nominally horizontal run shall slope towards the **storage tank**,
 - (b) constructed without traps,
 - (c) adequately supported to prevent sagging, and
 - (d) where necessary, protected against mechanical damage.
- (6) Vent piping shall be **tested** for leaks at the commissioning stage in conformance with Clause 4.4.1.2.(1)(a).
- (7) Vent piping with operational vent alarms that are installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Sentence (4).

Interconnection of vent pipes

- 4.3.11.4. (1) Except as permitted in Sentence (2), where vent piping connects two or more **storage tanks**, pipe sizes shall be designed to vent the combined vapours produced in the connected underground **storage tanks** without exceeding the allowable stresses of the tanks when being filled simultaneously.
- (2) Where it is not possible to fill the connected **storage tanks** referred to in Sentence (1) simultaneously, or where the connected vents have a vapour recovery system, the vent piping shall be sized to accommodate the maximum vapour flow possible in the system.

(3) Vent piping for an underground **storage tank** containing a Class I liquid shall not be connected to the vent piping for a **storage tank** containing a Class II or IIIA liquid unless an effective method is provided to prevent the vapours from the Class I liquid **storage tank** from entering the other tank.

Subsection 4.3.12. Openings Other than Vents in Underground Storage Tanks

Connections

4.3.12.1. Connections for all openings in underground **storage tanks** shall be liquid- and vapour-tight.

Openings for measuring liquid level

4.3.12.2. Openings for measuring liquid levels in underground **storage tanks** if independent of the fill pipe shall be equipped with a vapour-tight cap or cover which shall be opened only when measuring the liquid level.

Fill piping and discharge piping

4.3.12.3. (1) Fill piping and discharge piping shall enter underground **storage tanks** only through the top of the tank and discharge piping used in suction systems shall be sloped toward the **storage tanks**.

(2) The fill point of an underground **storage tank** shall not be located higher than the discharge point of the tank's vent.

(3) Except as provided in Sentence (5), connections used as part of normal operating conditions for filling or emptying **storage tanks** for **flammable liquids** and **combustible liquids** shall be located

- (a) outside **buildings**,
- (b) at a location free of sources of ignition, and
- (c) not less than 1.5 m away from **building** openings.

(4) Connections for filling or emptying **storage tanks** described in Sentence (3) shall be kept closed to prevent leakage when not in use.

(5) A filling connection described in Sentence (3) is permitted to be located inside a **building** if

- (a) this is made necessary
 - (i) by a process or activity located indoors and to which the **storage tank** is directly associated, or
 - (ii) for the collection of used liquids, and
- (b) the fill piping is provided with means to prevent flammable vapours from returning to the **building**.

(6) If a fill piping system has an offset component from the fill point on the **storage tank**, all fill pipes shall be

- (a) double-walled,
- (b) sloped to the **storage tank**, and
- (c) electronically monitored for leak detection in conformance with Section 4.4.

(7) Where the fill point is below the normal liquid level in the **storage tank**

- (a) the fill line shall be equipped with a manual or automatic valve located at the fill point to prevent spillage when the fill cap is removed, and
- (b) if the storage tank contains **flammable liquids** or **combustible liquids**, the fill line drop tube shall be equipped with a method to prevent siphoning of the tank's content should a leak occur in the fill line.

(8) Fill piping systems that are installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Sentences (6) and (7).

Subsection 4.3.13. Installation of Storage Tanks inside Buildings

Occupancy

4.3.13.1. (1) Except as provided in Article 4.3.13.2., **storage tanks** located inside **buildings** shall conform to Subsections 4.3.13. to 4.3.15. and be permitted in

- (a) **industrial occupancies**, and
- (b) **occupancies** other than **industrial occupancies** where **combustible liquids** are stored and used as fuel for oil-burning equipment, emergency generators and fire pumps.

Stationary combustion engines

4.3.13.2. Installations using Class I liquids as fuel supplies for stationary engines inside **buildings** shall conform to NFPA 37, "Installation and Use of Stationary Combustion Engines and Gas Turbines".

Maximum static head

4.3.13.3. The static head imposed on a **storage tank** inside a **building** shall not exceed 70 kPa (gauge) at the bottom of the tank when the vent or fill pipe is filled with liquid unless the tank is designed for greater pressures.

Maximum quantities and location

4.3.13.4. (1) Except as provided in Subsection 4.2.8. and in Sentence (2), **storage tanks** for **flammable liquids** or **combustible liquids** shall be

- (a) located in dedicated storage rooms conforming to Subsection 4.3.14., and
- (b) located in conformance with Tables 4.3.13.4.A. and 4.3.13.4.B.

(2) When quantities greater than those permitted for incidental use in Subsection 4.2.8. are required for special process operations, **storage tanks** for **flammable liquids** or **combustible liquids** are permitted to be located outside of a storage room referred to in Sentence (1), provided that

- (a) total quantities per **fire compartment** are not more than one-half the quantities permitted in Table 4.3.13.4.A.,
- (b) they are located on the **first storey**, and
- (c) the installation conforms to Articles 4.3.13.9. to 4.3.13.12. and 4.3.14.5.

(3) Table 4.3.13.4.A. does not apply to the storage of **distilled beverage alcohol**.

TABLE 4.3.13.4.A.

Indoor Tank Storage in **Industrial Occupancies**
Forming Part of Article 4.3.13.4.

Class of Liquid	Storage Level	Maximum Quantity per Storage Room ⁽¹⁾ , L One or More Tanks Protected Storage ⁽²⁾	Maximum Quantity per Storage Room ⁽¹⁾ , L One or More Tanks Unprotected Storage
Class I	First storey	40000	25000
Class I	Storeys above the first storey	7500	Not permitted
Class I	Basement	Not permitted	Not permitted
Classes II and IIIA	First storey	200000	100000

TABLE 4.3.13.4.A.

(continued)

Class of Liquid	Storage Level	Maximum Quantity per Storage Room ⁽¹⁾ , L One or More Tanks Protected Storage ⁽²⁾	Maximum Quantity per Storage Room ⁽¹⁾ , L One or More Tanks Unprotected Storage
Classes II and IIIA	Storeys above the first storey	20000	Not permitted
Classes II and IIIA	Basement	20000	Not permitted

Notes to Table 4.3.13.4.A.:
⁽¹⁾ See Subsection 4.3.14.

⁽²⁾ See Article 4.2.7.6.

TABLE 4.3.13.4.B.

 Indoor Tank Storage in **Occupancies** Using Oil-Burning Equipment, Emergency Generators and Fire Pumps
Forming Part of Article 4.3.13.4.

Class of Liquid	Storage Level	Quantity per Protected Storage Room ⁽¹⁾ , L Individual Tank	Quantity per Protected Storage Room ⁽¹⁾ , L Aggregate
Classes II and IIIA	First storey ⁽²⁾	> 2500 ⁽³⁾	200000
Classes II and IIIA	First storey ⁽²⁾	> 20000 ⁽⁴⁾	200000
Classes II and IIIA	Basement and storeys above the first storey	> 2500 ⁽³⁾	20000
Classes II and IIIA	Basement and storeys above the first storey	> 20000 ⁽⁴⁾	45000

Notes to Table 4.3.13.4.B.:
⁽¹⁾ See Article 4.2.7.6.

⁽²⁾ For industrial occupancies where the tanks are located in a separate storage room from the equipment, refer to Table 4.3.13.4.A.

⁽³⁾ See Sentence 4.3.13.5.(1).

⁽⁴⁾ See Sentence 4.3.13.5.(2).

Storage tank construction

 4.3.13.5. (1) **Storage tanks** with an individual capacity exceeding 2500 L but not exceeding 20000 L that are used in conformance with Table 4.3.13.4.B. shall be

- (a) of double-walled construction in conformance with CAN/ULC-S601, “Shop Fabricated Steel Aboveground Tanks for Flammable and Combustible Liquids”, and
- (b) monitored for leakage in conformance with Sentence 4.4.2.1.(7).

 (2) **Storage tanks** with an individual capacity exceeding 20000 L that are used in conformance with Table 4.3.13.4.B. shall

- (a) conform to ULC-S655, “Aboveground Protected Tank Assemblies for Flammable and Combustible Liquids”, and
- (b) be monitored for leakage in conformance with Sentence 4.4.2.1.(7).

Piping systems

4.3.13.6. Piping systems serving oil-burning equipment, diesel-engine-driven emergency generators and fire pumps shall conform to CSA B139, "Installation Code for Oil-Burning Equipment".

Fire compartments

4.3.13.7. **Fire compartments** regulated by this Subsection shall be separated from the remainder of the building by a **fire separation** having a **fire-resistance rating** of not less than 2 h.

Mixed storage

4.3.13.8. When two or more classes of liquids are stored in a single storage room referred to in Sentence 4.3.13.4.(1), the total quantity permitted for each class of liquid shall be calculated as follows :

$$q_I/Q_I + (q_{II+III A}) / (Q_{II+III A}) \leq 1$$

where

q_I = actual quantity of Class I liquids present, in litres,

$q_{II+III A}$ = actual quantity of Class II and IIIA liquids present, in litres,

Q_I = maximum quantity of Class I liquids permitted in Table 4.3.13.4.A., in litres, and

$Q_{II+III A}$ = maximum quantity of Class II and IIIA liquids permitted in Table 4.3.13.4.A., in litres.

Storage tanks outside storage rooms

4.3.13.9. (1) Where **storage tanks** for **flammable liquids** or **combustible liquids** are located outside of storage rooms conforming to Subsection 4.3.14.

- (a) provision shall be made, to contain a spill equal to at least 100% of the volume of the largest **storage tank**, or to drain away spilled **flammable liquids** or **combustible liquids**, in conformance with Subsection 4.1.6.,
- (b) the area in which the **storage tank** is located shall be ventilated in conformance with Subsection 4.1.7., where designated a Class 1, Zone 0, 1 or 2 hazardous location under the **Electrical Safety Code** made under the **Electricity Act, 1998**, and
- (c) all electrical equipment and wiring in the vicinity of the **storage tank** and the exterior vent shall be installed in conformance with Subsection 4.1.4.

Vents

4.3.13.10. (1) Except as provided in Sentence (2), normal and emergency vents for **storage tanks** in **buildings** shall be provided in conformance with Subsections 4.3.4. and 4.3.5.

(2) The use of weak roof-to-side shell seams, designed to rupture before the allowable design stress of the **storage tank** is reached, shall not be permitted as a means of emergency venting of **storage tanks** inside **buildings**.

Supports, foundations and anchorage

4.3.13.11. (1) Except as provided in Sentence (2), where **storage tanks** for **flammable liquids** or **combustible liquids** are installed inside **buildings**, the supports, foundations and anchorage for such **storage tanks** shall be in conformance with Subsection 4.3.3.

(2) Where a **storage tank** is suspended, rather than supported on a foundation, supports shall be designed and installed in conformance with good engineering practice.

Bonding and grounding

4.3.13.12. Where **storage tanks** for **flammable liquids** or **combustible liquids** are installed inside **buildings**, tanks, piping and discharge equipment shall be bonded and grounded.

Subsection 4.3.14. Rooms for Storage Tanks

Design and construction

- 4.3.14.1. (1) Rooms for **storage tanks** inside **buildings**, referred to in Sentence 4.3.13.4.(1), shall be
- (a) separated from the rest of the **building** by a **fire separation** having a **fire-resistance rating** of at least 2 h,
 - (b) designed to contain a spill equal to at least 100% of the volume of the largest **storage tank** or to drain away spilled **flammable liquids** or **combustible liquids**,
 - (c) made liquid-tight where the walls join the floor,
 - (d) used for no other purposes than the storage and handling of **flammable liquids** or **combustible liquids**, and
 - (e) provided with natural or mechanical ventilation in conformance with Subsection 4.1.7.

Clearances

4.3.14.2. A minimum clear space of 550 mm shall be maintained between the walls of a room described in Article 4.3.14.1. and the sides of any **storage tanks** within the room.

Explosion venting

4.3.14.3. 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 NFPA 68, “Standard on Explosion Protection by Deflagration Venting”.

Placards

4.3.14.4. (1) Placards conforming to Article 3.2.7.14., identifying the liquids stored as **flammable liquids** or **combustible liquids** and the capacities of the storage tanks, shall be posted in a conspicuous location outside of the room, and that information shall be included in the fire safety plan required in Article 4.1.5.5.

(2) Placards that are installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Sentence (1).

Hose stations and portable extinguishers

4.3.14.5. (1) In **buildings** not required to be equipped with a standpipe and hose system by the **Building Code**, hose stations conforming to Articles 3.2.9.2. to 3.2.9.7. of Division B of the **Building Code**, as it read on August 21, 2000, shall be provided in the vicinity of the storage room, such that all parts of the room are within reach of a hose stream.

- (2) Portable extinguishers for **Class B fires** shall be provided in conformance with Section 6.2.

Subsection 4.3.15. Openings Other than Vents in Storage Tanks inside Buildings

Connections

- 4.3.15.1. (1) Connections for all openings in **storage tanks** in **buildings** shall be liquid- and vapour-tight.
- (2) Connections to **storage tanks** through which liquid can flow shall be provided with valves located as close as practicable to the tank.
- (3) Connections for filling or emptying storage tanks shall be provided with a spill containment device in accordance with Sentence 4.3.6.4.(4).

Openings for liquid level measurement

4.3.15.2. (1) Openings that are independent of the fill pipe and are used for measuring the liquid level in **storage tanks** containing Class I or II liquids shall be equipped with a vapour-tight cap which shall be opened only when measuring the liquid level.

(2) Openings referred to in Sentence (1) shall be protected against overflow and **vapour pressure** by means of a spring-loaded check valve.

Subsection 4.3.16. Out of Service*Underground storage tanks*

4.3.16.1. (1) The removal, abandonment in place, disposal or temporary taking out of service of an underground **storage tank** shall be in conformance with

- (a) NFPA 30, “Flammable and Combustible Liquids Code”,
- (b) API RP 1604, “Closure of Underground Petroleum Storage Tanks”, or
- (c) CCME PN 1326, “Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products”. (2) Where a **storage tank** has been out of service for more than 12 months, the tank and piping shall be tested for leakage in conformance with Section 4.4.

(3) Underground **storage tanks** that were abandoned in place or temporarily taken out of service, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Sentence (1).

Removal

4.3.16.2. (1) In addition to the requirements of Article 4.3.16.1., when underground storage tanks have no further use or have been out of service for two years or longer, such tanks, together with connected piping and dispensers, shall

- (a) have all **flammable liquids** and **combustible liquids** removed from them,
- (b) be purged of vapours, and
- (c) except as permitted in Article 4.3.16.3., be removed from the ground.

(2) If contaminated, soil surrounding the **storage tanks** described in Sentence (1) shall be replaced with clean fill.

Abandonment in place

4.3.16.3. (1) In addition to the requirements of Articles 4.3.16.1. and 4.3.16.2., where the **Chief Fire Official** determines that it is impractical to remove an underground **storage tank** described in Sentence 4.3.16.2.(1), such tank shall be filled with an inert material.

(2) In addition to the requirements of Articles 4.3.16.1. and 4.3.16.2., where the Chief Fire Official determines that it is impractical to remove underground piping described in Sentence 4.3.16.2.(1), such piping shall have the ends permanently sealed by capping or plugging.

Aboveground storage tanks

4.3.16.4. (1) When an aboveground **storage tank** will be out of service or unsupervised for a period not exceeding 180 days, the piping from the tank shall be capped or the valves that are necessary to achieve similar isolation of the tank shall be closed and securely locked.

(2) Where a **storage tank** referred to in Sentence (1) contains **flammable liquids** or **combustible liquids**, the liquid level in the tank shall be measured and compared with subsequent readings taken at intervals not greater than one month.

- (3) When an aboveground **storage tank** will be out of service or unsupervised for a period exceeding 180 days
- (a) all liquid and vapours shall be removed from the **storage tank** and its connected piping, and
 - (b) the **storage tank** markings shall clearly indicate that the tank is empty.

Disposal

4.3.16.5. Where a **storage tank** is to be permanently disposed of, sufficient openings shall be cut in the tank to render it unfit for further use.

Underground piping systems

- 4.3.16.6. (1) The removal, abandonment in place, disposal or temporary taking out of service of an underground piping system shall be in conformance with
- (a) NFPA 30, “Flammable and Combustible Liquids Code”,
 - (b) API RP 1604, “Closure of Underground Petroleum Storage Tanks”, or
 - (c) CCME PN 1326, “Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products”.

Corrosion protection

4.3.16.7. Corrosion protection systems shall be maintained in operating condition when a **storage tank** is temporarily out of service and during seasonal shutdowns.

SECTION 4.4 LEAK DETECTION OF STORAGE TANKS AND PIPING SYSTEMS

Subsection 4.4.1. General

Application

4.4.1.1. (1) Except as provided in Sentence (2) and except as otherwise specified in this Code, this Section provides the minimum requirements regarding the detection of leaks in aboveground and underground **storage tanks**, piping systems and sumps.

(2) This Section shall not apply to storage tanks that have been taken out of service in compliance with the applicable provisions of Subsection 4.3.16.

(3) Leakage detection that is installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continues to meet those requirements is deemed to comply with this Section.

Frequency and methods of leak detection testing and monitoring

4.4.1.2. (1) Every **storage tank**, piping system and sump, including those at fuel-dispensing stations, shall be **tested** and monitored for leaks in conformance with Tables 4.4.1.2.A. to 4.4.1.2.E., which establish the minimum requirements regarding the frequency and methods to be used for

- (a) commissioning **testing**,
- (b) subsequent in-service monitoring, and
- (c) **testing** when a leak is suspected.

(2) The methods referred to in Sentence (1) shall conform to Subsections 4.4.2. to 4.4.4.

(3) The commissioning **testing** referred to in Sentence (1) shall be performed at the time of installation

- (a) once backfill and surfacing have been completed but before being put into service, in the case of an underground **storage tank** or underground piping system,
 - (b) before being put into service, in the case of an aboveground **storage tank** or exposed piping system, and
 - (c) once the final surface materials have been installed but before being put into service, in the case of a sump.
- (4) The frequency of the in-service monitoring referred to in Sentence (1) shall be calculated from the date of the commissioning **test**.
- (5) Immediate action shall be taken when a leak is suspected and the leak detection **testing** referred to in Sentence (1) shall be performed if
- (a) a loss of liquid or a gain of water is indicated by any of the leak detection measures described in this Section, or
 - (b) the level of water at the bottom of an underground **storage tank** exceeds 50 mm.
- (6) Where **dispenser sumps**, **transition sumps** and **turbine sumps** are provided with electronic monitoring devices in accordance with Article 4.3.9.3., the devices shall be interlocked with the dispenser or pump to shut it down upon detection of either product or a high liquid level.
- (7) The minimum requirements referred to in Sentence (1) shall not preclude the appropriate use of **alternative solutions** that include innovative new technologies or methods capable of achieving the same **objectives**.

TABLE 4.4.1.2.A.
Leak Detection **Testing** and Monitoring of Underground **Storage Tanks**
Forming Part of Article 4.4.1.2.

Type of Containment	Commissioning Test	Continuous In-Service Monitoring	Periodic In-Service Monitoring	Leak Suspected
Single-walled ⁽¹⁾	Not applicable ⁽²⁾	Inventory Reconciliation	Precision Leak Detection Test every two years	Precision Leak Detection Test
Single-walled ⁽¹⁾	Not applicable ⁽²⁾	Inventory Reconciliation and Monitoring Wells	Precision Leak Detection Test every five years	Precision Leak Detection Test
Single-walled ⁽¹⁾	Not applicable ⁽²⁾	Statistical Inventory Reconciliation (SIR)	Precision Leak Detection Test every five years	Precision Leak Detection Test
Single-walled ⁽¹⁾	Not applicable ⁽²⁾	Automatic Tank Gauge	None required	Precision Leak Detection Test
Single-walled ⁽¹⁾	Not applicable ⁽²⁾	Continuous In-Tank Leak Detection	None required	Precision Leak Detection Test
Double-walled ⁽³⁾	Precision Leak Detection Test or Secondary Containment Test ⁽⁴⁾	Secondary Containment Monitoring	None required	Precision Leak Detection Test or Secondary Containment Test ⁽⁴⁾

Notes to Table 4.4.1.2.A.:

⁽¹⁾ Applies to single-walled **storage tanks** of typical construction, including **storage tanks** that do not meet the requirements for double-walled **storage tanks**.

(2) Not applicable because underground **storage tanks** must be of double-walled construction as per Sentence 4.3.8.1.(1).

(3) Applies to double-walled **storage tanks**, which have an interstitial space that allows for monitoring using high- or low-tech methods.

(4) The Secondary Containment **Test** is a precision **test** capable of detecting leaks in the interstitial space of the **storage tank**. Risers, connections and vents are also susceptible to leakage and must therefore also be precision-**tested**.

TABLE 4.4.1.2.B.

Leak Detection **Testing** and Monitoring of Aboveground **Storage Tanks**
Forming Part of Article 4.4.1.2.

Type of Containment ⁽¹⁾	Commissioning Test	Continuous In-Service Monitoring	Periodic In-Service Monitoring	Leak Suspected
Contained open ⁽²⁾ vertical tank	Visual inspection ⁽³⁾ during Liquid Media Test	Inventory Reconciliation and Secondary Containment Monitoring	API STD 653 or Tank floor inspection every 10 years	API STD 653 or Tank floor inspection
Contained open horizontal tank	Visual inspection ⁽³⁾ during Liquid Media Test	Inventory Reconciliation and Secondary Containment Monitoring	None required	Visual inspection ⁽³⁾
Double-walled ⁽⁴⁾	Visual inspection ⁽³⁾	Secondary Containment Monitoring	None required	Secondary Containment Test

Notes to Table 4.4.1.2.B.:

(1) See Subsection 4.3.7.

(2) Applies to **storage tanks** contained in an open arrangement that do not meet the requirements for double-walled **storage tanks**.

(3) Visual leak detection may apply to single- or double-walled **storage tanks** and piping. See Sentence 4.4.2.1.(8).

(4) Applies to double-walled **storage tanks**, which have an interstitial space that allows for monitoring using high- or low-tech methods.

TABLE 4.4.1.2.C.

Leak Detection **Testing** and Monitoring of Underground Piping Systems
Forming Part of Article 4.4.1.2.

Type of Containment	Commissioning Test	Continuous In-Service Monitoring	Periodic In-Service Monitoring	Leak Suspected
Single-walled ⁽¹⁾ and single-walled, buried mechanical threaded connections ⁽²⁾	Not applicable ⁽³⁾	Inventory Reconciliation	Pipe Leak Detection Test ⁽⁴⁾ every two years (annually for mechanical connections)	Pipe Leak Detection Test ⁽⁴⁾
Single-walled ⁽¹⁾ and single-walled, buried mechanical threaded connections ⁽²⁾	Not applicable ⁽³⁾	Inventory Reconciliation and Monitoring Wells	Pipe Leak Detection Test ⁽⁴⁾ every 5 years (annually for mechanical connections)	Pipe Leak Detection Test ⁽⁴⁾
Single-walled ⁽¹⁾ and single-walled, buried mechanical threaded connections ⁽²⁾	Not applicable ⁽³⁾	Statistical Inventory Reconciliation (SIR)	Pipe Leak Detection Test ⁽⁴⁾ every 5 years (annually for mechanical connections)	Pipe Leak Detection Test ⁽⁴⁾
Single-walled ⁽¹⁾ and single-walled, buried mechanical threaded connections ⁽²⁾	Not applicable ⁽³⁾	Single Check Valve ⁽⁵⁾	Pipe Leak Detection Test ⁽⁴⁾ every 5 years (annually for mechanical connections)	Pipe Leak Detection Test ⁽⁴⁾
Single-walled ⁽¹⁾ and single-walled, buried mechanical threaded connections ⁽²⁾	Not applicable ⁽³⁾	Electronic Line Leak Detection (with a detectable limit of 0.76 L/h monthly)	Electronic Line Leak Detection (with a detectable limit of 0.38 L/h annually)	Pipe Leak Detection Test ⁽⁴⁾
Single-walled ⁽¹⁾ and single-walled, buried mechanical threaded connections ⁽²⁾	Not applicable ⁽³⁾	Continuous Electronic Line and Tank Leak Detection (with a detectable limit of 0.76 L/h monthly)	Continuous Electronic Line and Tank Leak Detection (with a detectable limit of 0.38 L/h annually)	Pipe Leak Detection Test ⁽⁴⁾
Double-walled ⁽⁶⁾	Pipe Leak Detection Test and Secondary Containment Test ⁽⁷⁾	Secondary Containment Monitoring	None required	Pipe Leak Detection Test ⁽⁴⁾ or Secondary Containment Test ⁽⁷⁾

Notes to Table 4.4.1.2.C.:

⁽¹⁾ Applies to single-walled piping systems of typical construction, including piping systems that do not meet the requirements for double-walled piping systems.

⁽²⁾ See Article 4.5.5.6.

⁽³⁾ Not applicable because underground piping systems must be of double-walled construction as per Sentence 4.5.6.1.(1).

(4) The Pipe Leak Detection **Test** results shall conform to Sentence 4.4.3.4.(9) with a probability of detection of 0.95 or greater and a probability of false alarm of 0.05 or less.

(5) Applies to suction line only.

(6) Applies to double-walled piping systems, which have an interstitial space that allows for monitoring using high- or low-tech methods. Monitoring of the sump using high-tech methods in accordance with Table 4.4.1.2.E. is considered as meeting the requirements for monitoring of an open-draining interstitial space of double-walled piping.

(7) The Secondary Containment **Test** shall conform to Article 4.4.3.3.

TABLE 4.4.1.2.D.

Leak Detection **Testing** and Monitoring of Exposed Piping Systems
Forming Part of Article 4.4.1.2.

Type of Containment	Commissioning Test	Continuous In-Service Monitoring	Periodic In-Service Monitoring	Leak Suspected
Single-walled ⁽¹⁾	Pipe Leak Detection Test	Visual inspection ⁽²⁾	None required	Identify and repair
Flexible hose lines over water	Pipe Leak Detection Test	Visual inspection ⁽²⁾	Pipe Leak Detection Test ⁽³⁾ every 12 months	Identify and repair
Double-walled ⁽⁴⁾	Pipe Leak Detection Test	Secondary Containment Monitoring	None required	Identify and repair
Contained open ⁽⁵⁾	Pipe Leak Detection Test	Visual inspection ⁽²⁾	None required	Identify and repair

Notes to Table 4.4.1.2.D.:

(1) Applies to single-walled piping systems of typical construction, including piping systems that do not meet the requirements for double-walled or contained open piping systems.

(2) See Sentence 4.4.2.1.(8).

(3) The Pipe Leak Detection **Test** results shall conform to Sentence 4.4.3.4.(9) with a probability of detection of 0.95 or greater and a probability of false alarm of 0.05 or less.

(4) Applies to double-walled piping systems with an interstitial space contiguous to the primary containment that can be monitored using high- or low-tech methods.

(5) Applies to piping systems contained in an open arrangement that do not meet the requirements for double-walled piping systems and do not conform to Subsection 4.3.7.

TABLE 4.4.1.2.E.

Leak Detection **Testing** and Monitoring of **Turbine, Transition, Dispenser** and **Spill Containment Sumps**
Forming Part of Article 4.4.1.2.

Type of Containment	Commissioning Test	Continuous In-Service monitoring	Periodic In-Service Monitoring	Leak Suspected
Dispenser, turbine and transition sumps	Static Liquid Media Leak Detection Test ⁽¹⁾	Weekly visual inspection or electronic monitoring ⁽²⁾	Annual visual inspection	Identify and repair
Spill containment sumps	Static Liquid Media Leak Detection Test ⁽¹⁾	Weekly visual inspection at fill point	Annual visual inspection ⁽³⁾	Identify and repair

Notes to Table 4.4.1.2.E.:

⁽¹⁾ See Article 4.4.3.5.

⁽²⁾ Electronic monitoring devices need to be **tested** at least once annually in conformance with the manufacturer's recommendations.

Remedial action

4.4.1.3. (1) Except as provided in Sentence (2), when a leak detection test required by this Section detects a leak in a **storage tank**, piping system or sump, the leaking components or system shall be

- (a) repaired and **tested**,
- (b) replaced, or
- (c) removed.

(2) When a leak detection test required by this Section detects a leak in a single-walled construction underground **storage tank** or piping system, the leaking components or system shall be

- (a) replaced in conformance with Articles 4.3.8.1. and 4.5.6.1., or
- (b) taken out of service in conformance with Subsection 4.3.16.

(3) Where a leak is detected as described in Sentence (1) or (2), the escaped liquid shall be removed in conformance with Subsection 4.1.6.

(4) The **Chief Fire Official** shall be notified within 24 h of detection of a leak referred to in Sentence (1).

Retention of records

4.4.1.4. Records of the **tests** referred to in this Section shall be retained in conformance with Subsection 1.1.2.

Subsection 4.4.2. Leak Detection Testing and Monitoring Methods

Definition and performance of leak detection testing and monitoring methods

4.4.2.1. (1) This Subsection applies to the leak detection **testing** and monitoring methods referred to in this Section.

(2) Inventory reconciliation referred to in this Section shall

- (a) for the time period designated, determine product loss or gain based on the reconciliation of
 - (i) change in physical inventory,

- (ii) inventory additions (deliveries),
 - (iii) inventory removals (sales), and
 - (iv) miscellaneous inventory alterations, and
 - (b) determine the level of water in the tank.
- (3) A leak detection method that monitors vapours in the soil or liquids on the groundwater shall conform to good engineering practice and meet the requirements of vapour monitoring or groundwater monitoring systems.
- (4) Statistical inventory reconciliation (SIR) methodology shall be capable of detecting a leak
- (a) of 0.38 L/h with a probability of detection of 0.95 or greater and a probability of false alarm of 0.05 or less, based on an inventory record of specified length to be considered as an annual **test**, or
 - (b) of 0.76 L/h with a probability of detection of 0.95 or greater and a probability of false alarm of 0.05 or less, based on an inventory record of specified length to be considered as a monthly **test**.
- (5) Where inventory reconciliation is performed using automatic tank gauging referred to in Sentence (2), the system shall conform to CAN/ULC-S675.1, “Standard for Volumetric Leak Detection Devices for Underground and Aboveground Storage Tanks for Flammable and Combustible Liquids”, and meet the requirements of a precision leak detection **test** when a leak is suspected in conformance with Table 4.4.1.2.A.
- (6) A continuous in-tank leak detection system shall conform to good engineering practice and meet the requirements of a precision leak detection test referred to in Sentence 4.4.2.1.(10).
- (7) High-tech secondary containment monitoring referred to in this Section shall include the use of an automatic device that continuously monitors the interstitial space between the inner tank or inner piping and the secondary containment.
- (8) Visual **inspection** referred to in this Section shall
- (a) in the case of an exposed piping system, conform to Article 4.5.10.5., and
 - (b) in the case of an aboveground **storage tank**, consist of
 - (i) a visual examination of the tank shell, or
 - (ii) if the bottom of the tank is not amenable to a visual examination, **testing** the bottom of the tank.
- (9) A static liquid media leak detection test shall conform to Article 4.4.3.5.
- (10) The precision leak detection test for underground **storage tanks** that is referred to in this Section shall
- (a) be capable of detecting a **storage tank** leak rate as small as 0.38 L/h within 24 h with a probability of detection of 0.95 or greater and a probability of false alarm of 0.05 or less, and
 - (b) be conducted by an individual who has been trained in the proper care and use of the **test** equipment and the operating procedures.
- (11) Pipe leak detection referred to in this Section shall conform to ULC/ORD-C107.12, “Line Leak Detection Devices for Flammable Liquid Piping”.
- (12) A single vertical check valve referred to in this Section shall
- (a) consist of a vertical check valve located immediately under the pump,
 - (b) be installed with no other check valve between the suction pump and the **storage tank**, and
 - (c) be part of an installation where lines must be sufficiently sloped so that any liquid in the line will drain back into the **storage tank** should a leak occur in the piping system.

Subsection 4.4.3. Leak Detection Testing of Storage Tanks, Piping Systems and Sumps

Leak detection tests

4.4.3.1. (1) Where field **test** methods are included in the **storage tank** construction standards referred to in Articles 4.3.1.2. and 4.3.1.3., such **tests** shall be permitted for **storage tanks** conforming to those standards.

(2) If a precision leak detection **test** referred to in Sentence 4.4.2.1.(10) detects a leak rate exceeding 0.38 L/h on an underground **storage tank**, the tank shall be considered to be leaking.

(3) During a leak detection **test** on a **storage tank**, the pressure at the bottom of the tank shall not exceed the tank manufacturer's specifications.

Pneumatic leak detection tests

4.4.3.2. (1) Pneumatic leak detection tests using compressed air shall not be performed on **storage tanks** and piping systems having once contained **flammable liquids** or **combustible liquids**.

(2) Except as provided in Sentence (1), pneumatic leak detection **tests** using compressed air or an inert gas shall include the application of soap and water to the **storage tank** and piping surface, fittings, joints and connections to help in the detection of leaks.

(3) In the case of underground **storage tanks** or piping, the **test** referred to in Sentence (2) shall be conducted prior to covering the tank or piping system.

(4) Where a pneumatic leak detection test is conducted before an underground storage tank is backfilled, in the case of a new tank, or after the tank is uncovered, in the case of a previously installed tank, the **test** pressure shall be in conformance with the production **testing** requirements of

- (a) CAN/ULC-S603, "Standard for Steel Underground Tanks for Flammable and Combustible Liquids", or
- (b) CAN/ULC-S615, "Standard for Fibre Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids".

(5) Pneumatic leak detection **tests** shall not be performed on field-erected aboveground **storage tanks**.

(6) Measures shall be taken to guard against the hazards associated with pneumatic leak detection testing in areas where explosive mixtures of **flammable liquid** or **combustible liquid** vapours and air may be present in the vicinity of a **storage tank** that has been in use.

Protocols for pneumatic leak detection testing of piping systems

4.4.3.3. (1) A pressure decline **test** using an inert gas is permitted to be used as a leak detection test for piping systems that

- (a) are new or in use, and
- (b) convey a volume of less than 1000 L.

(2) A pressure decline **test** performed on a piping system shall conform to Sentences (3) to (9).

(3) The design and installation of the piping system permitting, the piping system's contents shall be drained prior to conducting the pressure decline **test** procedure.

(4) Pumps, dispensers and other auxiliary equipment that are connected to the piping system and cannot withstand the pressure of the **test** shall be isolated from the test procedure to prevent damage to the equipment.

(5) A stabilization period of up to 30 min is required after pressurization.

(6) Pipe volumes of 500 L or less shall be pressurized for at least 60 min after stabilization.

- (7) Pipe volumes greater than 500 L but less than 1000 L shall be pressurized for at least 2 h after stabilization.
- (8) **Test** pressures shall
 - (a) be the greater of 350 kPa (gauge) or 1.5 times the maximum operating pressure, and
 - (b) not exceed the piping manufacturer's **test** specifications.
- (9) The piping system shall be considered to be leaking if any pressure decline is detected within the time periods stated.

Protocols for liquid media leak detection testing of piping systems

- 4.4.3.4. (1) Liquid media leak detection **testing** of piping systems shall conform to Sentences (2) to (9).
- (2) **Test** devices and methods shall conform to the performance requirements of ULC/ORD-C107.12, "Line Leak Detection Devices for Flammable Liquid Piping".
- (3) **Tests** shall be conducted by an individual who has been trained in the proper use of the test device and the operating procedures.
- (4) A sufficient amount of time shall be allocated to stabilize the temperature of the liquid throughout the volume of the piping during the **test**.
- (5) Except as provided in Sentences (6) and (7), **test** pressure shall
 - (a) be the greater of 350 kPa (gauge) or 1.5 times the maximum operating pressure, and
 - (b) not exceed the piping manufacturer's **test** specifications.
- (6) **Test** pressures exceeding 700 kPa (gauge) shall not be permitted unless the pressure, and piping system is designed for such pressures.
- (7) Where **test** pressures exceed the design pressures for pumps or similar components connected to the piping system being tested, such pumps or components shall be isolated from the **test** procedure.
- (8) Class I liquids shall not be used for pressure **testing** piping systems, except that pressure piping normally containing Class I liquids is permitted to be **tested** with such liquids at pressures not exceeding their maximum operating pressures.
- (9) The piping system shall be considered to be leaking if the leak rate exceeds 0.38 L/h.

Protocols for leak detection testing of sumps

- 4.4.3.5. (1) Static liquid media leak detection **testing** of **turbine, transition, dispenser and pump sumps** shall conform to Sentences (2) to (4).
- (2) Static liquid media **testing** of sumps shall be performed at the installation stage after all electrical and mechanical work passing through the sump wall has been completed but before any backfilling around the exterior of the sump is completed.
- (3) The liquid used for the test shall
 - (a) exceed the elevation of the piping and other points of entry into the sump by at least 50 mm, and
 - (b) not be a **flammable liquid** or a **combustible liquid**.
- (4) The minimum duration of the **test** shall be 1 h with no visual or measured evidence of leakage.

Subsection 4.4.4. Leak Detection Monitoring of Storage Tanks and Piping Systems

Inventory reconciliation

4.4.4.1. (1) Where inventory reconciliation is required by this Section, the liquid level in any **storage tank** shall be measured at intervals not greater than seven days in conformance with Sentences (2) to (4), except that at fuel-dispensing **stations** the measurements shall be taken each day the station is in operation.

(2) The level of water at the bottom of an underground **storage tank** shall be measured at intervals not greater than seven days, except that at **fuel-dispensing stations** the measurements shall be taken each day the station is in operation.

(3) A comparison of the measurements described in Sentences (1) and (2) with meter readings and a computation of any gain or loss of liquid shall be done each time a required measurement is taken.

(4) Investigative action shall be undertaken if the inventory reconciliation described in Sentence 4.4.2.1.(2) indicates the following inexplicable conditions:

- (a) a monthly loss of
 - (i) 0.5 percent or more of the throughput from an underground **storage tank**, or
 - (ii) 1.0 percent or more of the throughput from an aboveground **storage tank**,
- (b) three consecutive losses greater than 200 L/day, and
- (c) a water level greater than 50 mm.

(5) A record of the measurements for each **storage tank** and of the computations described in Sentence (4) shall be retained for examination by the **Chief Fire Official**, in conformance with Subsection 1.1.2.

Leakage detection

4.4.4.2. Where continuous leak detection is provided on an underground piping system, it shall conform to ULC/ORD-C107.12, “Line Leak Detection Devices for Flammable Liquid Piping”.

SECTION 4.5 PIPING AND TRANSFER SYSTEMS

Subsection 4.5.1. Scope

Application

4.5.1.1. (1) This Section applies to piping and transfer systems for **flammable liquids** and **combustible liquids**.

(2) Except where otherwise stated in this Part, this Section shall not apply to the following:

- (a) tubing or casings and piping for oil or gas wells,
- (b) transmission pipelines,
- (c) piping for vehicles, aircraft, watercraft and portable or stationary engines,
- (d) piping systems in **fuel-dispensing stations** and **distilleries**, and
- (e) piping that falls within the scope of the applicable provincial or territorial codes regulating **boilers** and **pressure vessels**.

Subsection 4.5.2. Materials for Piping, Valves and Fittings

Materials

4.5.2.1. (1) Materials for piping systems containing **flammable liquids** or **combustible liquids** shall be suitable for the maximum anticipated working pressures and operating temperatures and for the chemical properties of the contained liquid.

(2) Except as provided in Sentence (3), the use of the following materials for piping systems referred to in Sentence (1) shall not be permitted:

- (a) materials that are subject to failure from internal stress or rupture by mechanical damage, or
- (b) combustible or low-melting-point materials that are subject to failure in fires.

(3) Metallic and non-metallic piping systems are permitted to be used for underground installations, provided they conform to CAN/ULC-S679, "Standard for Metallic and Nonmetallic Underground Piping for Flammable and Combustible Liquids".

(4) Except as provided in Sentence (5), where steel piping is used, it shall conform to

- (a) API SPEC 5L, "Line Pipe",
- (b) ASTM A53/A53M, "Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless", or
- (c) CSA Z245.1, "Steel Pipe".

(5) Where service pressures exceeding 875 kPa (gauge) may occur, piping and fittings shall be designed in conformance with ASME B31.3, "Process Piping".

(6) Underground piping systems shall include piping in tank sumps, **transition sumps** and **dispenser sumps**.

Special materials

4.5.2.2. Where problems of corrosion, contamination or sanitation or standards of purity require special materials, it is permitted to use non-metallic materials for piping, valves and fittings.

Subsection 4.5.3. Corrosion Protection of Piping Systems

Corrosion protection

4.5.3.1. (1) Underground metallic piping systems in contact with the soil or groundwater shall be protected against corrosion in conformance with

- (a) CAN/ULC-S603.1, "Standard for External Corrosion Protection Systems for Steel Underground Tanks for Flammable and Combustible Liquids", or
- (b) NACE SP0169, "Control of External Corrosion on Underground or Submerged Metallic Piping Systems".

(2) Except as provided in Sentence (1), all exposed or underground piping, valves, couplings, flanges and bolts that are fabricated of any ferrous substance shall be thoroughly coated with a rust-resistant compatible material.

Subsection 4.5.4. Identification of Piping Systems

Identification

4.5.4.1. (1) Pipelines for **flammable liquids** or **combustible liquids** shall be marked with the contents of the line, and these markings shall be maintained in a clearly legible form.

(2) Piping for **flammable liquids** or **combustible liquids** shall not be painted red.

(3) Transfer points in piping systems for **flammable liquids** and **combustible liquids** shall be identified in conformance with CFA 1990, “Using the Canadian Fuels Colour-Symbol System to Mark Equipment and Vehicles for Product Identification”.

(4) Transfer points that were identified in conformance with the requirements of this Code on or before December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Sentence (3).

Documentation

4.5.4.2. (1) Documentation on the piping systems for **flammable liquids** or **combustible liquids**, including the tank and pumping arrangements, shall be made available to the **fire department** upon request.

(2) Documents referred to in Sentence (1) shall be kept at two separate locations so that one copy remains readily available in the event the other is inaccessible due to fire.

Subsection 4.5.5. Joints in Piping Systems

Threaded joints

4.5.5.1. Threaded joints in piping systems for **flammable liquids** or **combustible liquids** shall be made using joint compound or polytetrafluoroethylene tape conforming to CAN/ULC-S642, “Standard for Compounds and Tapes for Threaded Pipe Joints”.

Welded piping

4.5.5.2. (1) Welding of piping for **flammable liquids** or **combustible liquids** shall conform to Section 5.17 and to API STD 1104, “Welding of Pipelines and Related Facilities”.

(2) **Flammable liquid** or **combustible liquid** piping welds that are currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Sentence (1).

(3) Flanged joints for piping shall be provided in welded systems at intervals that will facilitate dismantling and avoid subsequent in-place hot works operations.

Flanged joints

4.5.5.3. (1) Except as permitted in Sentence (2), flanged joints for piping shall be made with forged or cast steel flanges designed, constructed and installed in conformance with ASME B16.5, “Pipe Flanges and Flanged Fittings NPS ½ Through NPS 24 Metric/Inch Standard”.

(2) Bronze flanges for 50 mm diameter or smaller size piping referred to in Article 4.5.5.2. are permitted to be used where copper and brass piping is permitted.

Bolting materials

4.5.5.4. Bolting materials for flanged connections in steel piping systems for **flammable liquids** or **combustible liquids** shall be of alloy steel equivalent to ASTM A193/A193M, “Standard Specification for Alloy-Steel and Stainless Steel Bolting for High Temperature or High Pressure Service and Other Special Purpose Applications”, Grade B-7.

Gaskets

4.5.5.5. Gaskets in flanged connections shall be of a material resistant to the liquid being carried and capable of withstanding temperatures of at least 650°C without damage that would impair their function.

Mechanical connections

- 4.5.5.6. (1) Mechanical connections in underground piping systems shall
- (a) be readily accessible for **inspection** and maintenance,
 - (b) not be in direct contact with the soil, and
 - (c) be provided within a **transition sump**.

Penetrations into sumps

- 4.5.5.7. (1) All penetrations into a sump shall be situated at least 50 mm from the bottom of the sump.
- (2) A penetration into a sump that met the requirements of this Code on December 31, 2025, as it read at the time, is deemed to comply with Sentence (1) if both the penetration and the sump are currently in use.

Subsection 4.5.6. Location and Arrangement of Piping

Construction

- 4.5.6.1. (1) Except for vent risers and vertical fill piping systems, underground piping systems shall be of double-walled construction.
- (2) Underground piping systems that are installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Sentence (1) if the piping does not leak.

Location

- 4.5.6.2. (1) Piping shall be installed outdoors whenever possible and located so it will not create a hazard to **buildings** or equipment.
- (2) Where piping for **flammable liquids** or **combustible liquids** is installed within a **building**, the length of piping shall be as direct and as short as practicable.
- (3) It is not permitted to use any portion of a piping system in a manner that could damage the piping system.
- (4) Vent piping and connections for filling and emptying storage tanks shall be located in conformance with Section 4.3.
- (5) Piping systems shall be used only for the transfer of products.

Supports for aboveground outdoor piping

- 4.5.6.3. (1) Aboveground outdoor piping shall be supported and arranged to prevent excessive vibration and stress on equipment connected to it.
- (2) Where vehicular, watercraft or floatplane impact or physical damage is possible, protective guarding devices shall be provided for aboveground outdoor piping.
- (3) Aboveground piping systems shall be supported such that they are not in direct contact with the surface of the ground.

Arrangement of aboveground outdoor piping

- 4.5.6.4. (1) Aboveground outdoor piping shall not be located
- (a) on the exterior of walls except on those of **noncombustible construction**, or
 - (b) above windows and doors.
- (2) Aboveground outdoor piping shall not be located above roofs except above roofs of impermeable and **noncombustible construction**, with provision for accidental spillage provided in conformance with Subsection 4.1.6.

(3) Where aboveground piping crosses roadways or railway sidings, ample overhead clearance and warning signs indicating the clearance height shall be provided.

(4) Piping passing through the secondary containment walls of an aboveground **storage tank** shall be designed to prevent excessive stress resulting from settlement or fire exposure.

Arrangement of underground piping

4.5.6.5. (1) Underground piping shall be located so it will not be damaged as a result of vibrations or settling of an adjacent **building** or structure.

(2) Underground piping shall be located not less than 300 mm away from the foundations of any **building** or structure, except where such piping enters the **building** as permitted in Article 4.5.6.8.

(3) Piping passing under railway tracks shall be installed in conformance with TC 2001, “Standards Respecting Pipeline Crossings Under Railways”.

(4) Piping adjacent to railway tracks shall be installed in conformance with the **Flammable Liquids Bulk Storage Regulations**, C.R.C., c1148, made under the **Railway Safety Act (Canada)**.

Installation of underground piping

4.5.6.6. (1) Underground piping shall be

- (a) supported on
 - (i) undisturbed or compacted soil, or
 - (ii) not less than 150 mm of clean sand, pea gravel or clean crushed stone, and
- (b) backfilled on the top and sides with not less than
 - (i) 300 mm of pea gravel or clean crushed stone, or
 - (ii) 300 mm of clean sand, free of cinders and stones, and compacted in layers not more than 300 mm thick.

Piping in service tunnels

4.5.6.7. Piping for **flammable liquids** or **combustible liquids** shall not be located in service tunnels that are used for pedestrian traffic other than maintenance personnel.

Piping at entrances to buildings

4.5.6.8. (1) Piping for **flammable liquids** or **combustible liquids** shall be located aboveground where the piping enters a **building**.

(2) Piping referred to in Sentence (1) shall be provided with inside and outside shut-off valves.

(3) Where piping referred to in Sentence (1) passes through a wall that would restrict the expansion or contraction of the piping, pipe sleeves shall be provided at the wall penetration to facilitate such movement.

Indoor piping

4.5.6.9. (1) Indoor piping for **flammable liquids** or **combustible liquids** shall either be supported overhead or be located in trenches conforming to Article 4.5.6.10.

(2) Piping referred to in Sentence (1) shall not be installed under combustible flooring.

(3) Piping in trenches referred to in Sentence (1) shall be covered with noncombustible material.

Piping in trenches

4.5.6.10. (1) Where indoor piping for **flammable liquids** or **combustible liquids** is installed in trenches, a trapped drainage system conforming to Subsection 4.1.6. shall be provided.

(2) When piping referred to in Sentence (1) contains Class I liquids, the trench shall be provided with ventilation designed to prevent the accumulation of flammable vapours in accordance with Sentence 6.9.1.2.(2) of Division B of the **Building Code**, as it read on January 1, 2025.

Overhead piping

4.5.6.11. (1) Overhead piping for **flammable liquids** or **combustible liquids** shall be installed close to the ceiling or beams or along walls not less than 1.8 m above the floor to protect it against mechanical damage.

(2) Where practicable, overhead piping referred to in Sentence (1) shall be supported from **building** framing members.

(3) In **buildings** of steel frame construction, piping referred to in Sentence (1) shall be fastened to steel beams or columns by pipe hangers attached to the flanges.

(4) Piping under concrete ceilings shall be suspended with the use of through bolts or expansion shields.

Supports for overhead piping

4.5.6.12. (1) Piping shall be supported on pipe hangers or other supports so that allowable stresses in the pipe are not exceeded.

(2) Anchors of the expansion shield type used to suspend piping shall not be used to suspend piping from unsound or lightweight concrete or from gypsum assemblies.

Protection of pipe risers

4.5.6.13. (1) Exposed pipe risers shall be protected against mechanical damage by

- (a) installing such risers
 - (i) adjacent to walls or pilasters,
 - (ii) between flanges of steel columns, or
 - (iii) within securely anchored larger perforated pipe, and
- (b) providing mechanical guards where the risers are exposed to mobile equipment.

Provision for expansion and contraction

4.5.6.14. (1) In the design of piping systems for **flammable liquids** or **combustible liquids**, provision shall be made for the expansion and contraction of the piping system and of the product it conveys.

- (2) To prevent excessive stresses resulting from vibration, settling or temperature changes
 - (a) flexible non-metallic hose connectors conforming to CAN/ULC-S633, “Standard for Flexible Connector Piping for Fuels Connectors for Flammable and Combustible Liquids”, are permitted to be used where necessary in underground piping systems carrying **flammable liquids** or **combustible liquids**,
 - (b) flexible metallic and non-metallic pipe and fittings conforming to CAN/ULC-S679, “Standard for Metallic and Nonmetallic Underground Piping for Flammable and Combustible Liquids”, are permitted to be used where necessary in underground piping systems carrying **flammable liquids** or **combustible liquids**, or
 - (c) flexible metallic hose connectors conforming to ULC/ORD-C536, “Flexible Metallic Hose”, are permitted to be used where necessary in aboveground and underground piping systems carrying **flammable liquids** or **combustible liquids**.

Subsection 4.5.7. Valves in Piping Systems

Design

4.5.7.1. (1) Except as provided in Sentences (2) and (3), valves in piping systems for **flammable liquids** or **combustible liquids** shall be designed to accommodate the temperatures and pressures of those systems and shall conform to ULC/ORD-C842, “Guide for the Investigation of Valves for Flammable and Combustible Liquids”.

(2) Every hose nozzle valve shall conform to CAN/ULC-S620, “Standard for Hose Nozzle Valves for Flammable and Combustible Liquids”.

(3) Every emergency valve shall conform to CAN/ULC-S651, “Standard for Emergency Valves for Flammable and Combustible Liquids”.

(4) Valves that are installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Sentences (1), (2) and (3) if the valves are not leaking and are constructed of material that is in conformance with Article 4.5.2.1.

Shut-off valves

4.5.7.2. (1) Shut-off valves shall be provided in all **flammable liquid** or **combustible liquid** piping and pumping systems.

(2) Where practicable, valves referred to in Sentence (1) shall be located outdoors or be immediately accessible from outdoors.

(3) Except as permitted in Sentence (4), steel shut-off valves shall be provided

- (a) at connections to all aboveground **storage tanks**,
- (b) on supply piping where it enters **buildings** or structures,
- (c) on branch lines from the main supply line,
- (d) on supply lines at dispensing locations,
- (e) to isolate one part of a piping system from another, and
- (f) to isolate meters and air eliminators.

(4) Stainless steel, monel metal or lined steel bodied valves are permitted to be used when special conditions warrant their use.

Diaphragm valves

4.5.7.3. Diaphragm valves shall have no direct connections between the liquid and air sections that might permit leakage of the liquid past the packing into the air lines.

Globe valves

4.5.7.4. Globe valves shall be arranged so that the packing is on the low pressure side.

Indicating valves

4.5.7.5. Rising stem or other indicating valves shall be used where necessary to determine whether the valves are open or shut.

Identification

4.5.7.6. (1) All valves shall be identified in conformance with CFA 1990, “Using the Canadian Fuels Colour-Symbol System to Mark Equipment and Vehicles for Product Identification”.

(2) Every identification tag shall be kept clean so that its colour and inscription are easily recognizable.

(3) A valve that was identified in conformance with the requirements of this Code on or before December 31, 2025, as it read at the time, and that continues to meet those requirements is deemed to comply with Sentence (1).

Subsection 4.5.8. Heating of Piping Systems

Design

4.5.8.1. Heating equipment for piping systems containing **flammable liquids** or **combustible liquids** shall be designed not to overheat or create an ignition source for the liquids being heated.

Steam heating

4.5.8.2. (1) **Flammable liquid** and **combustible liquid** piping is permitted to be heated by steam lines provided the minimum steam temperature and pressure to make the liquid fluid are used and Sentences (2) and (3) are complied with.

(2) A pressure regulator shall be provided in the steam line with a relief valve on the downstream side of the regulator.

(3) Piping and steam lines shall be enclosed in insulation conforming to the **Building Code**.

Electrical heating cables

4.5.8.3. Electrical heating cables including electrical induction heating shall conform to Subsection 4.1.4.

Thermal electrical conduction heating

4.5.8.4. (1) Thermal electrical conduction heating conforming to Sentence (2) is permitted to be used by passing a low-voltage alternating current through the pipe.

(2) Systems permitted in Sentence (1) shall be installed and **tested** as complete units and shall conform to the following:

- (a) unheated sections of piping shall be isolated from heated sections by means of nonconductive fittings,
- (b) thermostatic controls, high temperature limit controls and fuses shall have the lowest practical rating to ensure satisfactory operation,
- (c) all parts of the piping and fittings shall be enclosed by insulating coverings, and
- (d) switches, transformers, contactors and other spark-producing equipment shall be located in an area not subject to flammable vapours.

(3) Upon completion of installation, systems permitted in Sentence (1) shall be **tested** to ensure that all components are functioning as intended.

Open flames

4.5.8.5. (1) Except as provided in Sentence (2), the use of open flames as a heat source shall not be permitted for heating piping for **flammable liquids** or **combustible liquids**.

(2) Open flames may be used to heat piping for **flammable liquids** or **combustible liquids** if the heating is carried out in **furnaces** or ovens that comply with NFPA 86, "Standard for Ovens and Furnaces".

Subsection 4.5.9. Methods of Transfer in Piping Systems

Location of outdoor pumps

4.5.9.1. (1) Pumps for **flammable liquid** or **combustible liquid** piping systems installed aboveground and outside of **buildings** shall be located not less than

- (a) 3 m from the property line, and
- (b) 1.5 m from **building** openings.

Pump houses and pump rooms

- 4.5.9.2. (1) Pumps located indoors shall be in rooms built in conformance with Subsection 4.2.9.
- (2) Pump houses and pump rooms shall not be used for any purpose other than to serve the pumping equipment.

Pits

- 4.5.9.3. (1) Pits for subsurface pumps for piping systems or for piping connected to submersible pumps shall be designed to withstand the forces to which they may be subjected without causing damage to the system.
- (2) Pits provided in conformance with Sentence (1) shall not be larger than necessary for **inspection** and maintenance and shall be provided with a cover.

Control switches

- 4.5.9.4. Pumps for piping systems shall be provided with duplicate control switches to shut down the pumps in case of emergency, with one located in the operating area and the other at a remote location.

Hydraulic transfer systems

- 4.5.9.5. (1) Where **flammable liquids** or **combustible liquids** are transferred by water pressure as a result of displacement, such system shall not be used for liquids that are miscible in water.
- (2) All **pressure vessels** for hydraulic transfer systems referred to in Sentence (1) shall be constructed, installed and **tested** in conformance with ASME BPVC, “Boiler and Pressure Vessel Code”.
- (3) Hydraulic transfer systems referred to in Sentence (1) shall be designed to prevent water pressure in excess of the design pressure of the tank or piping.
- (4) Operating pressures shall be controlled by a constant-level float valve or a pressure-regulating valve on the water supply side of the hydraulic transfer system referred to in Sentence (1).
- (5) Hydraulic transfer systems referred to in Sentence (1) shall be arranged so that there is no water pressure on the system except when liquid is being discharged.
- (6) Check valves shall be provided for both water and **flammable liquid** or **combustible liquid** piping to prevent backflow in hydraulic transfer systems referred to in Sentence (1).

Inert gas transfer systems

- 4.5.9.6. (1) Where **flammable liquids** or **combustible liquids** are transferred as a result of displacement by the expansion of nitrogen, carbon dioxide or other inert gases, all **pressure vessels** involved shall be constructed, installed and **tested** in conformance with ASME BPVC, “Boiler and Pressure Vessel Code”.
- (2) Pressure regulators for inert gas transfer systems referred to in Sentence (1) shall be provided in the gas line to control the pressure of the gas at the minimum pressure required to force the liquid through the piping system at the required rate.
- (3) A relief valve with a slightly higher setting than the pressure required in Sentence (2) shall be provided on the downstream side of the regulator or on the tank.
- (4) Means of automatically shutting off the gas supply and bleeding the gas pressure in the event of fire shall be provided on all inert gas transfer systems referred to in Sentence (1).

Non-inert gas transfer

4.5.9.7. (1) Except as permitted in Sentence (2), the transfer of **flammable liquids** or **combustible liquids** in a closed piping system by means of compressed air or other non-inert gas pressure shall not be permitted.

(2) A non-inert gas pressure is permitted to be used in a closed piping system referred to in Sentence (1) provided

- (a) it is the vapour or gas of the **flammable liquid** or **combustible liquid** being transferred, or
- (b) it is a vapour or gas that will not support combustion reaction and is non-reactive with the **flammable liquid** or **combustible liquid** being transferred.

Subsection 4.5.10. Operating Procedures for Piping Systems

Procedures

4.5.10.1. Standard procedures for normal operation and for emergencies shall be given in printed form to all persons engaged in the operation of equipment for the transfer of **flammable liquids** or **combustible liquids** and shall be posted for convenient reference.

Training

4.5.10.2. (1) All persons concerned with transfer operations involving **flammable liquids** or **combustible liquids** shall be trained in

- (a) the procedures referred to in Article 4.5.10.1.,
- (b) the importance of constant attendance during all loading or unloading operations,
- (c) extinguishing procedures for fires involving **flammable liquids** and **combustible liquids**, and
- (d) the **flammable liquid** and **combustible liquid** colour coding and identification system required in Article 4.5.7.6.

(2) Persons engaged in the operation of equipment for the transfer of **flammable liquids** or **combustible liquids** shall be trained in the location, function and operation of valves used for the operation of fire protection equipment and manual emergency shut-off valves.

Emergency valves

4.5.10.3. Signs indicating the location of valves used for the operation of fire protection equipment and manual emergency shut-off valves shall be posted in conspicuous locations.

Portable extinguishers

4.5.10.4. At least one portable extinguisher having a rating of 80-B:C shall be provided in the vicinity of pumps and ancillary equipment used for the transfer of **flammable liquids** or **combustible liquids**.

Visual inspections

4.5.10.5. (1) A visual **inspection** routine for the prompt detection of obviously abnormal conditions shall be established and shall be performed at least once each shift.

(2) A visual **inspection** shall be made at least once during each day of operation of all aboveground piping systems, pumps and other ancillary equipment to detect leakage, and any leakage shall be repaired as quickly as practicable.

(3) Where necessary, flammable vapour indicators shall be used to detect leakage.

(4) Open flames and spark-producing devices shall not be used for leakage detection referred to in Sentence (2).

Operational tests

4.5.10.6. To ensure proper operation, frequent **inspections** and **tests** shall be made of all safety shut-off valves and other fire safety devices, with particular attention directed to normally open, fusible-link-operated valves, float valves and automatic controls.

Maintenance

4.5.10.7. (1) Except as provided in Sentence (6), maintenance shall not be carried out on piping systems while they are under pressure.

(2) If connections or piping are to be opened, the system shall be drained of **flammable liquids** and **combustible liquids**.

(3) Where equipment for handling **flammable liquids** or **combustible liquids** has to be repaired, it shall be removed and taken to maintenance areas when possible.

(4) Tags shall be attached to all valves on piping systems that are shut off for maintenance purposes to indicate that such valves are not to be opened.

(5) Piping that has been used for the transfer of **flammable liquids** or **combustible liquids** shall be removed or capped when it is no longer intended to be used.

- (6) The maintenance of pressurized piping systems shall be carried out in conformance with
- (a) API STD 1104, "Welding of Pipelines and Related Facilities",
 - (b) API RP 2200, "Repairing Crude Oil, Liquefied Petroleum Gas, and Product Pipelines", or
 - (c) API RP 2201, "Safe Hot Tapping Practices in the Petroleum and Petrochemical Industries".

SECTION 4.6 FUEL-DISPENSING STATIONS

Subsection 4.6.1. Scope

Application

4.6.1.1. (1) This Section applies to the storage, handling and use of **flammable liquids**, **combustible liquids** and **dangerous goods** classified as flammable gases at **fuel-dispensing stations**.

(2) Except as provided in this Section, the storage and dispensing of **dangerous goods** classified as flammable gases at **fuel-dispensing stations** shall conform to

- (a) CSA B108, "Natural gas refuelling stations installation code",
- (b) CSA B149.1, "Natural Gas and Propane Installation Code", and
- (c) CSA B149.2, "Propane Storage and Handling Code".

(3) Requirements of this Section that pertain to the location of dispensers, **storage tanks**, pumps, piping and their ancillary equipment inside **buildings** shall not apply to a canopy that is open on not less than 75% of its perimeter.

Subsection 4.6.2. Storage and Handling

Outside aboveground storage tanks

4.6.2.1. (1) Except as provided in Sentences (2) to (5), the installation of outside aboveground **storage tanks** at **fuel-dispensing stations** shall be in conformance with Subsection 4.3.2.

(2) Except as permitted in Sentence (3), outside aboveground **storage tanks** at **fuel-dispensing stations** shall have an individual capacity of not more than 80000 L, and their aggregate capacity shall not exceed 200000 L.

- (3) The individual capacity of outside aboveground **storage tanks** at **fuel-dispensing stations** is permitted to exceed the individual capacity limit of 80000 L required in Sentence (2), provided
- (a) they conform to ULC-S655, “Aboveground Protected Tank Assemblies for Flammable and Combustible Liquids”, and
 - (b) their aggregate capacity does not exceed 200000 L.
- (4) Outside aboveground **storage tanks** at **fuel-dispensing stations** shall be provided with
- (a) physical protection against collision damage,
 - (b) measures to prevent unauthorized access to the **storage tank** and its ancillary equipment,
 - (c) measures to contain accidental spillage in conformance with Subsection 4.3.7.,
 - (d) an overfill protection device in conformance with Sentence 4.3.1.8.(2), where a tight-filled connection is provided, and
 - (e) where the piping is connected to the **storage tank** at a point that is lower than the maximum fill level, an external valve to prevent gravity discharge in the event the piping is severed.
- (5) In cases where a compartmentalized tank is used, the entire tank shall be treated as one tank with the aggregate of all compartments totalling the total capacity of that tank.

Containers

4.6.2.2. All packaged **flammable liquid** and **combustible liquid** products stored or sold at a **fuel-dispensing station** shall be in **closed containers** conforming to Article 4.2.3.1., distinctly marked with the generic name of the liquid they contain.

Piping

- 4.6.2.3. (1) All piping for **flammable liquids** or **combustible liquids** at a fuel-dispensing station shall be in conformance with Article 4.5.2.1.
- (2) Joints in piping systems shall comply with Subsection 4.5.5.
 - (3) Underground piping systems shall comply with Sentence 4.5.6.1.(1).
 - (4) Piping shall be supported and backfilled in accordance with the manufacturer’s instructions.
 - (5) In the design of the piping system, provisions shall be made for the expansion, contraction, vibration, settling and temperature changes of piping in accordance with Article 4.5.6.14.

Corrosion protection for piping

4.6.2.4. All piping, valves and fittings at a **fuel-dispensing station** shall be protected against corrosion in conformance with Article 4.5.3.1.

Piping supports and guards

4.6.2.5. Piping shall be firmly supported and protected by means of guarding devices where necessary to prevent vehicular, watercraft or floatplane impact damage or other physical damage.

Pits

4.6.2.6. Pits for subsurface pumps or for piping connected to submersed pumps shall conform to Article 4.5.9.3.

Subsection 4.6.3. Dispensing Systems

Dispensers

4.6.3.1. Fixed dispensers for **flammable liquids** or **combustible liquids** shall conform to CSA B346-M, “Power-Operated Dispensing Devices for Flammable Liquids”.

Dispenser sumps

4.6.3.2. **Dispenser sumps** shall conform to the construction and performance requirements of ULC/ORD-C107.21, “Under-Dispenser Sumps”.

Location

- 4.6.3.3. (1) Fixed dispensers for Class I liquids shall be installed outside **buildings** and not less than
- (a) 3 m from any right-of-way and any property line,
 - (b) 3 m from any propane gas dispenser,
 - (c) 1.5 m from any natural gas dispenser,
 - (d) 6 m horizontally from any fixed source of ignition,
 - (e) 6 m horizontally from any liquefied petroleum gas cylinder or **storage tank**, and
 - (f) 3 m from any **building** openings, other than those that serve as shelter for operating personnel and in which electrical installations conform to Article 4.1.4.1.
- (2) Fixed dispensers for Class II or IIIA liquids are permitted to be installed inside a **building** when
- (a) the **building** is not open to the public,
 - (b) the dispensers are located on the **first storey**,
 - (c) drainage is provided, and
 - (d) ventilation is provided in conformance with Subsection 4.1.7. of this Code and with the requirements for **storage garages** in Section 6.3 of Division B of the **Building Code**, as it read on January 1, 2025.
- (3) Class 1 liquid dispensers shall be located within a **building** or portion of a **building** that conforms to Subsection 3.3.5. of Division B of the **Building Code**.

Protection against collision damage

- 4.6.3.4. (1) Fixed dispensers shall be protected against collision damage by
- (a) a concrete island not less than 100 mm high, or
 - (b) posts or guardrails.

Marine fuel-dispensing stations

4.6.3.5. Dispensers at **marine fuel-dispensing stations** shall be in a location that will prevent watercraft or floatplane impact or other physical damage.

Subsection 4.6.4. Shut-off Devices***Location and identification***

- 4.6.4.1. (1)

A device to shut off power to all dispensers and pumps shall be provided at a location not less than 6 m and not more than 30 m away from the dispensers and pumps.

- (2) The device required in Sentence (1) shall be clearly identified and readily accessible to attendants and emergency responders.
- (3) Steel shut-off valves shall be provided at connecting outlets on aboveground **storage tanks**.

Self-service outlets

- 4.6.4.2. (1) Except as provided in Sentence (2) and in addition to the device required by Sentence 4.6.4.1.(1), an emergency shut-off switch to simultaneously stop the flow of fuel at all dispensers at

self-service outlets shall be located at the central control console described in Sentence 4.6.8.2.(2) so that it is readily accessible to the attendant.

(2) At card- or key-activated **self-service outlets**, the emergency shut-off switch required in Sentence (1) shall be readily accessible to the customer.

Marine fuel-dispensing stations

4.6.4.3. At **marine fuel-dispensing stations**, a readily accessible valve shall be provided in each pipeline at or within 7.5 m of the pier to shut off the supply from shore.

Subsection 4.6.5. Delivery Hose and Nozzles

Delivery hose

4.6.5.1. (1) Delivery hose shall conform to CAN/ULC-S612, “Standard for Hose and Hose Assemblies for Flammable and Combustible Liquids”.

(2) Except as permitted in Sentences (3) and (4), hose through which **flammable liquids** or **combustible liquids** are dispensed at a fuel-dispensing station shall be restricted to a maximum extended length of 4.5 m.

(3) Where a retracting mechanism is used, a maximum extended length of 6 m shall be permitted.

(4) At **marine fuel-dispensing stations** or at card- or key-activated dispensers, the length of extended hose is permitted to exceed the values in Sentences (2) and (3).

Hose nozzle valves

4.6.5.2. (1) Every hose nozzle valve through which a Class I or II liquid is dispensed by a motorized dispenser into a vehicle tank shall

- (a) be automatic closing as required in Sentence (2), and
- (b) conform to CAN/ULC-S620, “Standard for Hose Nozzle Valves for Flammable and Combustible Liquids”.

(2) Except as provided in Sentences (3) to (5), a hose nozzle valve shall be constructed so that the valve

- (a) can be kept open only by the continuous application of manual pressure, or
- (b) is equipped with a hold-open device that is an integral part of the nozzle and that will
 - (i) allow automatic dispensing,
 - (ii) automatically shut off when the vehicle tank is filled, and
 - (iii) shut off if the nozzle is dropped or falls from the fill pipe.

(3) A hose nozzle valve at a **marine fuel-dispensing station** shall be of the type without a hold-open device, in conformance with Clause (2)(a).

(4) When a hose nozzle valve with a hold-open device is used at an attended self-service outlet, a break-away coupling conforming to CAN/ULC-S644, “Standard for Emergency Breakaway Fittings for Flammable and Combustible Liquids”, shall be provided.

(5) When the flow of liquid can be stopped other than by the hose nozzle valve, a hose nozzle valve with a hold-open device is permitted to be used only if it is provided with a device that will automatically close the hose nozzle valve upon a drop of pressure in the dispensing hose.

Subsection 4.6.6. Remote Pumping Systems

Application

4.6.6.1. This Subsection shall apply to systems for dispensing **flammable liquids** or **combustible liquids** where such liquids are transferred from bulk storage to individual or multiple dispensers by pumps located elsewhere than at the dispensers.

Pumps and control equipment

4.6.6.2. (1) Pumps, including associated control equipment, shall be designed so that the system will not be subject to pressures above the design working pressure.

(2) Pumps shall be securely anchored and protected against damage from vehicles.

Emergency valves

4.6.6.3. (1) An emergency valve conforming to CAN/ULC-S651, “Standard for Emergency Valves for Flammable and Combustible Liquids”, shall be installed in the supply line so that the shear point of the valve is at a level not higher than the base of the dispenser nor more than 25 mm below it.

(2) The emergency valve required in Sentence (1) shall be maintained in operating condition and serviced at intervals not greater than 12 months.

Pump location

4.6.6.4. (1) Pumps installed aboveground and outside **buildings** shall be located not less than

- (a) 3m from any property line, and
- (b) 1.5 m from any **building** opening.

(2) When an outside pump location is impractical, pumps are permitted to be installed inside buildings or in pits as provided in Article 4.6.2.6.

Marine fuel-dispensing stations

4.6.6.5. (1) Except as permitted in Sentence (2), tanks and pumps not integral with the dispenser at **marine fuel-dispensing stations** shall be located on the shore or on a pier of the solid-fill type.

(2) Where shore locations would result in excessively long supply lines to the dispenser, **storage tanks** are permitted to be installed on a pier provided that

- (a) the applicable portions of Subsection 4.3.7. relating to spacing, secondary containment and piping are complied with, and
- (b) the quantity stored does not exceed 5000 L aggregate capacity.

(3) No **storage tank** at a **marine fuel-dispensing station** shall be located closer than 4.5 m horizontally from the normal annual high-water mark.

(4) **Storage tanks** located on shore and supplying **marine fuel-dispensing stations** are permitted to be located aboveground where rock or a high water table make underground tanks impracticable.

(5) Where **storage tanks** at a **marine fuel-dispensing station** are elevated above the dispenser, an automatically operated valve that is designed to open only when the dispenser is being operated, so as to prevent gravity draining of the tank in the event of a rupture of the supply line to the dispenser, shall be provided at the **storage tank** outlet, positioned adjacent to and outside the valve specified in Article 4.3.6.1.

(6) Piping between **storage tanks** located on shore and dispensers at a **marine fuel-dispensing station** shall conform to Section 4.5, except that where dispensing is from a floating structure, it is permitted to use suitable lengths of flexible hose designed in conformance with good engineering practice between the piping on shore and the piping on the floating structure.

Subsection 4.6.7. Spill Control

Spill control

- 4.6.7.1. (1) Areas where **flammable liquids** or **combustible liquids** are dispensed shall be designed to
- (a) be able to handle accidental spillage in conformance with Subsection 4.1.6., and
 - (b) control a spill of not less than 1000 L.

Subsection 4.6.8. Supervision and Dispensing Procedures

Attendants

4.6.8.1. (1) Except as provided in Sentences (2) and (5), every **fuel-dispensing station** shall have at least one attendant referred to in Article 4.6.8.5. on duty when the station is open for business.

(2) **Fuel-dispensing stations** that do not serve the general public do not require an attendant.

(3) Except as permitted at **self-service outlets**, a qualified attendant shall be in constant control of the dispensing of Class I and II liquids into the fuel tanks of motor vehicles, watercraft or floatplanes, or into containers.

(4) Duties of attendants and fuel-dispensing procedures, as stated in Articles 4.6.8.5. and 4.6.8.6., shall be posted at every **fuel-dispensing station**.

(5) At **fuel-dispensing stations** that offer both attended service and self-service, the attendant required in Sentence (1) is permitted to dispense **flammable liquids** or **combustible liquids** at an attended service dispenser, provided that there is an additional attendant supervising the activities at the self-service dispensers from a location in close proximity to one of the emergency shut-off devices required in Sentences 4.6.4.1.(1) and 4.6.4.2.(1).

Self-service outlets

4.6.8.2. (1) Instructions for the operation of dispensers in **self-service outlets** shall be posted in a conspicuous location.

(2) A control console shall be provided at **self-service outlets** within 25 m of all dispensers so that the attendant has an unobstructed view of all units at the same time.

(3) The control console referred to in Sentence (2) shall be equipped to regulate the operation of each dispenser.

(4) A 2-way communication system between the control console and each pump island shall be provided at **self-service outlets**.

Special dispensers

4.6.8.3. Except as provided in Article 4.6.8.4. for card- or key-activated equipment, special dispensers including coin-operated, card-operated and preset units, shall not be permitted at **self-service outlets** unless there is at least one qualified attendant on duty for each 12 hoses that can be operated simultaneously while the outlet is open to the public.

Card- or key-activated dispensers

4.6.8.4. (1) Card- or key-activated dispensers are permitted at unattended **self-service outlets** and **fuel-dispensing stations** that are not open to the general public in conformance with Sentences (2) to (6).

(2) Except as provided in Sentences (3) to (6), the installation of card- or key-activated dispensers shall conform to the requirements for **self-service outlets** and **fuel-dispensing stations** in this Section.

- (3) Operation of card- or key-activated dispensers shall be restricted to persons authorized by the supply agent to possess a card or key to operate the dispensers.
- (4) Clearly legible operating instructions, visible at all times, shall be posted at every dispenser island.
- (5) A telephone or other clearly identified means to notify the **fire department** shall be provided in a location readily accessible to the user.
- (6) Emergency instructions, including the telephone number of the local **fire department**, shall be conspicuously posted to advise the user, in the event of a spill or accident,
 - (a) to use the emergency shut-off switch required in Article 4.6.4.2., and
 - (b) to call the **fire department**.

Duties of attendants

- 4.6.8.5. (1) Attendants on duty at **fuel-dispensing stations** shall
 - (a) supervise the dispensing of **flammable liquids** and **combustible liquids**,
 - (b) activate the controls to permit the dispensing of fuel at an individual dispenser only after the customer at the unit is ready to activate the nozzle,
 - (c) prevent the dispensing of **flammable liquids** and **combustible liquids** into containers that
 - (i) do not conform to Article 4.2.3.1., or
 - (ii) are in a vehicle,
 - (d) take appropriate measures to prevent sources of ignition from creating a hazard at the dispensers,
 - (e) take appropriate action in the event of a spill to reduce the risk of fire,
 - (f) shut off the power to all dispensers in the event of a spill or fire, and
 - (g) perform routine visual inspections in accordance with Article 4.5.10.5.
- (2) In addition to the requirements in Sentence (1), attendants on duty at **marine fuel-dispensing stations** shall
 - (a) activate the controls to permit the dispensing of fuel at an individual dispenser only after all ports and hatches on the watercraft have been closed, and
 - (b) ensure that containers for **flammable liquids** and **combustible liquids**
 - (i) are not filled beyond their safe filling level, and
 - (ii) are filled only after they have been removed from the watercraft or floatplane.
- (3) Attendants shall be trained on how to conduct their duties.

Fuel-dispensing procedures

- 4.6.8.6. (1) Except as provided in Sentence (2), **flammable liquids** and **combustible liquids** shall not be dispensed into the fuel tank of a motor vehicle, watercraft or floatplane while the engine is running.
- (2) It is permitted to dispense a Class II or IIIA liquid into the fuel tank of a motor vehicle while its engine is running provided it is dispensed not less than 6 m away from any Class I liquid dispenser.
- (3) Class I and II liquids shall not be dispensed at a **fuel-dispensing station** into the fuel tank of a motor vehicle while any part of the motor vehicle or any vehicle attached to it is on a street.
- (4) Every person dispensing **flammable liquids** and **combustible liquids** shall
 - (a) take precautions to prevent overflow or spillage of the liquid being dispensed,
 - (b) not knowingly overfill the fuel system,
 - (c) except as otherwise stated in Article 4.6.8.5., in the event of spillage, immediately apply an absorbent material to soak up the spillage in conformance with Article 4.1.6.3.,
 - (d) not dispense Class I or II liquids in proximity to open sources of ignition,
 - (e) not use any object or device that is not an integral part of the hose nozzle valve assembly to maintain the flow of fuel, and
 - (f) not dispense the liquids into containers that are in a vehicle, watercraft or floatplane.

Sources of ignition

4.6.8.7. Smoking and non-fixed sources of ignition shall not be permitted within 7.5 m of a dispenser at a **fuel-dispensing station**.

Signs

4.6.8.8. (1) At least one weather-resistant sign conforming to Sentences (2) to (4) shall be provided for each dispenser in a location visible to every driver approaching the dispenser.

(2) The sign required in Sentence (1) shall indicate that smoking is not permitted in the vicinity of the dispenser and that the ignition must be turned off while the vehicle is being refuelled.

(3) The sign required in Sentence (1) shall

(a) have a minimum dimension of 200 mm, and

(b) except as permitted in Sentence (4), have letters not less than 25 mm high.

(4) The sign required in Sentence (1) is permitted to display the international “No Smoking – Ignition Off” symbol not less than 100 mm in diameter.

Training procedures

4.6.8.9. Persons involved in the transfer operations of **flammable liquids** or **combustible liquids** shall be trained in accordance with Article 4.5.10.2.

Subsection 4.6.9. Fire Prevention and Protection

Portable extinguishers

4.6.9.1. At least two portable extinguishers, each having a rating of not less than 40-B:C, shall be provided at every **fuel-dispensing station**.

Absorbent materials

4.6.9.2. Absorbent material to soak up liquid spillage shall be provided for use by attendants at **fuel-dispensing stations** in conformance with Article 4.1.6.3.

SECTION 4.7 BULK PLANTS

Subsection 4.7.1. Scope

Application

4.7.1.1. This Section shall apply to that portion of a property where **flammable liquids** or **combustible liquids** are received in bulk quantities and are stored or handled for the purpose of being distributed.

Subsection 4.7.2. Storage

Storage

4.7.2.1. (1) **Flammable liquids** and **combustible liquids** shall be stored in

(a) **closed containers**, in conformance with Article 4.7.2.4., or

(b) **storage tanks**, in conformance with Section 4.3.

Storage tanks

4.7.2.2. At bulk plant rail loading and unloading facilities, the minimum distance from a **storage tank** to a railway line shall be in conformance with the **Flammable Liquids Bulk Storage Regulations**, C.R.C., c1148, made under the **Railway Safety Act (Canada)**.

Hydraulic pressure shock

4.7.2.3. Bulk **storage tanks**, piping, pumps, valves and associated components shall be designed, installed and maintained to accommodate hydraulic pressure shock on the system.

Container storage

4.7.2.4. (1) Containers for **flammable liquids** or **combustible liquids** stored indoors shall be stored in conformance with Subsection 4.2.7.

(2) Containers for **flammable liquids** or **combustible liquids** stored outdoors shall be stored in conformance with Subsection 4.2.11., except that the distance between the piles and property lines and the distance between piles need not apply when the containers are stored in an area that does not present a hazard to neighbouring property.

Spill control

4.7.2.5. An outdoor storage area shall be designed to accommodate accidental spillage in conformance with Subsection 4.1.6.

Fencing

4.7.2.6. (1) The outdoor area occupied by aboveground **storage tanks**, container storage, ancillary equipment and unloading facilities shall be surrounded by a firmly anchored fence that is

- (a) substantially constructed to discourage climbing and unauthorized entry,
- (b) not less than 1.8 m high, and
- (c) provided with gates that shall be locked when the storage area is not staffed.

(2) When in a **fire department** access route, the gates required in Clause (1)(c) shall be of adequate width and design and in a location that readily permits the entry of **fire department** vehicles.

(3) Fencing that is installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continues to meet those requirements is deemed to comply with Sentence (2).

Subsection 4.7.3. Dispensing*Interconnection*

4.7.3.1. Dispensing systems for Class I liquids shall not be interconnected with dispensing systems for Class II and IIIA liquids.

Dispensing into vehicles

4.7.3.2. (1) Dispensers used by the general public to dispense **flammable liquids** or **combustible liquids** into the fuel tanks of vehicles shall not be located at a bulk plant unless separated by a fence or equivalent barrier from the area in which the bulk storage operations are conducted.

(2) Where a dispenser referred to in Sentence (1) is supplied from an aboveground **storage tank**

- (a) an automatically operated valve that is designed to open only when the dispenser is being operated shall be provided at the tank outlet, and
- (b) an emergency valve shall be provided for the dispenser in conformance with Sentence 4.6.6.3.(1).

Dispensing into metal containers or tanks

4.7.3.3. Class I liquids shall not be dispensed into a metal container or **storage tank** unless it is electrically connected in conformance with Article 4.1.8.2.

Dispensing and transfer inside buildings

4.7.3.4. Class I liquids shall be dispensed or transferred inside **buildings** only in conformance with Subsections 4.1.7. and 4.1.8.

Subsection 4.7.4. Loading and Unloading Facilities

Clearances

4.7.4.1. (1) At a loading or unloading facility for **tank vehicles** or tank cars, the horizontal distance from the fill stem to an aboveground **storage tank**, a **building** or a property line shall be not less than

- (a) 7.5 m for Class I liquids, and
- (b) 4.5 m for Class II and IIIA liquids.

(2) At bulk plant rail loading and unloading facilities, the minimum distance from a loading structure to a railway line shall be in conformance with the **Flammable Liquids Bulk Storage Regulations**, C.R.C., c1148, made under the **Railway Safety Act (Canada)**.

(3) **Buildings** for the shelter of persons or pumps shall be considered a part of the loading or unloading facility.

Multi-purpose facilities

4.7.4.2. When piping and pumping systems have been used for the transfer of either **flammable liquids** or **combustible liquids** at loading or unloading facilities, the system shall be cleaned of vapours before the other class of liquid is introduced.

Check valves

4.7.4.3. (1) Systems through which tank cars or **tank vehicles** discharge into aboveground **storage tanks** by means of pumps shall be provided with check valves to prevent backflow and the inadvertent mixing of liquids.

(2) Systems referred to in Sentence (1) shall be designed, installed and maintained to prevent leakage or spillage.

Control valves

4.7.4.4. (1) Valves installed to control the filling of **tank vehicles** or tank cars shall be of the self-closing type.

(2) Control valves referred to in Sentence (1) shall be held open manually, except where automatic devices are provided for shutting off the flow in order to prevent the overfilling of **tank vehicle** or tank car compartments.

Bonding and grounding

4.7.4.5. (1) Bonding, grounding and isolation components for protection against static charges during the loading or unloading of **tank vehicles** or tank cars shall be provided when transferring **flammable liquids** or **combustible liquids**.

(2) Where **flammable liquids** or **combustible liquids** are transferred from or into railway tank cars, the railway tracks shall be bonded throughout their length and permanently grounded in conformance with the

Railway Prevention of Electric Sparks Regulations, SOR/82-1015, made under the Canada Transportation Act (Canada).

(3) Bonding required in Sentence (1) shall consist of a metallic bond wire connected to the fill stem or to some part of the loading or unloading structure that is in electrical contact with the fill stem in conformance with Subsection 4.1.4.

(4) Bonding wires for **tank vehicles** shall be provided with a pull-off connector attached so as to be in electrical contact with the cargo tank of the **tank vehicle**.

(5) The bonding connection required in Sentence (1) shall be fixed to the **tank vehicle** or **storage tank** before dome covers are raised and shall remain in place until filling is completed and all dome covers have been closed and secured.

Downspouts

4.7.4.6. Except as provided in Sentence 4.1.8.2.(3), when **tank vehicles** or tank cars are filled with Class I or II liquids through the top of the tank, the fill pipe shall terminate within 150 mm of the bottom of the tank.

Subsection 4.7.5. Fire Protection

Portable extinguishers

4.7.5.1. At least two portable extinguishers, each having a rating of not less than 80-B:C, shall be provided at hazardous locations in bulk storage plants for **flammable liquids** and **combustible liquids**.

Subsection 4.7.6. Spill Control

Spill control

4.7.6.1. Facilities to control possible spills of **flammable liquids** or **combustible liquids** shall be provided at loading and unloading points, in conformance with Subsection 4.1.6.

SECTION 4.8 PIERS AND WHARVES

Subsection 4.8.1. Scope

Application

4.8.1.1. This Section applies to **flammable liquid** and **combustible liquid** installations on piers and wharves, but does not include **marine fuel-dispensing stations**.

Subsection 4.8.2. General

Clearances

4.8.2.1. (1) Piers and wharves where cargos of **flammable liquids** or **combustible liquids** are transferred in bulk quantities to or from tanks of marine vessels shall be not less than 30 m from

- (a) any bridge over a navigable waterway, and
- (b) an entrance to a superstructure of any vehicular or railroad tunnel under a waterway.

(2) The termination of fixed piping for loading and unloading **flammable liquids** or **combustible liquids** shall be not less than 60 m from a bridge or from an entrance to a tunnel.

Construction

4.8.2.2. The substructure and deck of a pier or wharf shall be designed for its intended use and shall be constructed of **heavy timber** or material that will provide adequate flexibility, resistance to shock, durability, strength and fire resistance.

Subsection 4.8.3. Storage Tanks

Installation

4.8.3.1. (1) Except as permitted in Sentences (2) and (3), **storage tanks** shall be installed on shore in conformance with Subsections 4.3.2. to 4.3.7.

(2) **Storage tanks** are permitted to be located in **buildings** on piers and wharves of solid-fill or **noncombustible construction** provided they conform to Subsections 4.3.13. to 4.3.15.

(3) **Storage tanks** are permitted to be buried in piers and wharves of the solid-fill type provided they conform to Subsections 4.3.8. to 4.3.12.

Subsection 4.8.4. Piping, Valves and Fittings

Installation and materials

4.8.4.1. The method of installation and materials used for piping, valves and fittings shall conform to Section 4.5.

Pipe supports

4.8.4.2. (1) Piping shall be properly supported and arranged to prevent excessive vibration or strain on equipment connected to it.

- (2) Piping supports shall consist of
- (a) wood having no dimension less than 140 mm,
 - (b) steel, or
 - (c) concrete.

(3) Where pipe is supported more than 1.2 m above the pier deck, piping supports shall have a minimum **fire-resistance rating** of 2 h.

Guards

4.8.4.3. In areas where general cargo is handled or where piping might be subject to physical damage from vehicles, watercraft or floatplanes, the piping shall be protected by means of guarding devices.

Flexible connections

4.8.4.4. Piping between the shore and piers or wharves shall be provided with swing joints or flexible connections designed in conformance with good engineering practice to permit the independent movement of the pier or wharf and shore piping without strain on the pipe.

Shut-off valves

4.8.4.5. A readily accessible valve to shut off the supply from shore shall be provided in each pipeline within 7.5 m of piers and wharves.

Access openings for inspection

4.8.4.6. (1) Access openings for **inspection** purposes below deck shall be provided for valves required in Article 4.8.4.5. and for connections to pipelines and suitable signs shall be posted indicating their locations.

(2) No freight or materials shall be placed on piers and wharves in such a manner as to obstruct the access openings required in Sentence (1).

Identification

4.8.4.7. Identification tags or labels of metal or other material impervious to water and to the **flammable liquids** or **combustible liquids** being transferred shall be attached to and maintained on all pipelines and control valves to designate their use.

Leakage testing

4.8.4.8. (1) Piping systems shall be **tested** for leakage in conformance with Section 4.4 before being put into service and before reactivation when used on a seasonal basis.

(2) Underground piping systems referred to in Sentence (1) shall be **tested** at intervals no greater than 12 months.

Subsection 4.8.5. Bonding and Grounding

Bonding and grounding

4.8.5.1. (1) Railway tracks on piers and wharves shall be bonded throughout their length and permanently grounded in conformance with the **Railway Prevention of Electric Sparks Regulations**, SOR/82-1015, made under the **Canada Transportation Act (Canada)**.

(2) Insulating joints shall be placed in all rails where entering upon the pier or wharf.

Subsection 4.8.6. Fire Protection

Portable extinguishers

4.8.6.1. (1) Portable extinguishers having a rating of 40-B:C shall be provided in the vicinity of Class I liquid pumps and fuel dispensers.

(2) Portable extinguishers shall be kept in the pump house or other suitable location where they will be accessible in the event of an emergency, but not accessible to the public.

(3) Where marine vessels are loading or unloading **flammable liquids** or **combustible liquids** or are being refuelled, portable extinguishers with a rating of not less than 40-B:C shall be placed on the pier or wharf in the vicinity of loading or unloading operations so that they are accessible in the event of a fire emergency.

(4) Portable extinguishers provided in conformance with Sentence (3) shall be in addition to those provided on board the marine vessels.

Training

4.8.6.2. Operating personnel shall be trained on how to summon the nearest **fire department** in the event of fire.

Subsection 4.8.7. Bulk Transfer Stations

Location

4.8.7.1. (1) Except as permitted in Sentence (2), the bulk transfer of **flammable liquids** or **combustible liquids** shall be permitted only on piers and wharves used exclusively for that purpose.

(2) Where it is not practicable to locate bulk transfer stations on separate piers and wharves, such stations are permitted to be located on general purpose piers and wharves, provided that guards or fences are installed around valves or pumping equipment to prevent entry of unauthorized persons.

Leakage and spill control

4.8.7.2. (1) Measures to accommodate possible leakage or spillage from hose couplings shall be provided in conformance with Subsection 4.1.6.

(2) Provision shall be made to prevent spillage resulting from the disconnection of hoses.

Hose connections

4.8.7.3. (1) Except as provided in Sentence (2), hose connections on piping shall be of the bolted flange type and all such connections shall be provided with shut-off valves.

(2) The use of cam-locking connections up to 105 mm in size shall be permitted.

(3) Hose connections shall not project beyond the face of piers and wharves.

Subsection 4.8.8. Cargo Hose

Cargo hose

4.8.8.1. (1) The transfer of **flammable liquids** or **combustible liquids** between tanks of marine vessels and piers or wharves shall be through

- (a) flexible cargo hose designed in conformance with good engineering practice, or
- (b) jointed tubing or piping
 - (i) suitable for the cargo to be transferred, and
 - (ii) designed to withstand the maximum design working pressure.

Maintenance and testing

4.8.8.2. Cargo hose shall be maintained in satisfactory operating condition and be pressure **tested**, at intervals not greater than 12 months, to 1.5 times the maximum working pressure but not less than 350 kPa (gauge).

Supports

4.8.8.3. Cargo hose shall be supported where it is not run on a solid foundation.

Subsection 4.8.9. Cargo Pumps

Design and installation

4.8.9.1. Cargo pumps shall be designed and installed in conformance with Subsection 4.5.9.

Pressure relief

4.8.9.2. Cargo pumps capable of producing pressures in excess of the safe working pressure of the cargo hose shall be provided with pressure relief devices such as return lines or relief valves.

Location

4.8.9.3. (1) Except as permitted in Sentence (2), cargo pumps shall be located

- (a) on shore or on piers and wharves either of **noncombustible construction** or of the solid-fill type, and
- (b) not less than 3 m from other **buildings** or structures.

- (2) Where it is not practicable to install cargo pumps as required in Sentence (1), they are permitted to be installed on piers and wharves of **combustible construction** if located in pump houses
- (a) conforming to Subsection 4.8.10., and
 - (b) located not less than 3 m from other **buildings**.

Subsection 4.8.10. Pump Houses

Construction

4.8.10.1. Pump houses shall be of **noncombustible construction** with floors that are chemically resistant to the liquid being handled, liquid-tight and equipped with curbs or flashings around the base of the wall not less than 100 mm in height to contain any spilled liquid.

Ventilation

4.8.10.2. Ventilation shall be provided in pump houses in conformance with Subsection 4.1.7.

Subsection 4.8.11. Transfer Operations

Supervision

4.8.11.1. (1) Transfer operations shall be carried out only under the continuous supervision of a person qualified to supervise such operations.

(2) Cargo shall not be transferred to or from the tank of a marine vessel unless sufficient personnel are on board to control the operation.

- (3) The person responsible for directing the operations shall
- (a) prior to the transfer of cargo, ascertain that no unauthorized repair work is being carried out on the pier or wharf and that there are no open flames in the vicinity,
 - (b) during the transfer of cargo, monitor the progress of the loading and unloading to prevent overflow, and
 - (c) **inspect** the hose and connections for leakage and, if leakage occurs, stop the operations.

Bonding and grounding

4.8.11.2. (1) Tanks of marine vessels shall be electrically connected to the shore piping prior to the connection of cargo hose, except when cathodic protection facilities are operating.

(2) Electrical connections to tanks of marine vessels shall be maintained until the cargo hose has been disconnected and any spillage has been removed.

Equipment

- 4.8.11.3. (1) Cargo hose shall be of adequate length to allow for movement of the marine vessel.
- (2) Gaskets shall be used in all hose joints and pipe couplings to prevent leakage.
- (3) Flanged joints shall be tightly bolted to prevent leakage.
- (4) Drip pans shall be placed under hose connections on piers and wharves, except where a sump pit or settling basin is provided.

Spill control

- 4.8.11.4. (1) When transfer operations are completed,
- (a) the valves on the hose connections shall be closed, and

- (b) unless the cargo hose is equipped with a device that automatically prevents liquid from draining from the hose upon its disconnection, the hose shall be drained so as not to create a fire or explosion hazard.

(2) Care shall be taken that no liquid is discharged on a pier or wharf or overboard during draining and emptying operations.

SECTION 4.9 PROCESS PLANTS

Subsection 4.9.1. Scope

Application

4.9.1.1. (1) Except as provided in Sentence (2), this Section applies to **process plants**, including **refineries**, that contain industrial processes involving **flammable liquids** or **combustible liquids**.

(2) This Section does not apply to **distilleries** covered in Section 4.10.

Subsection 4.9.2. Outdoor Processing Equipment

Location

4.9.2.1. (1) The location of outdoor processing equipment in **process plants** shall be based on its **flammable liquid** or **combustible liquid** capacity as described in Sentences (2) to (4).

(2) Except as provided in Sentence (4), outdoor processing equipment having emergency relief venting and a working pressure of not more than 17 kPa (gauge) shall be separated from property lines and **buildings** on the same property by distances

- (a) equal to those in Table 4.3.2.1. for stable liquids, and
- (b) 2.5 times those in Table 4.3.2.1. for **unstable liquids**.

(3) Except as provided in Sentence (4), outdoor processing equipment having emergency relief venting and a working pressure more than 17 kPa (gauge) shall be separated from property lines and **buildings** on the same property by distances

- (a) 1.5 times those in Table 4.3.2.1. for stable liquids, and
- (b) 4 times those in Table 4.3.2.1. for **unstable liquids**.

(4) Where protection is not provided against fires or explosions in processing equipment, the distances in Sentences (2) and (3) shall be doubled.

Subsection 4.9.3. Processing Buildings

Explosion venting

4.9.3.1. Except as provided in Article 4.9.4.2., where Class IA liquids or **unstable liquids** are processed within a room or a **building**, the room or **building** shall be designed to prevent critical structural and mechanical damage from an internal explosion in conformance with NFPA 68, “Standard on Explosion Protection by Deflagration Venting”.

Fire separations

4.9.3.2. Areas where **unstable liquids** are handled or where small scale unit chemical processes occur shall conform to Article 3.3.6.8. of Division B of the **Building Code**, as it read on January 1, 2025.

Basements and pits

4.9.3.3. (1) Process plants where Class I and II liquids are handled shall not have basements or covered pits.

(2) A **process plant** that has a **basement** or covered pit where Class I liquids are handled that is in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continues to meet those requirements is deemed to comply with Sentence (1).

Ventilation

4.9.3.4. Equipment used in a **building** and the ventilation of the **building** shall be designed so as to limit flammable vapour-air mixtures under normal operating conditions to the interior of equipment and to not more than 1.5 m from such equipment.

Subsection 4.9.4. Fire Prevention and Protection*Spill and vapour control*

- 4.9.4.1. (1) Processing equipment shall be designed and arranged to
- (a) prevent the unintentional escape of liquids and vapours, and
 - (b) minimize the quantity escaping in the event of accidental release.

(2) Measures to control spilled **flammable liquids** and **combustible liquids** shall be provided in conformance with Subsection 4.1.6.

Explosion protection

- 4.9.4.2. (1) Processing equipment where an explosion hazard is present shall be
- (a) designed to withstand the explosion pressure without damage to the equipment,
 - (b) provided with explosion venting in conformance with NFPA 68, “Standard on Explosion Protection by Deflagration Venting”, or
 - (c) provided with an explosion prevention system in conformance with NFPA 69, “Standard on Explosion Prevention Systems”.

Fire protection

4.9.4.3. (1) An evaluation of the fire and explosion risks shall be undertaken to consider the material properties, quantities, operating conditions, storage arrangement, transportation, process design, operating and maintenance procedures.

(2) The evaluation in Sentence (1) shall result in the identification of measures that will minimize fires and explosions from occurring and mitigate the effects of a fire or explosion should it occur.

(3) Measures identified in Sentence (2) shall be implemented in conformance with good engineering practices to prevent fires and explosions from occurring.

- (4) Measures identified in Sentence (2) may include but are not limited to
- (a) fire detection and alarm,
 - (b) special fire suppression systems conforming to the standards identified in Sentences 2.1.3.5.(3) and (4),
 - (c) sprinkler system conforming to NFPA 13, “Standard for Installation of Sprinkler Systems”,
 - (d) a reliable water supply with pressure and flow rates capable of meeting the fire demands,
 - (e) standpipe and hose systems connected to a reliable water supply located such that vessels, pumps and other equipment containing **flammable liquids** or **combustible liquids** can be reached with at least one hose stream,
 - (f) combination nozzles capable of discharging a straight steam, water spray or fog,

- (g) hydrants or monitor nozzles installed in accordance with NFPA 24, “Standard for the Installation of Private Fire Service Mains and their Appurtenances”,
- (h) fire-proofing to protect essential equipment and controls,
- (i) methods to effect an emergency shutdown of systems, and
- (j) methods to protect equipment and structures from fire exposure.

(5) The evaluation and measures shall be put in writing and kept in the **building** for review by the **Chief Fire Official**.

Emergency procedures

4.9.4.4. Emergency procedures conforming to Article 4.1.5.5. shall be established for **process plants**, including **refineries**.

SECTION 4.10 DISTILLERIES

Subsection 4.10.1. Scope

Application

4.10.1.1. (1) This Section applies only to those areas or **buildings** in **distilleries** where **distilled beverage alcohols** are concentrated, blended, mixed, stored or packaged.

(2) The storage, handling and use of **flammable liquids** or **combustible liquids** other than **distilled beverage alcohols** in a **distillery** shall conform to this Part.

(3) Where there is a conflict between the requirements of this Section and other requirements in this Part, this Section shall govern.

(4) Where there are conflicts between this Part and the regulations made under the **Excise Act (Canada)** with regard to security of the product and measurement methods, the **Excise Act (Canada)** shall govern.

Subsection 4.10.2. General

Building classification

4.10.2.1. (1) Except as provided in Sentence (2), **buildings** or parts of **buildings** in which **distilled beverage alcohol** is distilled, processed or stored in bulk shall be classified as **high-hazard industrial occupancies**.

(2) **Buildings** or parts of **buildings** used for the storage of **closed containers** of **distilled beverage alcohols** shall be classified as **medium-hazard industrial occupancies**.

Subsection 4.10.3. Storage Tanks and Containers

Design, fabrication and testing

4.10.3.1. **Storage tanks**, wooden vats, barrels, drums or containers used for the storage or processing of **distilled beverage alcohols** shall be designed, fabricated and **tested** for the anticipated maximum working pressure, operating temperature, internal corrosion conditions and structural stresses to which they could be subjected.

Supports, foundations and anchorage

4.10.3.2. (1) Supports, foundations and anchorage of **storage tanks** shall comply with Subsection 4.3.3., except that timber supports shall be permitted.

(2) **Storage tank** supports having less than a 2 h **fire-resistance rating** shall be protected by an automatic fire suppression system conforming to an applicable standard set out in Article 2.1.3.5.

(3) The area underneath any **storage tank** greater than 1.2 m in diameter shall be protected by an automatic fire suppression system conforming to an applicable standard set out in Article 2.1.3.5.

Storage tank vents

4.10.3.3. Normal and emergency vents shall be provided on **storage tanks** in conformance with good engineering practice.

Subsection 4.10.4. Storage*Storage tanks, drums and barrels*

4.10.4.1. Where more than 25000 L of **distilled beverage alcohol** in **storage tanks**, drums or barrels are stored inside **buildings**, such **buildings** shall be **sprinklered**.

Closed containers and storage aids

4.10.4.2. Storage of **closed containers** of **distilled beverage alcohols**, packaging materials and empty bottles, drums, barrels and pallets shall be in conformance with Part 3.

Subsection 4.10.5. Piping and Pumping Systems*Design and installation*

4.10.5.1. The design, fabrication, assembly and **inspection** of piping and pumping systems containing **distilled beverage alcohols** shall be suitable for the anticipated maximum working pressures, operating temperatures, internal corrosion conditions and structural stresses to which they could be subjected.

Subsection 4.10.6. Ventilation*Ventilation*

4.10.6.1. Natural or mechanical ventilation shall be provided for all areas where alcohol vapours are released from **storage tanks** or process equipment under normal operating conditions, to prevent the concentration of vapours from exceeding 25% of the **lower explosive limit**, measured 1.5 m from any equipment or from any opening subject to vapour release.

Explosion venting

4.10.6.2. Explosion venting shall be provided in conformance with Article 4.2.9.5.

Subsection 4.10.7. Spill Control*Spill control*

4.10.7.1. Emergency drainage systems shall be provided to direct any spilled or leaked **distilled beverage alcohol** to a safe location.

Subsection 4.10.8. Fire Protection

Portable extinguishers

4.10.8.1. (1) Except as permitted in Sentence (2), in maturing warehouses, at least one portable extinguisher having a rating of 4-A:30-B:C shall be located adjacent to each **exit**.

(2) Hose stations in conformance with Article 6.2.6.6. are permitted to be installed in lieu of portable extinguishers at locations required in Sentence (1), and spaced so that the travel distance to the nearest hose is not greater than 25 m.

(3) At least one portable extinguisher having a rating of 30-B:C shall be located on each industrial lift truck.

(4) In addition to the requirements set out in Sentences (1) to (3), portable extinguishers shall be provided in conformance with Section 6.2.

Standpipe and hose systems

4.10.8.2. (1) Except as provided in Sentence (2), standpipe and hose systems shall be provided and installed in **distilleries** in conformance with the **Building Code**.

(2) Where a **building** is **sprinklered** in conformance with the **Building Code**, small hose (38 mm) stations are permitted to be supplied from interior sprinkler piping.

SECTION 4.11 TANK VEHICLES

Subsection 4.11.1. Scope

Application

4.11.1.1. This Section applies to **tank vehicles** when located on a property covered in this Code.

Subsection 4.11.2. General

Portable extinguishers

4.11.2.1. (1) A **tank vehicle** shall be provided with at least one portable extinguisher having a minimum rating of 80-B:C.

(2) Portable extinguishers on a **tank vehicle** shall be readily accessible.

Hot works

4.11.2.2. Hot works performed on or in close proximity to a **tank vehicle** shall conform to Section 5.17.

Parking inside buildings

4.11.2.3. (1) A **tank vehicle** shall not be parked inside a **building** unless

- (a) the **building** is specifically designed for that purpose,
- (b) there is sufficient space in the **tank vehicle** compartment to accommodate the thermal expansion of the **flammable liquid** or **combustible liquid**, and
- (c) the **tank vehicle** has no leaks of **flammable liquid** or **combustible liquid**.

Parking outside buildings

4.11.2.4. (1) Except as provided in Sentence (2), a **tank vehicle** is permitted to be left unattended by the vehicle operator outside a **building** for not more than 1 h.

- (2) A **tank vehicle** is permitted to be left unattended by the vehicle operator outside a **building** for more than 1 h, but only in a parking space
- (a) that is located not less than 15 m from a **building**, and
 - (b) where the **tank vehicle** is not exposed to undue hazard from accident or collision.

Subsection 4.11.3. Loading, Unloading and Dispensing from Tank Vehicles

Loading and unloading

4.11.3.1. Unless otherwise stated in this Subsection, the loading and unloading of **tank vehicles** shall be conducted in conformance with the applicable provisions in Subsection 4.7.4.

Ignition sources

4.11.3.2. During loading and unloading operations, a **tank vehicle** and its delivery equipment shall be separated from ignition sources by distances conforming to the requirements for dispensers in Articles 4.6.3.3. and 4.6.8.7.

Static electric charges

4.11.3.3. During loading and unloading of a **tank vehicle**, measures shall be taken against static electric charges in conformance with Articles 4.1.8.2. and 4.7.4.5.

Supervision

4.11.3.4. During loading and unloading of a **tank vehicle**, trained personnel shall be in a position to shut off the flow of liquid in an emergency.

Multi-use compartments

4.11.3.5. When a compartment of a **tank vehicle** has been used to carry a Class I liquid, the compartment, piping and accessory delivery equipment shall be drained of liquid before a Class II or IIIA liquid is loaded.

Engine

4.11.3.6. When the loading or unloading of Class I liquids is done without the use of the engine of the **tank vehicle**, the engine ignition shall be shut off during the transfer operations.

Unloading

4.11.3.7. (1) Before a **tank vehicle** is unloaded, the volume of liquid in the receiving tank shall be measured to ensure that the tank can accept the volume to be unloaded.

(2) If the vents of the receiving or delivery tank are obstructed, the transfer of liquid shall be stopped.

(3) A **tank vehicle** shall not be parked on a **street**, shoulder or sidewalk while unloading at a **fuel-dispensing station**.

Dispensing into vehicles

4.11.3.8. (1) Dispensing Class I liquids into the fuel tank of vehicles directly from a **tank vehicle** shall not be permitted.

(2) Dispensing Class II or IIIA liquids into the fuel tank of vehicles directly from a **tank vehicle** having a capacity greater than 3000 L shall be permitted only if

- (a) the vehicles are located outdoors on a property where they are
 - (i) not less than 6 m away from any building, and

- (ii) not exposed to undue hazard from accident or collision,
- (b) at least two portable extinguishers having a minimum rating of 80-B:C are provided on the **tank vehicle**,
- (c) the delivery hoses and automatically closing hose nozzle valves used for the fuel-dispensing operations conform to Subsection 4.6.5.,
- (d) the **tank vehicle** operator is given training and equipment for controlling any spillage that may occur during the fuel-dispensing operations, and
- (e) in cases where fuel-dispensing operations are carried out at a site not conforming to Subsection 4.1.6., measures are in place to control a spill of not less than 1000 L.

PART 5

HAZARDOUS MATERIALS, PROCESSES AND OPERATIONS

TABLE OF CONTENTS

SECTION 5.1	GENERAL	SECTION 5.9	RESERVED
Subsection 5.1.1.	Application, Explosives, Fireworks and Pyrotechnics	SECTION 5.10	RESERVED
Subsection 5.1.2.	Means of Egress	SECTION 5.11	HOT SURFACE APPLICATIONS
Subsection 5.1.3.	Electrical Installations	Subsection 5.11.1.	Application
Subsection 5.1.4.	Ventilation	Subsection 5.11.2.	General
SECTION 5.2	RESERVED	SECTION 5.12	SPRAY APPLICATIONS USING FLAMMABLE AND COMBUSTIBLE MATERIALS
SECTION 5.3	DUST PRODUCING PROCESSES	Subsection 5.12.1.	Application and Separation
Subsection 5.3.1.	General	Subsection 5.12.2.	Construction
Subsection 5.3.2.	Woodworking Operations	Subsection 5.12.3.	Ventilation
Subsection 5.3.3.	Grain Handling and Storage Facilities	Subsection 5.12.4.	Exhaust Ducts
SECTION 5.4	CELLULOSE NITRATE PLASTICS	Subsection 5.12.5.	Electrical Equipment
Subsection 5.4.1.	Displays	Subsection 5.12.6.	Flammable Liquids and Combustible Liquids
Subsection 5.4.2.	Manufacture	Subsection 5.12.7.	Control of Fire Hazards
Subsection 5.4.3.	Storage of Finished Products	Subsection 5.12.8.	Fire Protection Equipment
Subsection 5.4.4.	Cellulose Nitrate Motion Picture Film	Subsection 5.12.9.	Drying Operations
Subsection 5.4.5.	Fire Protection	Subsection 5.12.10.	Electrostatic Spraying
SECTION 5.5	LABORATORIES	Subsection 5.12.11.	Dry Powder-Coating Using Spray Guns
Subsection 5.5.1.	Application	SECTION 5.13	DIP TANKS
Subsection 5.5.2.	Construction	Subsection 5.13.1.	Location
Subsection 5.5.3.	Fire Prevention and Protection	Subsection 5.13.2.	Construction
Subsection 5.5.4.	Ventilation	Subsection 5.13.3.	Overflow and Drain Pipes
Subsection 5.5.5.	Dangerous Goods	Subsection 5.13.4.	Salvage Tanks
Subsection 5.5.6.	Existing Laboratories	Subsection 5.13.5.	Control of Fire Hazards
SECTION 5.6	COMPRESSED GAS CYLINDERS	Subsection 5.13.6.	Fire Protection
Subsection 5.6.1.	General	SECTION 5.14	SPECIAL PROCESSES INVOLVING FLAMMABLE AND COMBUSTIBLE MATERIALS
Subsection 5.6.2.	Storage	Subsection 5.14.1.	Quench Tanks
SECTION 5.7	RESERVED	Subsection 5.14.2.	Flow-Coating Operations
SECTION 5.8	RESERVED		

- Subsection 5.14.3. Roll Coating Processes
- Subsection 5.14.4. Electrostatic Detearing Processes
- Subsection 5.14.5. Automobile Undercoating
- Subsection 5.14.6. Dry Powder-Coating Using Fluidized Beds
- Subsection 5.14.7. Organic Peroxides and Dual Component Coatings
- Subsection 5.14.8. Floor Finishing
- Subsection 5.14.9. Bowling Alleys
- Subsection 5.14.10. Drycleaning and Dyeing Plants
- Subsection 5.14.11. Hazardous Extraction Operations

SECTION 5.15 RESERVED

SECTION 5.16 FUMIGATION AND THERMAL INSECTICIDAL FOGGING

- Subsection 5.16.1. Application

- Subsection 5.16.2. Safety Precautions

SECTION 5.17 HOT WORKS

- Subsection 5.17.1. Application
- Subsection 5.17.2. Use and Maintenance of Equipment
- Subsection 5.17.3. Prevention of Fires

SECTION 5.18 INDUSTRIAL OVENS FOR BAKING AND DRYING PROCESSES

- Subsection 5.18.1. Application
- Subsection 5.18.2. Location
- Subsection 5.18.3. Construction
- Subsection 5.18.4. Ventilation
- Subsection 5.18.5. Maintenance
- Subsection 5.18.6. Fire Protection

SECTION 5.1 GENERAL

Subsection 5.1.1. Application, Explosives, Fireworks and Pyrotechnics

Application

5.1.1.1. This Part applies to materials, processes and operations that involve a risk from explosion or high flammability, or otherwise create a hazard to life safety or health.

Explosives

5.1.1.2. (1) The manufacturing, handling, transportation, sale and use of **dangerous goods** classified as explosives shall be in conformance with the **Explosives Act (Canada)** and its regulations.

(2) No explosives shall be manufactured, stored, handled, transported, sold or used unless fire emergency procedures are established in accordance with Section 2.8 and such procedures specify

- (a) the location and identification of storage and handling areas, and
- (b) the methods to control a fire emergency safely and efficiently.

(3) Sentence (2) does not apply to

- (a) the storage of consumer fireworks (type F.1, as designated by the **Explosives Act (Canada)** and its regulations) in **dwelling units**, or
- (b) the storage of small arms cartridges (type C.1, as designated by the **Explosives Act (Canada)** and its regulations) in **dwelling units**.

Handling and discharge of fireworks and pyrotechnics

5.1.1.3. The handling and discharge of fireworks and pyrotechnics shall conform to NRCan, “Display Fireworks Manual” and NRCan, “Special Effects Pyrotechnics Manual”.

Subsection 5.1.2. Means of Egress

Means of egress

5.1.2.1. Hazardous materials, processes and operations shall be located and the premises maintained so that the **means of egress** will not be obstructed in any manner that would interfere with evacuation of the **floor area** in the event of a fire.

Subsection 5.1.3. Electrical Installations

Electrical installations

5.1.3.1. Electrical installations shall conform to the **Electrical Safety Code** made under the **Electricity Act, 1998**.

Subsection 5.1.4. Ventilation

Ventilation requirements

5.1.4.1. Ventilation shall be provided for hazardous locations and processes in conformance with the **Building Code** and the requirements of this Part.

Ventilation of processes using flammable gas

5.1.4.2. (1) Subject to Sentence (2), operations involving the use of flammable gas shall be provided with continuous mechanical ventilation that

- (a) is sufficient to ensure that flammable gas concentrations outside any zone identified as Class I, Zone 2 in accordance with the Electrical Safety Code made under the Electricity Act, 1998, do not exceed 25% of the lower explosive limit of the flammable gas,
- (b) contains automatic interlocks so that the processes using flammable gas cannot be performed when the ventilation system is not in operation,
- (c) is provided with an audible alarm in an attended area that activates upon shutdown of the ventilation system,
- (d) conforms to NFPA 91, “Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists and Noncombustible Particulate Solids”,
- (e) is not used for any purpose other than ventilation and exhaust,
- (f) is kept free of obstructions that may interfere with its operation, and
- (g) if it recirculates exhaust air, is provided with a fail-safe gas detection and alarm system that continuously monitors the flammable gas concentration in the exhaust air, so that if the flammable gas concentration in the exhaust air exceeds 25% of the lower explosive limit, the system will
 - (i) sound an alarm in an attended area,
 - (ii) stop the recirculation of air, and
 - (iii) redirect the exhaust air to an outdoor location.

(2) Sentence (1) does not apply to operations where flammable gas is only used as a fuel.

SECTION 5.2 RESERVED

SECTION 5.3 DUST PRODUCING PROCESSES

Subsection 5.3.1. General

Application

5.3.1.1. This Section shall apply to **buildings** or parts of **buildings** where **combustible dusts** are produced in quantities or concentrations that create an explosion or fire hazard.

Dust removal

5.3.1.2. (1) **Building** and machinery surfaces shall be kept clean of accumulations of **combustible dusts** using cleaning equipment that

- (a) is made of materials that will not create electrostatic charges or sparks,
- (b) is electrically conductive and bonded to ground, and
- (c) except as permitted in Sentence (3), removes the dust to a safe location by vacuum.

(2) Cleaning equipment required in Sentence (1) that is used in an atmosphere containing **combustible dusts**, shall conform to the **Electrical Safety Code** made under the **Electricity Act, 1998**.

(3) Where it is not possible to effectively remove the dust by vacuum, it is permitted to use compressed air or other means that will cause the dust to become suspended in the air during removal if, in the dust removal area,

- (a) all sources of ignition are eliminated, and
- (b) all machinery and equipment is de-energized, unless such machinery or equipment is suitable for use in atmospheres containing **combustible dusts** in conformance with the Electrical Safety Code made under the **Electricity Act, 1998**.

Dust-collecting systems

5.3.1.3. (1) Dust-collecting systems shall be provided to prevent the accumulation of dust and keep suspended dusts at a safe concentration inside a **building**.

- (2) A dust-collecting system required in Sentence (1) shall
 - (a) be designed in conformance with good engineering practice,
 - (b) be made of noncombustible materials, and
 - (c) not create sparks upon physical contact in the fan assembly.

Dust collectors

5.3.1.4. (1) Except as provided in Sentence (2), a dust collector having a capacity greater than 2.36 m³/s shall

- (a) be located outside of a building, and
 - (b) be equipped with explosion venting to the outdoors of not less than 0.1 m² of vent area for each cubic metre of dust collector enclosure volume.
- (2) A dust collector described in Sentence (1) is permitted to be located inside a building if it is
- (a) provided with explosion venting to the outdoors as specified in Clause (1)(b),
 - (b) equipped with an automatic explosion prevention system, or
 - (c) located in a room
 - (i) with fire separations having a fire-resistance rating of not less than 1 h,
 - (ii) provided with explosion venting to the outdoors, and
 - (iii) used solely for the housing of dust-collecting equipment.
- (3) When air exhausted by a dust collector described in this Article is returned to a building, the dust-collecting system shall be designed so that
- (a) returned air will not create an explosion hazard inside the building, and
 - (b) the exhaust fan and ancillary equipment are automatically shut down in the event of a fire or an explosion inside the dust collector.

Bonding and grounding

5.3.1.5. (1) Electrically conducting parts of conveying systems, dust collectors, dust-producing machines and any equipment capable of accumulating static electricity located in an atmosphere containing **combustible dusts** shall be electrically bonded and grounded.

(2) Static electricity shall be prevented from accumulating on machines or equipment subject to static electricity buildup by appropriate bonding, grounding and static eliminating devices.

Explosion venting

5.3.1.6. (1) Except as provided in Article 5.3.1.7., an activity that creates an atmosphere containing significant concentrations of combustible dusts shall be located only in a building provided with explosion venting to the outdoors.

(2) When explosion venting is required in this Section, it shall be designed to prevent critical structural and mechanical damage to the **building** in conformance with NFPA 68, "Standard on Explosion Protection by Deflagration Venting".

Explosion prevention systems

5.3.1.7. (1) In processes where an explosion hazard is present and conditions exist that prevent adequate explosion venting as required in this Section, an explosion prevention system shall be provided.

(2) When an explosion prevention system is required in this Section, it shall be designed in conformance with NFPA 69, "Standard on Explosion Prevention Systems".

Electrical interlocks

5.3.1.8. Equipment required to have a dust-collecting system shall be interlocked to prevent it from operating if the dust-collecting system is not in operation.

Separators

5.3.1.9. Separators shall be provided to prevent the entrance of foreign materials that may cause sparks in conveying equipment, dust collectors, dust-producing machines and any equipment located in an atmosphere containing **combustible dusts**.

Ignition sources

5.3.1.10. (1) Unless controlled in a manner that will not create a fire or explosion hazard, a device, operation or activity that produces open flames, sparks or heat shall not be permitted.

(2) Portable electrical equipment used in atmospheres containing **combustible dusts** shall conform to **Electrical Safety Code** made under the **Electricity Act, 1998**.

(3) Smoking shall not be permitted in atmospheres containing **combustible dusts**.

Air velocity

5.3.1.11. Dust-collecting systems shall be designed for an air velocity in the ducts of at least 1068 m/min.

Vent stacks

5.3.1.12. (1) Permanently open vent stacks may be used to ventilate storage containers where mechanical dust-collecting systems are not practical, provided that the vent stacks

- (a) have a cross-sectional area not less than twice that of spouts discharging into the container,
- (b) are installed not more than 30 degrees from the vertical,
- (c) extend from the top of the container to a point not less than 1.2 m above the roof, and
- (d) are designed to prevent the entry of snow and rain.

Subsection 5.3.2. Woodworking Operations

Exhaust systems

5.3.2.1. (1) Every machine that produces wood dust, particles or shavings shall be provided with a blower and exhaust system installed in conformance with NFPA 664, "Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities".

(2) Operations or machines that generate sparks or combustible vapours shall not be served by exhaust systems connected to woodworking machines referred to in Sentence (1).

(3) Blower and exhaust systems that are installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continue to meet those requirements are deemed to comply with Sentence (1).

Shavings and sawdust collection

5.3.2.2. Loose shavings and sawdust shall be collected at frequent intervals and deposited in receptacles conforming to Article 2.4.1.3.

Fire extinguishers

5.3.2.3. A portable extinguisher that complies with Subsection 6.2.6. or a garden-type hose shall be provided within 7.5 m of any machine producing wood dust, particles or shavings.

Subsection 5.3.3. Grain Handling and Storage Facilities

Storage bins and silos

5.3.3.1. (1) A product subject to spontaneous heating shall be permitted to be stored in silos or bins only if measures are taken to

- (a) monitor the temperature of the stored product, and
- (b) prevent overheating of the stored product from creating a fire or explosion hazard.

(2) Permanently open vent stacks are permitted to be used for the ventilation of storage bins where mechanical dust-collecting systems are not practical, provided that the vent stacks

- (a) have a cross-sectional area not less than twice that of all spouts discharging into the bin,
- (b) are installed not more than 30 degrees from the vertical,
- (c) extend from the top of the bin to a point not less than 1.2 m above the roof, and
- (d) are designed to prevent the entry of snow and rain.

Conveying equipment

5.3.3.2. (1) Belt conveyors and bucket elevator legs shall be equipped with safety devices to

- (a) detect excessive misalignment, blockage, slipping or slow-down of the conveying equipment, and
- (b) prevent conditions described in Clause (a) from creating a fire or explosion hazard by
 - (i) alerting personnel trained in taking appropriate actions, or
 - (ii) automatically stopping the conveying equipment.

(2) Conveying equipment belts shall be made of static conductive materials to prevent buildup of static charges.

(3) Conveying equipment bearings shall be

- (a) accessible for **inspection** and maintenance,
- (b) lubricated to prevent overheating, and
- (c) kept free of accumulation of **combustible dusts**.

(4) Belt conveyor galleries and tunnels and bucket elevator leg enclosures shall be provided with explosion venting to the outdoors in conformance with Sentence 5.3.1.6.(2).

Separators

5.3.3.3. Separators shall be provided at grain receiving points ahead of the conveying equipment.

Fire protection

5.3.3.4. Where a hose station is provided in grain handling and storage facilities in which **combustible dusts** are produced in quantities or concentrations that create an explosion or fire hazard, fog and fine spray nozzles shall be used instead of nozzles that discharge a solid stream of water to prevent **combustible dusts** from being raised into suspension.

SECTION 5.4 CELLULOSE NITRATE PLASTICS

Subsection 5.4.1. Displays

Advertising displays

5.4.1.1. Displays of cellulose nitrate plastic articles in stores that are not in showcases or show windows shall be displayed only when placed on tables or counters not more than 1 m wide and 3 m long, and the spaces underneath the tables or counters shall be kept free of combustible materials.

Lighting fixtures

5.4.1.2. Lighting fixtures shall not be located adjacent to any cellulose nitrate plastic material so as to create a possible ignition hazard.

Subsection 5.4.2. Manufacture

Storage of raw materials

5.4.2.1. Raw materials used in the manufacture of cellulose nitrate plastics shall be stored only in areas reserved for that purpose.

Storage in cabinets

5.4.2.2. Not more than 450 kg of raw material used for the manufacture of finished cellulose nitrate plastic goods shall be stored in cabinets in any one workroom, not more than 225 kg stored in any one cabinet and not more than 112 kg in any one compartment of the cabinet.

Storage in vented vaults

5.4.2.3. Raw material in excess of that permitted in Article 5.4.2.2. shall be kept in vented vaults not exceeding 40 m³ capacity and protected with an automatic sprinkler system installed in conformance with NFPA 13, “Standard for the Installation of Sprinkler Systems”.

Accumulation of materials in workrooms

5.4.2.4. In factories manufacturing articles of cellulose nitrate plastics, **sprinklered** and vented cabinets, vaults or storage rooms shall be provided to prevent the accumulation of excessive quantities of such material in workrooms.

Stationing of operators

5.4.2.5. In the workrooms of factories where cellulose nitrate plastics are being processed, operators shall be stationed not closer than 1 m apart.

Storage in work areas

5.4.2.6. Material for the manufacture of cellulose nitrate plastic articles that is not kept in containers may be placed on tables, workbenches or at machines provided the quantity does not exceed one day’s supply.

Storage limitations in workrooms

5.4.2.7. The total amount of cellulose nitrate plastic materials, including the material in containers and on tables, in any one workroom shall not exceed 70 kg.

Waste material storage

5.4.2.8. Waste cellulose nitrate plastic materials such as shavings, chips, turnings, sawdust edgings and trimmings shall be kept under water in metal receptacles until removed from the premises.

Subsection 5.4.3. Storage of Finished Products

Ventilation

5.4.3.1. Areas where cellulose nitrate plastic finished products are stored shall be ventilated so that any decomposition gases produced by the plastics will be vented outdoors to an area where they will not re-enter the **building**.

Heating appliance restrictions

- 5.4.3.2. (1) Cellulose nitrate plastics shall not be stored
- (a) in rooms containing fuel-burning **appliances** or electrical heating elements, or
 - (b) within 600 mm of any steam pipe, radiator or **chimney**.

Storage vaults

5.4.3.3. (1) Where cellulose nitrate plastics in excess of 11 kg are stored in any **fire compartment** in a **building**, a vented cabinet or vault constructed in conformance with NFPA 40E, “Code for the Storage of Pyroxylin Plastic”, and Articles 5.4.3.4. and 5.4.3.5. shall be provided for its storage.

- (2) Not more than 9000 kg of cellulose nitrate plastics shall be stored in any vault.

Storage up to 3400 kg

- 5.4.3.4. (1) Where quantities do not exceed 3400 kg, cellulose nitrate plastics shall be stored in a vault that
- (a) has a **fire-resistance rating** not less than 1.5 h,
 - (b) is designed to resist an internal pressure of 3.5 kPa,
 - (c) is not greater than 40 m³ in volume,
 - (d) has explosion venting of 0.1 m² of venting area to the exterior for every cubic metre of vault volume, and
 - (e) is ventilated to the exterior to provide 200 cm² of ventilating area for each cubic metre of vault volume.

Storage in excess of 3400 kg

5.4.3.5. (1) Where quantities exceed 3400 kg but do not exceed 9000 kg, cellulose nitrate plastics shall be stored in a vault that

- (a) has a **fire-resistance rating** not less than 4 h,
- (b) is designed to resist an internal pressure of 28 kPa,
- (c) has explosion venting of 650 cm² of venting area to the exterior for every cubic metre of vault volume, and
- (d) is ventilated to the exterior to provide 200 cm² of ventilating area for each cubic metre of vault volume.

Subsection 5.4.4. Cellulose Nitrate Motion Picture Film***Restricted use***

5.4.4.1. Cellulose nitrate motion picture film shall not be used, stored or handled in a place of public assembly.

Storage and handling

5.4.4.2. Cellulose nitrate motion picture film shall be stored and handled in conformance with NFPA 40, “Standard for the Storage and Handling of Cellulose Nitrate Motion Picture Film”.

Storage when not in use

5.4.4.3. When not in use, cellulose nitrate motion picture film shall be kept in closed, single-roll containers.

Subsection 5.4.5. Fire Protection

Sprinkler systems

5.4.5.1. The manufacture and storage of articles of cellulose nitrate plastic in quantities exceeding 45 kg shall be only in **buildings** equipped with a system of automatic sprinklers installed in conformance with NFPA 13, “Standard for the Installation of Sprinkler Systems”.

SECTION 5.5 LABORATORIES

Subsection 5.5.1. Application

Application

5.5.1.1. (1) This Section applies to laboratories where **dangerous goods**, including **flammable liquids** and **combustible liquids**, are used.

(2) Except as otherwise specified in this Section, the use, handling and storage of **dangerous goods**, including **flammable liquids** and **combustible liquids**, shall conform to this Part and Parts 3 and 4.

Subsection 5.5.2. Construction

Interior finish materials

5.5.2.1. Interior finish materials, floors, fixed furniture and equipment shall be chemically resistant to **dangerous goods** being used in a laboratory to minimize their deterioration, in conformance with Articles 3.2.7.7. and 3.2.7.8.

Separation

5.5.2.2. (1) A laboratory shall be separated from other parts of the **building** by **fire separations** having a **fire-resistance rating** of not less than 1 h.

(2) A laboratory that has fire separations consisting of membranes of lath and plaster or gypsum board is deemed to be in compliance with Sentence (1) if the laboratory was in existence on or before November 21, 1997.

Subsection 5.5.3. Fire Prevention and Protection

Emergency planning

5.5.3.1. (1) A fire safety plan conforming to Section 2.8. shall be prepared.

(2) Except as provided in Sentences (3) to (6), a laboratory shall conform to the requirements for emergency planning stated in Section 2.8.

(3) Persons working in a laboratory shall be trained in the safe handling and use of **dangerous goods**, in conformance with Article 3.2.7.15.

(4) **Dangerous goods** shall be identified in conformance with Article 3.2.7.13.

(5) The laboratory shall be clearly designated as an area containing **dangerous goods** in conformance with Article 3.2.7.14.

(6) Measures shall be taken to prevent access to the laboratory by unauthorized persons.

Combustible materials

5.5.3.2. (1) Where combustible materials, such as packaging materials, are used in a laboratory, their quantity shall not be greater than the supply for one day of normal operation.

(2) Combustible materials in excess of those permitted in Sentence (1) shall be stored outside of the laboratory in conformance with Section 3.2.

Spill control

5.5.3.3. (1) Absorbent and neutralizing materials shall be provided in the laboratory and in the **dangerous goods** storage areas in conformance with Sentence 3.2.7.11.(2).

(2) A written spill procedure shall be provided for laboratories in conformance with Article 4.1.6.4.

Electrical equipment

5.5.3.4. (1) Except as provided in Sentence 5.5.3.5.(3), electrical equipment located in areas where the concentration of flammable vapours is sufficient to create a hazard shall conform to **Electrical Safety Code** made under the **Electricity Act, 1998**.

(2) Electrical equipment located inside a power-ventilated enclosure required in Article 5.5.4.2. and its exhaust duct system shall

- (a) conform to Sentence (1), and
- (b) be designed and maintained to prevent the accumulation of combustible or reactive deposits.

Ignition sources

5.5.3.5. (1) Smoking shall not be permitted in a laboratory and signs shall be posted in conformance with Article 2.4.3.2.

(2) Where overheating of unattended equipment using heat can cause a fire or an explosion, such equipment shall be equipped with a high temperature limit switch fitted to

- (a) sound an alarm, and
- (b) shut off the heat.

(3) An ignition source that is an integral part of an operation involving flammable vapours shall be permitted provided

- (a) the supply of **flammable liquids** or **combustible liquids** for this operation is controlled and kept to a strict minimum,
- (b) flammable vapours and combustion fumes are exhausted in conformance with Article 5.5.4.2.,
- (c) there is no other source of ignition capable of igniting the flammable vapours in an uncontrolled manner, and
- (d) there is no combustible material in the immediate vicinity of this operation.

Inspection and maintenance

5.5.3.6. (1) Electrical equipment, mechanical systems, piping, valves and automatic and manual control and safety devices shall be **inspected** at intervals not greater than 12 months and maintained in good operating condition at all times.

(2) The ventilation systems serving a laboratory shall be **inspected** and cleaned to prevent the accumulation of combustible or reactive deposits and the intervals between **inspections** shall be not greater than

- (a) 12 months for the ventilation systems of the laboratory and **dangerous goods** storage areas, and
- (b) six months for the ventilation system of a power-ventilated enclosure required in Article 5.5.4.2.

Subsection 5.5.4. Ventilation

General ventilation

5.5.4.1. (1) A laboratory shall be provided with continuous mechanical ventilation designed to ensure that **dangerous goods** vapours and particles

- (a) do not accumulate in the laboratory,
- (b) are prevented from migrating to other parts of the **building**,
- (c) do not accumulate in the ventilation system,
- (d) are exhausted to the outdoors, and
- (e) are not returned to the **building**.

(2) A ventilation system required in Sentence (1) shall be provided with monitoring devices to

- (a) indicate that the ventilation system is in operation, and
- (b) sound an alarm if the ventilation system is malfunctioning.

(3) A ventilation system required in Sentence (1) shall be maintained to ensure it fulfils the function for which it was designed.

Power-ventilated enclosure

5.5.4.2. (1) The use of **dangerous goods** in a laboratory shall be confined inside a power-ventilated enclosure conforming to Articles 5.5.4.3. and 5.5.4.4. when

- (a) their use releases flammable vapours or causes runaway or potentially explosive reactions,
- (b) liquids are heated to a temperature equal to or greater than their **flash point**, or
- (c) Class I liquids or **unstable liquids** are used.

(2) A power-ventilated enclosure required in Sentence (1) shall not be used for the storage of dangerous goods and any quantity in excess of the supply necessary for normal operations shall conform to Subsection 5.5.5.

Enclosure exhaust ventilation

5.5.4.3. (1) The ventilation system for a power-ventilated enclosure required in Article 5.5.4.2. shall

- (a) conform to NFPA 91, "Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids",
- (b) provide continuous exhaust ventilation at an air velocity sufficient to prevent the accumulation of combustible or reactive deposits in the power-ventilated enclosure and its exhaust duct system,
- (c) confine **dangerous goods** vapours and particles to the area where they are generated and exhaust them to the outdoors,
- (d) not return the exhausted air to the **building**, and
- (e) be provided with well identified control switches that are
 - (i) located outside of the power-ventilated enclosure, and
 - (ii) readily accessible in case of an emergency.

(2) The ventilation system described in Sentence (1) shall not be interlocked with a fire detection, fire alarm or make-up air system.

(3) Where combustible or reactive deposits can accumulate in the power-ventilated enclosure and its exhaust duct system and create a fire or explosion hazard

- (a) provisions shall be made to remove such deposits so they do not create a fire or explosion hazard, or
- (b) an automatic fire suppression system shall be provided in conformance with an applicable standard set out in Article 2.1.3.5.

Enclosure construction

5.5.4.4. (1) The power-ventilated enclosure required in Article 5.5.4.2. and its exhaust duct system shall

- (a) except as provided in Sentences (2) and (3), be constructed of noncombustible materials compatible with and chemically resistant to vapours being exhausted,
 - (b) be provided with access doors to permit **inspection** and maintenance of the fan assembly and exhaust ducts,
 - (c) be provided with instructions for its use and the operation of the ventilation system, and
 - (d) be provided with means to control accidental spillage.
- (2) Combustible materials are permitted in systems described in Clause (1)(a) where
- (a) such materials are required by the corrosive or reactive properties of the **dangerous goods** being used, and
 - (b) their **flame-spread rating** is not more than 25.
- (3) The **flame-spread rating** required in Sentence (2) is permitted to be greater than 25 if an automatic special fire suppression system conforming to an applicable standard set out in Article 2.1.3.5. is provided inside the power-ventilated enclosure and its exhaust duct system.

Subsection 5.5.5. Dangerous Goods

Maximum quantities

5.5.5.1. (1) The quantity of **dangerous goods** kept in a laboratory shall be minimized and shall not exceed the lesser of

- (a) the supply necessary for normal operation, or
- (b) when located in
 - (i) a major occupancy that is classified as either an educational **assembly occupancy** or a **business and personal services occupancy**, 300 L of **flammable liquids** and **combustible liquids**, of which not more than 50 L shall be Class I liquids, or
 - (ii) a major occupancy that is classified as a **care, care and treatment** or **detention occupancy**, the quantities of **flammable liquids** and **combustible liquids** permitted in Sentence 4.2.6.3.(1).

(2) Quantities of **flammable liquids** and **combustible liquids** in excess of those permitted in Sentence (1) shall be stored in

- (a) cabinets conforming to Subsection 4.2.10. except that, in laboratories described in Clause (1)(b), the total quantity of **flammable liquids** and **combustible liquids** stored in such cabinets shall not exceed the quantity permitted for one cabinet, or
- (b) a room conforming to Subsection 4.2.9.

(3) Quantities of **dangerous goods** other than **flammable liquids** and **combustible liquids** in excess of those permitted in Sentence (1) shall be stored outside of the laboratory in conformance with Part 3.

Containers for flammable and combustible liquids

5.5.5.2. (1) Except as provided in Sentences (2) and (4), containers used for the storage or dispensing of **flammable liquids** or **combustible liquids** in a laboratory shall conform to Subsection 4.2.3.

(2) Where Class I liquids are required to be kept in individual storage or dispensing containers having a capacity greater than 5 L in a laboratory, such containers shall

- (a) be safety containers conforming to ULC/ORD-C30, "Safety Containers", and
- (b) have a capacity of not more than 25 L.

(3) Containers used for the preservation of animal, human or plant specimens that contain **flammable liquids** or **combustible liquids** shall

- (a) be properly sized for the specimens,
- (b) be stored in a room conforming to Subsection 4.2.9., and
- (c) be protected against breakage and spillage.

- (4) Containers of **flammable liquids** or **combustible liquids** shall be kept closed when not in use.

Compressed gases

5.5.5.3. (1) Cylinders of **dangerous goods** classified as **compressed gases** shall not be located in laboratories unless

- (a) they are in use and connected
 - (i) to a regulator to deliver gas, or
 - (ii) to a manifold being used to deliver gas, or
- (b) one is serving as a single reserve cylinder for a cylinder described in Subclause (a)(i) to which it is firmly secured with a noncombustible attachment.

(2) Storage cylinders and piping systems for **dangerous goods** classified as **compressed gases** used in a laboratory shall be firmly secured with a noncombustible attachment and protected against mechanical damage.

(3) Each point of supply and each point of use of cylinders or piping systems for **dangerous goods** classified as **compressed gases** shall be provided with

- (a) a label identifying the gas being supplied, and
- (b) a manual shut-off valve.

(4) Valves on cylinders for **dangerous goods** classified as **compressed gases** shall be closed when not in use.

(5) Except as provided in Sentence (7), where cylinders of **dangerous goods** classified as toxic gases are used in a laboratory

- (a) they shall be located in a continuously mechanically ventilated gas storage cabinet,
- (b) all exhaust shall be directed to a treatment system designed to process the accidental release of gas, and
- (c) the gas levels in the air shall be monitored by a gas detection system designed to emit an audible and visual signal within the laboratory and at a central station when gas levels exceed the exposure limit values established by provincial or territorial regulations or municipal by-laws or, in the absence of such regulations or bylaws, when they exceed the exposure limit values stated in the Safety Data Sheet.

(6) Except as permitted in Sentence (7), cylinders of **dangerous goods** classified as **compressed gases** of pyrophoric materials shall be located in a gas storage cabinet that is

- (a) continuously mechanically ventilated, and
- (b) **sprinklered**.

(7) Where lecture bottles of **dangerous goods** classified as toxic gases or as **compressed gases** of pyrophoric materials are used in a laboratory

- (a) they shall be kept in a dedicated continuously mechanically ventilated hood or other continuously mechanically ventilated enclosure, and
- (b) all exhaust shall be directed to a treatment system designed to process the accidental release of gas.

Refrigerated storage

5.5.5.4. (1) Refrigerators described in Sentence 4.1.4.1.(2) shall be identified in conformance with Article 3.2.7.14.

- (2) Class I liquids that are stored in refrigerators shall be kept in **closed containers**.

Dangerously reactive materials

5.5.5.5. (1) Except as provided in Article 5.5.5.6., the heating of dangerously reactive materials above normal ambient temperature or as specified in the Safety Data Sheet shall be carried out in a separate power-ventilated enclosure

- (a) conforming to Articles 5.5.4.2. to 5.5.4.4., and
- (b) displaying conspicuously posted instructions specifying that the enclosure is to be used for this application only.

(2) The power-ventilated enclosure required by Sentence (1) as well as its exhaust duct system shall be washed after each use to prevent the possible accumulation of highly reactive or unstable deposits.

Perchloric acid

5.5.5.6. (1) Where perchloric acid is heated above normal ambient temperature, it shall be done in a separate power-ventilated enclosure

- (a) conforming to Articles 5.5.4.3. and 5.5.4.4., and
- (b) displaying conspicuously posted instructions specifying that the enclosure is to be used for this application only.

(2) The power-ventilated enclosure required by Sentence (1) as well as its exhaust duct system shall be washed after each use to prevent the accumulation of highly unstable deposits.

(3) Perchloric acid shall not be heated with an open flame or in a hot oil bath.

Chemical wastes

5.5.5.7. (1) Wastes from dangerous goods shall be

- (a) identified to prevent accidental mixing of incompatible chemicals, and
- (b) included in the quantities specified in Article 5.5.5.1.

Subsection 5.5.6. Existing Laboratories

Ventilation systems

5.5.6.1. A ventilation system in a laboratory that is installed and currently in use, that met the requirements of this Code on December 31, 2025, as it read at the time, and that continues to meet those requirements is deemed to comply with Articles 5.5.4.1., 5.5.4.2., 5.5.4.3. and 5.5.4.4.

Laboratories in basements

5.5.6.2. Laboratories in **basements** storing, handling or using **flammable liquids** or **combustible liquids** that existed and met the requirements of this Code on December 31, 2025, as it read at the time, and that continue to meet those requirements may continue to store, handle or use **flammable liquids** or **combustible liquids** in accordance with those requirements.

SECTION 5.6 COMPRESSED GAS CYLINDERS

Subsection 5.6.1. General

Alternative protection measures

5.6.1.1. (1) A requirement of this Section is deemed to be complied with if alternative protection measures are **approved** that, in the opinion of the **Chief Fire Official**, will provide protection for life safety and health similar to the protection provided by compliance with the requirement.

(2) A proposal for alternative protection measures referred to in Sentence (1) shall bear the signature and seal of a **Professional Engineer** or **Architect**, or both.

(3) This Section does not apply to facilities at which **compressed gases** are manufactured or cylinders are filled or distributed if the storage and handling of the **compressed gases** is in conformance with

- (a) CGA P-1, “Standard for Safe Handling of Compressed Gases in Containers”,
 - (b) NFPA 55, “Compressed Gases and Cryogenic Fluids Code”, or
 - (c) a procedure that bears the signature and seal of a **Professional Engineer**.
- (4) Articles 5.6.2.1. to 5.6.2.4. do not apply to **compressed gas** stored outdoors or in a **fire compartment** if the amount stored in each outdoor location or **fire compartment** does not exceed
- (a) 25 kg of flammable **compressed gas**, or
 - (b) 150 kg of non-flammable **compressed gas**.
- (5) Despite Sentence (4), Articles 5.6.2.1. to 5.6.2.4. apply to any amount of poisonous or corrosive **compressed gas**.
- (6) Subject to Sentence (7), **fire compartments** referred to in Sentence (4) shall have a **fire-resistance rating** not less than 45 min.
- (7) Existing **fire compartments** that are **approved** may have a **fire-resistance rating** less than 45 min.
- (8) **Compressed gas** stored in accordance with NFPA 55, “Compressed Gases and Cryogenic Fluids Code”, is deemed to comply with Subsection 5.6.2.

Protection against mechanical damage

- 5.6.1.2. (1) Cylinders containing **compressed gas** shall be protected against mechanical damage.
- (2) Cylinders containing **compressed gas** shall be stored to hold them securely in place
- (a) on **racks**,
 - (b) by nesting, or
 - (c) by **approved** methods or devices.

Acetylene cylinders

- 5.6.1.3. Except when being transported, acetylene cylinders shall be kept in an upright position.

Valve damage

- 5.6.1.4. Cylinders containing **compressed gas** which are in storage shall be protected against valve damage.

Temperature limitations

- 5.6.1.5. Cylinders containing **compressed gas** shall be stored in areas where the ambient air temperature does not exceed 52°C.

Indoor storage

- 5.6.1.6. If cylinders containing **compressed gas** are stored indoors, the cylinders shall be stored in a storage area or room that is dry and ventilated.

Oxygen cylinders

- 5.6.1.7. Oil or grease shall not be used for the lubrication of valves or fittings on oxygen cylinders.

Subsection 5.6.2. Storage

Outdoor storage of cylinders

- 5.6.2.1. (1) Cylinders containing **compressed gases** stored outdoors shall be
- (a) supported on raised concrete or other noncombustible platforms,
 - (b) located in an enclosure used for the sole purpose of such storage, and
 - (c) surrounded by a fence in conformance with Sentence 5.6.2.2.(1).

(2) Where a canopy is provided to protect outdoor storage in Sentence (1), the canopy shall be of **noncombustible construction**.

Fencing

5.6.2.2. (1) Fencing required in Article 5.6.2.1. shall be

- (a) firmly anchored and substantially constructed,
- (b) designed to discourage climbing,
- (c) not less than 1.8 m high,
- (d) provided with gates that shall be locked when the storage area is not staffed, and
- (e) kept clear of obstructions so that gates may be fully opened at all times.

(2) An outdoor storage area that exceeds 100 m² and is used for storage of cylinders containing **compressed gas** shall be arranged such that there is a clear space of not less than

- (a) 30 m between stored products and brush or forested areas, and
- (b) 6 m between stored products and uncontrolled grass or weeds.

Clearances from building openings

5.6.2.3. (1) Cylinders containing **compressed gas** and located outdoors shall be

- (a) at least 1.5 m from any **building** opening if the aggregate capacity of expanded gas is not more than 170 m³,
- (b) at least 7.5 m from any **building** opening if the aggregate capacity of expanded gas is over 170 m³ but not more than 500 m³, or
- (c) at least 15 m from any **building** opening if the aggregate capacity of expanded gas is over 500 m³.

(2) Sentence (1) does not apply if the **building** opening is into a room that conforms to Sentence 5.6.2.4.(1).

Indoor storage of flammable compressed gases

5.6.2.4. (1) Except as provided in Sentences (2), (3) and (5), cylinders containing flammable **compressed gas** stored indoors shall be located in a room that

- (a) is separated from the remainder of the **building** by a gas-tight **fire separation** having a **fire-resistance rating** not less than 2 h,
- (b) is located on an exterior wall of the **building**,
- (c) can be entered from the exterior,
- (d) has all **closures** that lead into the interior of the **building**
 - (i) equipped with self-closing devices in such a manner that the **closures** are kept closed when not in use, and
 - (ii) constructed so as to prevent migration of gases from the room into other parts of the **building**,
- (e) is constructed so that an exterior wall provides explosion venting
 - (i) in the ratio of 0.2 m² for each cubic metre of room volume, or
 - (ii) in the ratio computed in accordance with NFPA 68, "Standard on Explosion Protection by Deflagration Venting", except in no case less than 650 cm² of vent area for each cubic metre of room volume,
- (f) has ventilation that complies with Sentence (4),
- (g) does not contain fuel-fired equipment or high temperature heating elements, and
- (h) is used for no purpose other than the storage of **compressed gas**.

(2) Cylinders of flammable, lighter than air **compressed gas** are permitted to be stored outside of a room described in Sentence (1) provided that the aggregate capacity per **fire compartment** of expanded gas outside of the room is not more than,

- (a) 60 m³ in a **building** of **combustible construction** that is not **sprinklered**, and
- (b) 170 m³ in a **sprinklered building** or in a **building** of **noncombustible construction**.

(3) Cylinders of flammable **compressed gas** which are heavier than air may be stored in rooms other than those described in Sentence (1) if they are stored in a **fire compartment** having a **fire-resistance rating** of at least 45 min and

- (a) the aggregate capacity does not exceed 100 kg,
- (b) the number of cylinders does not exceed three,
- (c) the cylinders are not located in the **basement** or other areas below **grade**, and
- (d) the **fire compartment** has ventilation conforming to Sentence (4).

(4) The ventilation required by Clauses (1)(f) and (3)(d) shall be

- (a) mechanical ventilation to the outside that ensures at least one air change per hour, or
- (b) natural ventilation to the outside through non-closeable louvred openings with
 - (i) at least one opening no more than 0.3 m from the ceiling and one opening no more than 0.3 m from the floor,
 - (ii) all openings at ceiling level having an aggregate free opening area of at least 0.2 m² per 100 m² of the **floor area**,
 - (iii) all openings at floor level having an aggregate free opening area of at least 0.2 m² per 100 m² of the **floor area**, and
 - (iv) the openings located to ensure cross ventilation.

(5) “Single trip” non-refillable cylinders with water capacities of more than 375 g and less than 1.13 kg located within **mercantile occupancies** shall conform to the provisions stipulated in **Ontario Regulation 211/01 (Propane Storage and Handling)** made under the **Technical Standards and Safety Act, 2000**.

5.6.2.5. RESERVED

Poisonous compressed gas

5.6.2.6. Cylinders containing poisonous **compressed gas** shall not be stored in a room containing combustible or flammable material.

Reactive gases

5.6.2.7. (1) Subject to Sentences (2) and (3), cylinders containing **compressed gases** that may react with one another shall be stored in separate **fire compartments** having a **fire-resistance rating** not less than 1 h.

(2) Cylinders containing **compressed gases** that are lighter than air and that may react with each other may be stored in the same **fire compartment** if they are separated

- (a) by a distance of at least 7.5 m, or
- (b) by a concrete or masonry wall having a height of at least 2.0 m and projecting at least 1.0 m beyond the cylinders.

(3) Cylinders containing **compressed gases** that may react with each other and are heavier than air may be stored in the same **fire compartment** if they are separated

- (a) by a distance of at least 15 m, or
- (b) by a concrete or masonry wall having a height of at least 1.5 m, and projecting such that the minimum distance that vapour can travel between two cylinders of gases that may react with each other is not less than 15 m, measured horizontally.

Signs

5.6.2.8. Storage rooms shall have exterior signs with minimum 50 mm high letters indicating the nature of the **compressed gases**.

SECTION 5.7 RESERVED

SECTION 5.8 RESERVED

SECTION 5.9 RESERVED

SECTION 5.10 RESERVED

SECTION 5.11 HOT SURFACE APPLICATIONS

Subsection 5.11.1. Application

Application

5.11.1.1. This Section applies to hot surface applications, in or on **buildings**, that use open flame torches, bitumen kettles or other heat-producing devices.

Subsection 5.11.2. General

Exposed combustible materials

5.11.2.1. (1) If there is a possibility of sparks, flames or heat igniting combustible materials as a result of hot surface applications

- (a) combustibles within 5 m of the hot surface application shall be protected against ignition, and
- (b) openings in roofs, parapets or other **building** structures within 5 m of hot surface applications shall be covered or closed to prevent the passage of sparks or flames to adjacent areas.

(2) If it is not possible to cover or close openings described in Clause (1)(b), combustibles in the area exposed by the opening shall be protected against ignition.

Open flame torches

5.11.2.2. (1) An open flame torch shall only be applied to materials intended for hot surface applications and shall not directly expose

- (a) combustible materials, such as wood roof decks, cant strips, insulation and flashing,
- (b) voids, holes and skylights in the roof or roof deck, or
- (c) gas lines and electrical cables.

Bitumen kettles

5.11.2.3. (1) Bitumen kettles shall

- (a) not be located in a **building** or on a roof of a **building**,
- (b) not be located in a fire access route,
- (c) not be located within 3 m of a **building exit** or **means of egress**,
- (d) be provided with metal lids that are close-fitting and constructed of steel having a thickness of not less than No. 14 sheet metal gauge (2 mm),
- (e) be maintained free of excessive residue, and
- (f) when in operation
 - (i) be level, with most of the weight off the tires and legs,
 - (ii) not be heated above 260°C,
 - (iii) be kept clear of combustible debris or materials, and

- (iv) be under constant supervision by a person who is knowledgeable of operations and hazards and trained in the use of portable extinguishers.

(2) Despite Sentence (1), bitumen kettles may be located on concrete roofs if roof openings within 15 m are diked to prevent spilled asphalt run-off.

5.11.2.4. (1) After each daily use, mops that have been used for spreading bitumen shall be kept in a safe location

- (a) at least 3 m away from **buildings**, and
- (b) isolated from other combustibles.

Firewatch

5.11.2.5. (1) A firewatch shall be provided whenever an open flame torch or other ignition source is used for hot surface applications in or on a **building** and shall include

- (a) any area where combustible materials used in **building** construction or contents are located within 5 m of persons using an open flame torch or other ignition source,
- (b) any area of the **building** exposed as a result of unprotected roof or wall openings located within 5 m of persons using an open flame torch or other ignition source, and
- (c) any area where combustibles on the underside of roofs or the opposite side of walls might be ignited as a result of persons using an open flame torch or other ignition source.

(2) If a firewatch is required, the areas shall be toured by firewatch personnel at least once each hour.

(3) Facilities shall be provided to enable the firewatch personnel to

- (a) ensure that a fire warning is sounded to notify occupants, and
- (b) communicate with the **fire department**.

(4) The firewatch personnel shall be equipped with portable illumination and protective equipment.

(5) A firewatch shall be conducted from the beginning of a hot surface application until

- (a) at least 3 hours after the application ceases, or
- (b) at least 2 hours after the application ceases if a hand-held thermal imaging camera is used to assist in detecting hidden hot spots.

Portable extinguishers

5.11.2.6. (1) Portable extinguishers with a minimum rating of 4A:40B:C shall be

- (a) located within 6 m of persons using an open flame torch or other ignition source, and
- (b) readily available to all other persons in the area of hot surface applications and firewatch personnel.

(2) Portable extinguishers with a minimum rating of 4A:40B:C shall be located no further than 7.6 m and no closer than 1.5 m from a bitumen kettle.

SECTION 5.12 SPRAY APPLICATIONS USING FLAMMABLE AND COMBUSTIBLE MATERIALS

Subsection 5.12.1. Application and Separation

Application

5.12.1.1. (1) This Section applies to spray operations involving the use of **flammable liquids**, **combustible liquids** or combustible dry powders.

(2) Despite Sentence (1), this Section does not apply to spray operations that comply with Articles 5.1.3.1. and 5.12.1.2. and the design, operation and maintenance requirements in NFPA 33, “Standard for Spray Application Using Flammable or Combustible Materials”.

Separation for spray operations

5.12.1.2. If a spray operation is a **major occupancy** in a **building**, the spray operation shall be separated from the remainder of the **building** in accordance with Article 3.1.3.1. of Division B of the **Building Code**.

Subsection 5.12.2. Construction

General

5.12.2.1. (1) **Spray booths** and **spray rooms** shall have walls and ceilings that consist of steel frames covered with sheet steel having a minimum thickness of 1.14 mm or be of equivalent **noncombustible construction**.

(2) Walls and ceilings of **spray rooms** that are susceptible to paint residue accumulations and interior surfaces of **spray booths** shall be smooth and continuous.

(3) Floors of **spray booths** and **spray rooms** and the operator’s working area shall be of noncombustible materials.

Baffle plates

5.12.2.2. (1) **Spray booth** baffle plates shall be of noncombustible material and be removable or arranged to facilitate cleaning.

(2) **Spray booth** baffle plates shall not be located in exhaust ducts.

Overspray collection

5.12.2.3. (1) **Spray booths** and **spray rooms** shall be provided with overspray collection, such as filters or water wash, to prevent the build-up of combustible deposits on the exhaust fan and ductwork.

(2) Where filters are used as for overspray collection, supports and holders for the filters shall be constructed of noncombustible materials.

(3) Overspray collection filters shall be readily removable or accessible for cleaning or replacement.

(4) Filters shall not be alternately used for different types of coating materials if the combination of materials might result in spontaneous heating or ignition.

(5) Maintenance procedures shall be established to ensure that overspray collection filters are replaced before excessive restriction to airflow occurs.

(6) Overspray collectors shall be inspected after each period of use and clogged filters shall be discarded and replaced.

(7) A water-wash filtration system shall be used when applying materials known to be highly susceptible to spontaneous heating or spontaneous ignition.

Fan blades and casings

5.12.2.4. Fan blades and casings in exhaust blowers for **spray booths** and **spray rooms** shall be non-ferrous, or the fan shall be constructed so that a movement of the wheel or shaft will not cause two ferrous parts of the fan to rub or strike together.

Subsection 5.12.3. Ventilation

Ventilation

- 5.12.3.1. (1) Ventilation shall be provided in all **spraying areas** to maintain
- (a) the concentration of flammable vapours at or below 25% of their **lower explosive limit**, and
 - (b) the concentration of **combustible dusts** at or below 50% of their **minimum explosible concentration** or 15g/m³ when the **minimum explosible concentration** cannot be established.

Exhaust for spray booths

5.12.3.2. Subject to Article 5.12.3.3., the exhaust air velocity at any opening in a **spray booth** shall be at least 30 m/min.

Exhaust for electrostatic spraying

5.12.3.3. Electrostatic spraying shall have an exhaust air velocity of at least 18 m/min at any opening in a **spray booth**.

Combined ducting

5.12.3.4. A separate exhaust duct shall be provided for each **spray booth**, except that a common duct may be used if it serves **spray booths** having a combined open frontal area of not more than 1.8 m².

Exhaust air

5.12.3.5. Air exhausted from spray operations shall not be recirculated, except where recirculation is acceptable, as described in NFPA 33, “Standard for Spray Application Using Flammable or Combustible Materials”.

Monitoring air velocity

5.12.3.6. (1) Gauges or alarms that indicate when the air velocity is less than the air velocity required by Article 5.12.3.2. or 5.12.3.3. shall be installed for **spray booths**.

(2) When the gauge or alarm indicates that the air velocity is less than that required by Article 5.12.3.2. or 5.12.3.3., immediate corrective action shall be taken to remedy the condition that has resulted in the reduction of the ventilation.

Subsection 5.12.4. Exhaust Ducts

Duct support and construction

5.12.4.1. Exhaust ducts for **spray booths** and **spray rooms** shall be securely supported and constructed of sheet steel in accordance with Table 5.12.4.A.

TABLE 5.12.4.A.

Forming Part of Article 5.12.4.1.

Maximum Dimension of Duct	Minimum Thickness of Sheet Steel, mm
Up to 200 mm incl.	0.56
Over 200 mm to 450 mm incl.	0.69
Over 450 mm to 750 mm incl.	0.86
Over 750 mm	1.14

Clearances

5.12.4.2. Subject to Article 5.12.4.3., a clearance of 457 mm shall be maintained between unprotected combustible materials and ducts venting **spray booths** and **spray rooms**.

Collars

5.12.4.3. (1) Where exhaust ducts pass through combustible roofs or **partitions**, metal collars shall provide not less than a 100 mm clearance between the duct and combustible material.

(2) The space between the duct and combustible material shall be sealed with noncombustible insulating material.

Access doors

5.12.4.4. Exhaust ducts for **spray booths** and **spray rooms** shall be provided with access doors for cleaning purposes.

Exhaust outlet locations

5.12.4.5. (1) Except for water-wash filtration systems, the exhaust outlet to atmosphere from **spray booths** and **spray rooms** shall

- (a) be 1.8 m from any combustible exterior wall or roof, and
- (b) be located so that the air does not discharge toward any combustible surface or unprotected opening within 7.5 m.

Subsection 5.12.5. Electrical Equipment

Electrical equipment

5.12.5.1. Electrical equipment within the **spraying area**, including lighting fixtures, shall conform to Part 1, Sections 18 and 20 of the **Electrical Safety Code** made under the **Electricity Act, 1998**.

Motors for exhaust fans

5.12.5.2. Electric motors for exhaust fans shall not be placed inside **spray booths**, **spray rooms** or ducts.

Grounding

5.12.5.3. Metal parts of **spray booths**, exhaust ducts and piping systems conveying **flammable liquids** or **combustible liquids** shall be electrically grounded.

Subsection 5.12.6. Flammable Liquids and Combustible Liquids

Storage and handling

5.12.6.1. **Flammable liquids** and **combustible liquids** for use in **spraying areas** shall be stored and handled in conformance with Part 4, and at no time shall the amount of **flammable liquids** and **combustible liquids** in the **spraying areas** exceed one day's supply.

Paint storage

5.12.6.2. **Flammable liquids** and **combustible liquids** shall be kept in **closed containers** when not in use.

Thinners and solvents

5.12.6.3. Thinners and solvents shall be dispensed only from **listed** and labelled safety cans.

Pump discharge relief valves

5.12.6.4. Where **flammable liquids** are supplied to spray nozzles by positive displacement pumps, the pump discharge line shall be provided with a suitable relief valve discharging to the pump suction or to a safe remote location.

Subsection 5.12.7. Control of Fire Hazards

Interlocks

5.12.7.1. (1) The spraying equipment for **spray booths** and **spray rooms** shall be interlocked to shut down in the event of

- (a) a failure of the ventilation system,
- (b) a failure of the circulating water pump of a water-wash filtration system, or
- (c) a failure of the filter roll-down mechanism of an overspray collection system.

Cleaning and residue disposal

5.12.7.2. (1) The inner surfaces of **spray booths** and **spray rooms** shall be cleaned of combustible residue as often as necessary to prevent a fire hazard.

(2) Combustible residue from cleaning operations shall, on the same day as the cleaning operations, be removed from the premises or placed in receptacles conforming to Sentence 2.4.1.3.(3).

(3) Strippable coatings or removable combustible coverings, such as thin paper and static dissipative plastic sheets, may be used on walls and floors in **spray booths** and **spray rooms** to facilitate cleaning operations.

Filter pads and rolls

5.12.7.3. Discarded filter pads and filter rolls shall be removed to a safe location or placed in a water-filled metal container and disposed of after each day's operation.

5.12.7.4. RESERVED

Heating equipment

5.12.7.5. **Space-heating appliances**, steam pipes and other hot surfaces shall not be located in an area subject to accumulation of deposits of combustible residue from spray operations.

Ignition sources

5.12.7.6. Open flame or spark producing devices shall not be used within a **spraying area**, unless separated from the area by a vapour-tight **fire separation** having a **fire-resistance rating** not less than 1 h.

Subsection 5.12.8. Fire Protection Equipment

Portable extinguishers

5.12.8.1. Portable extinguishers shall be installed near **spraying areas** in conformance with Section 6.2.

Sprinkler installations

5.12.8.2. (1) Except as permitted in Sentences (2) and (3), automatic sprinkler protection shall be provided in each **spraying area**, **spray booth** and **spray room** in conformance with NFPA 13, "Standard for the Installation of Sprinkler Systems".

(2) Where spraying operations are confined within a **spray booth**, fire protection may be provided for the **spray booth** only, in conformance with NFPA 33, "Standard for Spray Application Using Flammable or Combustible Materials".

(3) This Article does not apply where the existing situation is **approved** and does not endanger life safety, or **approved** alternative measures to the requirements set out in this Article are taken to provide life safety.

Sprinkler head protection

5.12.8.3. (1) Sprinkler heads in **spray booths** and **spray rooms** shall be protected with lightweight paper bags or cellophane bags having a thickness of not more than 0.08 mm.

(2) Bags protecting sprinkler heads shall be replaced before they have accumulated deposits that impair the timely operation of the sprinkler head.

Subsection 5.12.9. Drying Operations

Spray booths used for drying

5.12.9.1. Except as permitted in Article 5.12.9.4., **spray booths**, **spray rooms** or other enclosures used for spraying operations shall not be used for drying by any arrangement that could cause an increase in the surface temperatures of the **spray booths**, **spray rooms** or other enclosures.

Location of equipment

5.12.9.2. Except as provided in Articles 5.12.9.3. and 5.12.9.4., drying or curing equipment that utilizes components capable of producing ignition, such as an open flame, a spark, or a hot surface, shall not be installed in or near a **spraying area**.

Location near spraying area

5.12.9.3. (1) Equipment described in Article 5.12.9.2. may be installed in an area adjacent to the **spraying area** provided the adjacent area is equipped with a ventilating system arranged to

- (a) purge the drying space before the heating system can be started,
- (b) maintain the atmosphere at any source of ignition at or below 25% of the **lower explosive limit** of any combustible or flammable materials in use, and
- (c) automatically shut down the heating system in the event of failure of the ventilating system.

Spray booths used for drying

5.12.9.4. (1) **Spray booths** may be used for drying operations where

- (a) the **spray booth** conforms to the appropriate requirements for drying ovens in Section 5.18,
- (b) the interior of the enclosure is kept reasonably free of overspray deposits,
- (c) portable drying apparatus, if used, is of the infrared type, and such apparatus, wiring and connections are removed from the enclosure during spraying operations, and
- (d) interlocks are installed to
 - (i) prevent the use of spraying apparatus while the drying operation is taking place,
 - (ii) provide for the purging of the enclosure of spray vapours for a minimum of 3 min before the drying apparatus can be energized,
 - (iii) ensure that the ventilating system maintains the concentration of flammable vapours at or below 25% of the **lower explosive limit** within the enclosure during the drying process, and
 - (iv) ensure that the drying apparatus will automatically shut off in the event of failure of the ventilating system.

Subsection 5.12.10. Electrostatic Spraying

Application

5.12.10.1. This Subsection applies to electrostatic spray-coating processes involving the use of **flammable liquids** or **combustible liquids**.

Equipment location

5.12.10.2. (1) Electrical components, including transformers, power packs and control equipment for electrostatic spray applications, shall be located in an area where the vapour concentration of **flammable liquids** or **combustible liquids** cannot exceed 25% of the **lower explosive limit**.

(2) Sentence (1) does not apply to high voltage grids and their connections.

Interlocks

5.12.10.3. (1) Electrostatic spraying equipment shall be provided with automatic controls that will operate without a time delay to disconnect power to high voltage transformers and to signal the operator of the equipment if

- (a) the air supply system, the ventilating fan or the conveyor system stops,
- (b) a ground occurs at any point on the high voltage system, or
- (c) any clearances are reduced below those required by Article 5.12.10.5.

Insulators

5.12.10.4. Insulators shall be kept clean and dry.

Clearances

5.12.10.5. A clearance space that is equivalent to twice the sparking distance shall be maintained between the articles being painted and any electrodes or conductors.

Drip plates and screens

5.12.10.6. Drip plates and screens subject to paint deposits shall be removable for cleaning.

Insulating and grounding

5.12.10.7. High voltage components, including atomizing heads, shall be insulated and protected against mechanical damage and accidental contact or grounding.

Automatic grounding

5.12.10.8. An automatic means shall be provided for grounding the electrode system when it is de-energized.

Operating distances

5.12.10.9. Items being electrostatically sprayed shall be neither held by hand nor suspended in such a manner as to reduce the proper operating distance from the atomizing heads.

Distance to processing areas

5.12.10.10. Electrostatic spraying equipment shall be located 1.5 m from processing equipment and isolated from other areas by grounded guards and fences of conducting material.

Surface temperatures

5.12.10.11. The surface temperature of equipment in a **spraying area** shall not exceed 66°C.

Precautions against shock

5.12.10.12. High voltage circuits shall be designed so that any discharge will not ignite vapour-air mixtures or create a shock hazard.

Spray gun energy supply

5.12.10.13. The energy supply to hand-held spray guns shall be controlled by a switch that also controls the coating material supply.

Spray gun operation

5.12.10.14. Spray gun handles shall be grounded and have a metallic connection that is in direct contact with the operator's hand during spraying.

Grounding

5.12.10.15. All electrically conductive objects in a **spraying area** shall be grounded.

Paint accumulations

5.12.10.16. Hooks and other supports for sprayed items shall be kept clean and free of paint.

Warning signs

- 5.12.10.17. (1) Signs shall be conspicuously posted near a **spraying area** that
- (a) indicate the minimum clearance space required by Article 5.12.10.5.,
 - (b) indicate the need for grounding of all electrically conductive objects in the **spraying area**, and
 - (c) contain the phrase "DANGER - Electrostatic Spray Coating Area", or otherwise identify the **spraying area** as dangerous.

Fixed extinguishing equipment

5.12.10.18. **Spraying areas** shall be located in rooms protected by **listed** and labelled automatic fixed extinguishing equipment.

Subsection 5.12.11. Dry Powder-Coating Using Spray Guns***Application and location***

5.12.11.1. (1) This Subsection applies to coating operations involving the use of combustible dry powders applied by powder spray guns or electrostatic powder spray guns.

- (2) Coating operations referred to in Sentence (1) shall be performed in
- (a) ventilated and enclosed powder-coating rooms of **noncombustible construction**, or
 - (b) **spray booths**.

Location of electrical equipment

5.12.11.2. With the exception of charging electrodes and their connections, transformers, power packs, control apparatus and all other electrical components shall be located outside the powder-coating area.

Working temperatures

5.12.11.3. If a part to be coated is preheated prior to the application of the powder, the temperature of the part shall not exceed the ignition temperature of the powder being used.

Grounding

5.12.11.4. (1) Powder transport, application and recovery equipment shall be grounded.

(2) A sign shall be conspicuously posted indicating the necessity of grounding the equipment and objects identified in Sentence (1).

Separators

5.12.11.5. Separators shall be used to prevent tramp iron or other spark-producing materials from being introduced into the powders being applied.

Recovery systems

5.12.11.6. Waste air-suspended powders shall be removed by exhaust ducts to a powder recovery system and shall not be released to the outside atmosphere.

Vacuum cleaning

5.12.11.7. Accumulations of waste dust from dry powder finishes shall be removed by vacuum cleaning equipment.

Contact points

5.12.11.8. Objects being coated shall be maintained in contact with the conveyor or other support.

Hangers

5.12.11.9. Hangers for objects being coated shall be kept clean and have sharp points or edges at areas of contact.

Smoking prohibited

5.12.11.10. (1) Smoking shall not take place in powder-coating areas and in powder storage rooms.

(2) Signs prohibiting smoking that meet the requirements of Article 2.4.3.2. shall be conspicuously posted in all powder-coating areas and powder storage rooms.

SECTION 5.13 DIP TANKS

Subsection 5.13.1. Location

Room design

5.13.1.1. (1) If a dip tank operation involves **flammable liquids** or **combustible liquids** and the quantity of liquids exceeds 45 L or the liquid surface area exceeds 0.42 m², the operation shall be

- (a) conducted in a room designed for that purpose, and
- (b) separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 2 h.

Prohibition for basements

5.13.1.2. Dip tanks shall not be located in **basements**.

Subsection 5.13.2. Construction

Floors

5.13.2.1. The floor of any room where dip tanks are located shall be made liquid-tight with material that is impervious to the liquid in the tank, have permanent curbs and be drained to a place of safe discharge.

Materials

5.13.2.2. (1) Dip tanks and drain boards shall be constructed of noncombustible material with steel, reinforced concrete or masonry supports.

(2) Drain boards shall be arranged to drain back to the dip tank.

Height above floor

5.13.2.3. The top of a dip tank shall not be less than 150 mm above the floor of the room in which it is located.

Cover construction

5.13.2.4. Dip tank covers as required in Articles 5.13.6.2. and 5.13.6.3. shall be of noncombustible materials.

Cover design

5.13.2.5. Dip tank covers shall overlap the sides of the tank by 25 mm and shall have a recess or flange extending down around the tank.

Cover maintenance

5.13.2.6. Dip tank covers shall be maintained in good operating condition.

Subsection 5.13.3. Overflow and Drain Pipes**Liquid levels**

5.13.3.1. The liquid level in a dip tank shall be kept not less than 150 mm below the top of the tank.

Overflow pipes

5.13.3.2. Dip tanks having a capacity in excess of 550 L or having a liquid surface area in excess of 1 m² shall be equipped with a properly trapped overflow pipe that leads to a safe location outside the **building** or to a closed, vented salvage tank conforming to Subsection 5.13.4.

Location of overflow

5.13.3.3. The centre line of the overflow connection to a dip tank shall be 150 mm below the top of the tank.

Overflow size

5.13.3.4. Overflow pipe sizes for dip tanks shall conform to Table 5.13.3.A.

TABLE 5.13.3.A.

Forming Part of Article 5.13.3.4.

Size of Tank, L	Overflow Pipe Size Required, mm
0 - 46	50
47 - 160	65
161 - 350	75
351 - 700	100
701 - 1025	125

TABLE 5.13.3.A.
(continued)

Size of Tank, L	Overflow Pipe Size Required, mm
1026 - 1500	150
1501 and over	200

Overflow connection

5.13.3.5. Overflow pipes shall be connected to dip tanks by a flared outlet.

Piping connections

5.13.3.6. Piping connections for drains and overflow lines shall be designed so as to allow for easy access to their interiors for cleaning purposes.

Bottom drains

5.13.3.7. Dip tanks of over 2300 L liquid capacity shall be equipped with bottom drains capable of being operated both automatically and manually to drain the tank quickly in the event of fire.

Salvage tank

5.13.3.8. Bottom drains from dip tanks shall be trapped and shall discharge to a closed, vented salvage tank.

Drain size

5.13.3.9. Bottom drain sizes for dip tanks shall conform to Table 5.13.3.B.

TABLE 5.13.3.B.
Forming Part of Article 5.13.3.9.

Capacity of Dip Tank, L	Diameter of Bottom Drain Pipe, mm
2300 - 3425	75
3426 - 4550	100
4551 - 11500	125
11501 - 18250	150
18251 and over	200

Manual operation of bottom drains

5.13.3.10. Manual operation of bottom drains shall be from an accessible location not affected by a fire in or around the dip tank.

Automatic pumps

5.13.3.11. Where gravity flow is not practical, automatic pumps shall be installed on drain lines from dip tanks.

Pump for salvage tank

5.13.3.12. Where salvage tanks are used, pumping arrangements shall be provided for the transfer of their contents for disposal.

Subsection 5.13.4. Salvage Tanks

Use

5.13.4.1. Salvage tanks shall be used only for temporary storage purposes.

Capacity

5.13.4.2. The capacity of a salvage tank shall be 20% greater than the capacity of the dip tank or tanks to which it is connected.

Location

5.13.4.3. Salvage tanks shall be located underground outside the **building**, or inside a **building** in an enclosure separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** of not less than 2 h.

Vent pipes

5.13.4.4. Salvage tanks shall be provided with vent pipes that meet the requirements of Subsection 4.3.5. for aboveground **storage tanks** or Subsection 4.3.10. for underground **storage tanks**.

Subsection 5.13.5. Control of Fire Hazards

Ventilation

5.13.5.1. Ventilation shall be provided to confine all flammable vapour concentrations exceeding 25% of the **lower explosive limit** to within 600 mm of the dip tank, drain board and freshly coated work.

Interlock for dipping conveyor

5.13.5.2. Ventilating systems shall be arranged so that the failure of any ventilation fan as sensed by air flow will automatically stop the dipping conveyor systems and sound an alarm.

Interlock for heating

5.13.5.3. The heating system used in drying operations shall be interlocked so that it cannot be started until the associated ventilation system is in operation.

Conveyor systems

5.13.5.4. Conveyor systems utilized in conjunction with dip tanks shall be designed to stop automatically with the actuation of an automatic fixed extinguishing system or a manual fire alarm.

Purging interlocks

5.13.5.5. Where there is a possible source of ignition in a drying operation, interlocks shall be installed to provide for purging before the heating system can be started and for automatic shutdown if the ventilation system should fail.

Electrical installations

5.13.5.6. Where **flammable liquids** and **combustible liquids** contained in dip tanks are heated or have a **flash point** below 43°C, the electrical installation shall conform to the **Electrical Safety Code** made under the **Electricity Act, 1998**.

Flammable and combustible liquids

5.13.5.7. (1) The storage and handling of **flammable liquids** and **combustible liquids** shall be in conformance with Part 4.

(2) The total number of containers for **flammable liquids** and **combustible liquids** in a dip tank area shall not exceed that required for one day's operations.

Smoking and ignition sources prohibited

5.13.5.8. Smoking shall not take place and open flames, spark-producing devices and heated surfaces having a temperature sufficient to ignite vapours shall not be used in the vapour area of a dip tank.

Signs prohibiting smoking

5.13.5.9. Signs that prohibit smoking and that conform to Article 2.4.3.2. shall be posted conspicuously in the vicinity of dip tanks.

Subsection 5.13.6. Fire Protection

Automatic sprinklers

5.13.6.1. Dip tanks shall be located only in rooms protected by an automatic sprinkler system installed in conformance with NFPA 13, "Standard for the Installation of Sprinkler Systems".

Tank covers and extinguishing systems

5.13.6.2. (1) Dip tanks with over 550 L capacity or with over 1 m² liquid surface area shall be protected by

- (a) a cover actuated by a device that
 - (i) automatically closes the cover in the event of a fire, and
 - (ii) permits manual operation of the cover, or
- (b) an **approved** automatic extinguishing system of a water spray, foam, carbon dioxide or dry chemical type.

Flammable liquids or combustible liquids

5.13.6.3. Dip tanks containing either a **flammable liquid** or **combustible liquid** with a **flash point** less than 43°C or a heated **combustible liquid** giving off flammable vapours shall conform to Article 5.13.6.2. when the capacity exceeds 45 L or when the liquid surface area exceeds 0.4 m².

Portable extinguishers

5.13.6.4. Areas in the vicinity of dip tanks shall be provided with portable extinguishers in conformance with Section 6.2.

SECTION 5.14 SPECIAL PROCESSES INVOLVING FLAMMABLE AND COMBUSTIBLE MATERIALS

Subsection 5.14.1. Quench Tanks

Location

5.14.1.1. (1) Quench tanks shall be located as far as practical from annealing, hardening and tempering furnaces.

(2) Quench tanks shall not be located on or near combustible floors.

Hoods and vents

5.14.1.2. Quench tanks shall be provided with a noncombustible hood and vent exhausting to the outside to prevent the accumulation and condensation of vapours from the process.

Vent design

5.14.1.3. Vents for quench tanks shall conform to the requirements for **flue pipes** in Section 2.6.

High temperature limit switches

5.14.1.4. (1) A high temperature limit switch shall be provided to sound an alarm, shut off heat and stop conveyors when a **flammable liquid** or **combustible liquid** reaches 28°C below its **flash point** in a quench tank.

(2) The temperature-sensing element for the high temperature limit switch in Sentence (1) shall be located close to the surface of the liquid and be protected from damage.

Electrical installations

5.14.1.5. Electrical installations conforming to the requirements for dip tanks in Article 5.13.5.6. shall be provided for quench tanks of over 1900 L capacity whose liquid surface area exceeds 2.5 m².

Air pressure

5.14.1.6. Air under pressure shall not be used to fill or agitate oil in quench tanks.

Working temperatures

5.14.1.7. A quench tank shall be designed so that the maximum workload is incapable of raising the working temperature of the cooling medium to within 28°C of its **flash point**.

Subsection 5.14.2. Flow-Coating Operations*Application*

5.14.2.1. (1) This Subsection applies to flow-coating operations using **flammable liquids** or **combustible liquids**.

(2) The requirements in Section 5.13 for dip tanks shall also apply to flow-coating operations described in Sentence (1).

(3) The sump area and any area on which coating liquid flows shall be considered as the dip tank area.

Supply

5.14.2.2. (1) **Flammable liquids** and **combustible liquids** shall be supplied by

- (a) direct low pressure pumping arranged to shut down automatically by means of **listed** and labelled devices in the event of fire, or
- (b) a gravity tank not exceeding 45 L in capacity.

Subsection 5.14.3. Roll Coating Processes*Application*

5.14.3.1. (1) This Subsection applies to roll-coating processes in which **flammable liquids** or **combustible liquids** are applied to products or materials by bringing them into contact with a roller that is coated with the coating liquid.

(2) The requirements in Section 5.13 for dip tanks shall also apply to roll-coating processes described in Sentence (1).

Grounding

5.14.3.2. (1) Rotating parts shall be grounded.

(2) Static collectors shall be installed where the material being coated leaves each rotating part.

Location

5.14.3.3. Operations involving materials that have been freshly coated with a liquid containing solvents having a **flash point** of less than 43°C shall be located in **sprinklered** rooms that are separated from other occupancies by **fire separations** having a **fire-resistance rating** not less than 2 h.

Subsection 5.14.4. Electrostatic Detearing Processes

Application

5.14.4.1. (1) This Subsection applies to electrostatic detearing processes involving the use of **flammable liquids** or **combustible liquids**.

(2) Protective finishing systems are deemed to satisfy the requirements of this Subsection if they comply with Article 5.1.3.1. and the design, operation and maintenance requirements in NFPA 33, “Standard for Spray Application Using Flammable or Combustible Materials”.

Equipment location

5.14.4.2. (1) Electrical components, including transformers, power packs and control equipment for the electrostatic removal of excess coating material (detearing), shall be located in an area where the vapour concentration of **flammable liquids** or **combustible liquids** cannot exceed 25% of the **lower explosive limit**.

(2) Sentence (1) does not apply to high voltage grids and their connections.

Interlocks

5.14.4.3. (1) Electrostatic detearing equipment shall be provided with automatic controls that will operate without a time delay to disconnect power to high voltage transformers and to signal the operator of the equipment if

- (a) the air supply system, the ventilating fan or the conveyor system stops,
- (b) a ground occurs at any point on the high voltage system, or
- (c) any clearances are reduced below those required by Article 5.14.4.5.

Insulators

5.14.4.4. Insulators shall be kept clean and dry.

Clearances

5.14.4.5. (1) A clearance space that is equivalent to twice the sparking distance shall be maintained between articles being deteared and electrodes or conductors.

(2) A sign shall be conspicuously posted near the detearing area indicating the minimum clearance space required.

Drip plates and screens

5.14.4.6. Drip plates and screens subject to paint deposits shall be removable for cleaning.

Insulating and grounding

5.14.4.7. High voltage components shall be insulated and protected against mechanical damage and accidental contact or grounding.

Automatic grounding

5.14.4.8. An automatic means shall be provided for grounding the electrode system when it is de-energized.

Precautions against shock

5.14.4.9. High voltage circuits shall be designed so that any discharge will not ignite vapour-air mixtures or create a shock hazard.

Subsection 5.14.5. Automobile Undercoating*Spray operations*

5.14.5.1. Automobile undercoating spray operations shall conform to the requirements of Section 5.12 or to the requirements in this Subsection.

Undercoating materials

5.14.5.2. (1) Automobile undercoating materials shall have a **flash point** of not less than 37.8°C.

(2) Where the **flash point** of an automobile undercoating is less than 60°C, it shall be applied in a work area where

- (a) there are no work pits,
- (b) there is a fan, that provides mechanical ventilation during the application, cleaning and drying cycles,
 - (i) with nonferrous blades, or so constructed that a movement of the wheel or shaft will not permit two ferrous parts of the fan to rub or strike, and
 - (ii) that ensures that the concentration of vapour does not exceed 25% of the **lower explosive limit**,
- (c) air movement from the air intake and exhaust system is along the length of the vehicle being undercoated, and
- (d) air is exhausted at a level approximately 1 m above the floor.

Ignition sources

5.14.5.3. (1) Work stations in Article 5.14.5.2. shall have no source of ignition located within 6 m horizontally of the work area or in the area above it.

(2) Signs prohibiting smoking that conform to Article 2.4.3.2. shall be posted at the outer limits of the work area.

Electrical installations

5.14.5.4. Except for overhead lighting that is totally enclosed and sealed with gaskets, electrical wiring and equipment within the area of hazard described in Article 5.14.5.3. shall conform to Article 5.1.3.1.

Storage and handling

5.14.5.5. The storage and handling of **flammable liquids** and **combustible liquids** shall be in conformance with Part 4.

Portable extinguishers

5.14.5.6. Portable extinguishers shall be located so that there is one portable extinguisher having a 20B:C rating immediately accessible to each work station described in Article 5.14.5.2.

Refuse disposal

5.14.5.7. All areas where automobile undercoating is used shall be kept clean of undercoating deposits and refuse, which shall be placed in covered metal receptacles.

Subsection 5.14.6. Dry Powder-Coating Using Fluidized Beds***Application and location***

5.14.6.1. (1) This Subsection applies to coating operations involving the use of combustible dry powders applied by fluidized beds or electrostatic fluidized beds.

- (2) Coating operations referred to in Sentence (1) shall be performed in
- (a) ventilated and enclosed powder-coating rooms of **noncombustible construction**, or
 - (b) ventilated and enclosed powder-coating enclosures of **noncombustible construction**.

(3) Protective finishing systems are deemed to satisfy the requirements of this Subsection if they comply with Article 5.1.3.1. and the design, operation and maintenance requirements in NFPA 33, "Standard for Spray Application Using Flammable or Combustible Materials".

Location of electrical equipment

5.14.6.2. With the exception of charging electrodes and their connections, transformers, power packs, control apparatus and all other electrical components shall be located outside the powder-coating area.

Working temperatures

5.14.6.3. (1) Where a part to be coated is preheated prior to the application of the powder, the temperature of the part shall not exceed the ignition temperature of the powder being used.

- (2) The surface temperature of electrostatic fluidized bed coating areas shall not exceed 66°C.

Grounding

5.14.6.4. (1) Powder transport, application and recovery equipment shall be grounded.

(2) Electrically conductive objects within the charging influence of the electrodes of electrostatic fluidized beds shall be grounded.

(3) A sign shall be posted indicating the necessity of grounding equipment and objects identified in Sentences (1) and (2).

Electrical discharges

5.14.6.5. High voltage circuits in electrostatic fluidized beds shall be designed so that any discharge produced when the charging electrodes of the bed are approached or contacted by a grounded object will not be of sufficient intensity to ignite any powder-air mixture likely to be encountered or result in any appreciable shock hazard.

Handling of spark-producing materials

5.14.6.6. Means shall be provided to prevent tramp iron or other spark-producing materials from being introduced into the powders being applied.

Recovery systems

5.14.6.7. All waste air-suspended powders shall be removed by exhaust ducts to a powder recovery system and shall not be released to the outside atmosphere.

Waste dust removal

5.14.6.8. Accumulations of waste dust from dry powder finishes shall be removed using the methods set out in Article 5.10.1.2.

Contact points

5.14.6.9. Objects being coated shall be maintained in contact with the conveyor or other support.

Hangers

5.14.6.10. Hangers for objects being coated shall be kept clean and have sharp points or edges at areas of contact.

Smoking prohibited

5.14.6.11. (1) Smoking shall not take place in powder-coating areas and in powder storage rooms.

(2) Signs prohibiting smoking that conform to Article 2.4.3.2. shall be conspicuously posted at all powder-coating areas and powder storage rooms.

Subsection 5.14.7. Organic Peroxides and Dual Component Coatings

Location of spraying operations

5.14.7.1. Spraying operations involving the use of organic peroxides and other dual component coatings shall be conducted in **sprinklered spray booths** as described in Sentence 5.12.8.2.(1).

Initiator storage

5.14.7.2. Organic peroxide initiators shall be stored so that they will be kept away from contact with other stored materials.

Handling equipment

5.14.7.3. Handling equipment, including spray guns, which is specifically designed for use with organic peroxides shall be used to apply such coatings.

Containers

5.14.7.4. Separate containers shall be used exclusively for the storage of resin and organic peroxide.

Pressure tank inserts

5.14.7.5. Organic peroxide pressure tank inserts shall be constructed of stainless steel, polyethylene or a material that is equally inert to organic peroxide.

Elimination of foreign materials

5.14.7.6. Precautions shall be taken to prevent any mixing of foreign materials with dusts or overspray residues resulting from the sanding or spraying of finishing materials containing organic peroxides.

Subsection 5.14.8. Floor Finishing

Application

5.14.8.1. Floor finishing operations involving the use of **flammable liquids** or **combustible liquids** shall conform to Part 4 and this Subsection.

Operations below grade

5.14.8.2. Floor finishing operations involving the use of **flammable liquids** shall not be performed below grade.

Public access

5.14.8.3. Any part of a **building** where floor finishing operations are done shall not be open to the public.

Ventilation

5.14.8.4. (1) Ventilation shall be provided in areas where floor finishing operations are done to prevent the accumulation of flammable vapours.

(2) Ventilation required in Sentence (1) is permitted to be provided by mechanical systems if their use does not constitute a source of ignition.

Prohibited activities during flammable liquid application

5.14.8.5. (1) During the application of **flammable liquids** and for at least 1 h after such application

- (a) all mechanical systems, electric motors, and other equipment that might be a source of ignition shall be shut down,
- (b) smoking shall not take place, and
- (c) open flames shall not be used.

Waste receptacles

5.14.8.6. A receptacle conforming to Sentence 2.4.1.3.(3) shall be provided for all waste rags and materials used in operations involving **flammable liquids** or **combustible liquids**, and the contents shall be removed daily and disposed of in a manner that will not create a fire hazard.

Subsection 5.14.9. Bowling Alleys

Application

5.14.9.1. This Subsection applies to bowling alleys.

Notification

5.14.9.2. The **Chief Fire Official** shall be notified when bowling alleys are to be resurfaced.

Floor finishing

5.14.9.3. Floor finishing operations shall be carried out in accordance with Subsection 5.14.8.

Pin refinishing

5.14.9.4. (1) Pin refinishing shall be carried out

- (a) in a **building** provided for that purpose, or
- (b) in a room at or above **grade** separated from the **building** it is located in by a **fire separation** having a **fire-resistance rating** not less than 1 h.

Smoking prohibited

5.14.9.5. (1) Smoking shall not take place in a room where pin refinishing occurs.

(2) Signs prohibiting smoking that meet the requirements of Article 2.4.3.2. shall be conspicuously posted in any place where pin refinishing occurs.

Flammable and combustible liquids

5.14.9.6. The storage, handling and use of **flammable liquids** and **combustible liquids** shall meet the requirements of Part 4.

5.14.9.7. (1) During the pin refinishing process, a receptacle that complies with Sentence 2.4.1.3.(3) shall be provided for waste rags and materials used in operations involving flammable finishes or solvents.

(2) The contents of each receptacle referred to in Sentence (1) shall be removed daily and disposed of in an **approved** manner.

Subsection 5.14.10. Drycleaning and Dyeing Plants*Application*

5.14.10.1. (1) Drycleaning plants shall comply with NFPA 32, “Standard for Drycleaning Plants”.

(2) Despite Sentence (1) and subject to Article 5.14.10.2., **flammable liquids** shall not be used for any purpose in drycleaning and dyeing plants.

Use and storage of flammable liquids

5.14.10.2. (1) **Flammable liquids** may be used as a local application to remove spots and stains if the liquids

- (a) are stored in containers that have a capacity of not more than 1 L,
- (b) do not exceed more than 25 L in aggregate quantity, and
- (c) are dispensed from plastic containers that have a capacity of not more than 0.5 L.

(2) Despite Sentence (1), existing drycleaning plants and dyeing plants may be **approved** if the **Chief Fire Official** is satisfied that the level of fire safety specified in Sentence (1) is provided.

Subsection 5.14.11. Hazardous Extraction Operations*Application*

5.14.11.1. This subsection applies to **hazardous extraction** operations.

Prohibited locations

5.14.11.2. A **hazardous extraction** operation shall not be performed

- (a) in a **basement**, or
- (b) in a **building** containing a **residential occupancy**.

SECTION 5.15 RESERVED

SECTION 5.16 FUMIGATION AND THERMAL INSECTICIDAL FOGGING

Subsection 5.16.1. Application

Application

5.16.1.1. (1) This Section applies to the fumigation or thermal fogging of **buildings** where this activity creates a fire or explosion hazard, including the fumigation of equipment or commodities within structures, tanks or bins or under tarpaulins.

(2) Articles 5.16.2.1. and 5.16.2.2. do not apply to industries that conduct frequent fumigation operations on a routine basis where **approved** prior to the conducting of the operations.

Subsection 5.16.2. Safety Precautions

Notification of fire department

5.16.2.1. (1) Except as permitted in Sentence 5.16.1.1.(2), the **fire department** shall

- (a) be notified in writing at least 24 h before any **building** is to be closed for fumigation, and
- (b) be advised of the chemicals to be used, the proposed date and time of use, the types of respiratory protective devices required and the degree of flammability of the fumigant or fog being used.

Notification of adjacent premises

5.16.2.2. Except as permitted in Sentence 5.16.1.1.(2), prior notice shall be given to the occupants of any premises adjacent to that in which fumigation or thermal insecticidal fogging is to take place.

Ignition sources

5.16.2.3. Flames and other sources of ignition shall be eliminated in a **building** undergoing fumigation or thermal insecticidal fogging.

Power supply

5.16.2.4. Electric power supply shall be shut off to the premises undergoing fumigation or thermal insecticidal fogging.

Air temperature

5.16.2.5. The air temperature in a **building** undergoing fumigation or thermal insecticidal fogging shall be kept sufficiently low to prevent the actuation of any sprinkler system.

Breathing apparatus

5.16.2.6. Protective breathing apparatus shall be made available at the premises undergoing fumigation or thermal insecticidal fogging for all persons in case of emergency.

Restricted entrance

5.16.2.7. (1) No unauthorized person shall be permitted to enter a premises undergoing fumigation or thermal insecticidal fogging until the premises has been ventilated and is safe.

(2) Warning signs shall be posted in a conspicuous location near every entrance to the premises being fumigated.

(3) One person shall be on duty at each entrance to the premises undergoing fumigation or thermal insecticidal fogging to prevent any unauthorized person from entering until such premises have been ventilated.

SECTION 5.17 HOT WORKS

Subsection 5.17.1. Application

Application

5.17.1.1. This Section applies to hot works that use open flames or produce heat or sparks, including cutting, welding, soldering, brazing, grinding, adhesive bonding, thermal spraying and thawing pipes.

Same

5.17.1.2. The installation, operation and maintenance of hot work equipment shall comply with CAN/CSA-W117.2, "Safety in Welding, Cutting and Allied Processes" and meet the requirements of this Section.

Subsection 5.17.2. Use and Maintenance of Equipment

Fuel gases

5.17.2.1. The operation of acetylene generating systems and the storage and generation of hot work fuel gases shall comply with NFPA 51, "Standard for Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting and Allied Processes".

Piping

5.17.2.2. Acetylene gas shall not be piped through copper or high copper content alloy, tubing, piping or fittings.

Cylinder storage

5.17.2.3. Cylinders stored inside **buildings** shall conform to the requirements in Section 5.6.

Cylinder caps and valves

5.17.2.4. Gas fuel cylinders, whether full or empty, whose valves are not in a recessed or protected location shall have their caps in place and their valves tightly closed when not in actual use.

Damaged equipment

5.17.2.5. Torches, regulators, hoses and other oxyacetylene hot work equipment which have been damaged shall not be used.

Equipment inspection

5.17.2.6. (1) Hot work equipment shall be **inspected** daily or prior to use for defects by personnel in charge of the equipment.

(2) Hot work equipment shall be **tested** monthly for leaks with a leak **test** solution.

(3) Leaks or defects found in hot work equipment shall be repaired prior to use.

Equipment not in use

5.17.2.7. Valves shall be closed and lines bled when equipment is not in actual use.

Lubrication

5.17.2.8. Oil or grease shall not be used for lubrication of hot work equipment.

Subsection 5.17.3. Prevention of Fires

Location of operations

5.17.3.1. (1) Hot work operations in **buildings** shall be carried out in areas that

- (a) are free of combustible and flammable contents, and
- (b) have walls, ceilings and floors of **noncombustible construction** or that are lined with noncombustible materials.

(2) When it is not practical to undertake hot work operations in areas described in Sentence (1), combustible and flammable materials shall either be kept at least 15 m from the work area or otherwise protected against ignition by sheet metal or other noncombustible material.

(3) Any process or activity that produces flammable gases or vapours, **combustible dusts** or **combustible fibres** in quantities sufficient to create a fire or explosion hazard shall be interrupted and the hazardous conditions shall be removed before any hot work is carried out.

Work adjacent to piping

5.17.3.2. When hot work is to be carried out near piping containing flammable gas, the section of the piping located within 1 m of the torch shall be covered with wet noncombustible insulating material 6 mm thick.

Work on containers

5.17.3.3. (1) Hot work shall not be performed on containers, equipment, or piping containing **flammable liquids**, **combustible liquids** or flammable gases unless

- (a) they have been cleaned and **tested** with a **listed** gas detector, such as one conforming to CSA C22.2 No. 152, "Combustible Gas Detection Instruments", to ascertain that they are free of explosive vapours, or
- (b) safety measures are taken in conformance with good engineering practice.

(2) Hot work operations shall not be undertaken on a totally enclosed container.

(3) At least one portable extinguisher conforming to Section 6.2 shall be provided in the hot work area.

SECTION 5.18 INDUSTRIAL OVENS FOR BAKING AND DRYING PROCESSES

Subsection 5.18.1. Application

Application

5.18.1.1. This Section applies to industrial baking and drying ovens which during operation contain flammable vapours given off by the products being baked or dried.

Subsection 5.18.2. Location

Prohibited location

5.18.2.1. Ovens shall not be located in any **storey** below **grade**.

Subsection 5.18.3. Construction

Oven materials

5.18.3.1. Industrial ovens shall be constructed of noncombustible materials with smooth interior surfaces to permit cleaning.

Limiting temperature on combustible construction

5.18.3.2. The roof and floor of ovens and heaters and associated ductwork shall have sufficient clearance or be insulated where necessary to prevent the temperature from exceeding 90°C at any combustible part of the **building** assembly.

Explosion vents

5.18.3.3. (1) Explosion vents shall be provided for ovens where fuel or vapour hazards are present.

(2) Explosion vents shall be designed in accordance with NFPA 68, “Standard on Explosion Protection by Deflagration Venting”.

(3) Existing explosion vents that provide a vent ratio of 0.2 m² of vent area for each cubic metre of oven volume are deemed to satisfy the vent ratio for the purposes of NFPA 68 in Sentence (1).

(4) Openings or access doors equipped with explosion release hardware shall be acceptable as explosion vents.

Duct and stack restrictions

5.18.3.4. (1) Ducts, stacks and associated insulation in systems for the removal of flammable vapours shall

- (a) be constructed of noncombustible materials,
- (b) not pass through **firewalls**, and
- (c) discharge outdoors not less than
 - (i) 1.5 m from unprotected **building** openings, and
 - (ii) 6 m from air intake openings.

Subsection 5.18.4. Ventilation

Oven ventilation

5.18.4.1. Ovens in which flammable vapours may be present or through which products of combustion are circulated shall be ventilated in accordance with NFPA 86, “Standard for Ovens and Furnaces”.

Fan interlocks

5.18.4.2. (1) In ovens where flammable vapours may be present, interlocks shall be provided to ensure that energy sources and ignition devices are de-activated when

- (a) the ventilating fans stop, or
- (b) the excess temperature controls are activated.

Continuous-process oven interlocks

5.18.4.3. (1) In continuous-process ovens where flammable vapours may be present, interlocks shall be provided to ensure

- (a) that ventilating fans are operating before conveyors can be started, and
- (b) that the conveyors are stopped when
 - (i) the ventilating fans stop, or
 - (ii) the excess temperature controls are activated.

Subsection 5.18.5. Maintenance

Cleaning of ovens and ductwork

5.18.5.1. (1) Ovens and associated ductwork shall be **inspected**, cleaned and maintained internally and externally at intervals sufficient to prevent the accumulation of combustible deposits.

(2) Access doors or panels shall be provided to permit **inspection**, cleaning and maintenance of ovens and associated ductwork.

(3) Fixed noncombustible ladders, steps or grab rails shall be provided to permit access to the doors or panels required in Sentence (2).

Subsection 5.18.6. Fire Protection

Portable extinguishers

5.18.6.1. Portable extinguishers shall be provided in conformance with Section 6.2.

Standpipe and hose systems

5.18.6.2. A standpipe and hose system shall be installed in conformance with the **Building Code** and equipped with spray nozzles so that all parts of an oven structure can be reached by a hose stream.

Fire access doors

5.18.6.3. Doors or other means of access shall be provided in ovens and associated ductwork so that portable extinguishers or hose streams may be used in all parts of the equipment.

Automatic fire protection

5.18.6.4. Ovens containing or processing sufficient combustible materials to sustain a fire shall be protected by an automatic sprinkler system or other fixed extinguishing systems.

PART 6

FIRE PROTECTION EQUIPMENT

TABLE OF CONTENTS

SECTION 6.1 GENERAL

Subsection 6.1.1. Application

SECTION 6.2 PORTABLE EXTINGUISHERS

Subsection 6.2.1. General
 Subsection 6.2.2. Classification
 Subsection 6.2.3. Selection Requirements
 Subsection 6.2.4. Installation Requirements
 Subsection 6.2.5. Grading of Hazards
 Subsection 6.2.6. Distribution
 Subsection 6.2.7. Inspection, Testing and Maintenance

SECTION 6.3 ALARM AND VOICE COMMUNICATION SYSTEMS FOR LIFE SAFETY

Subsection 6.3.1. General
 Subsection 6.3.2. Check, Inspect and Test
 Subsection 6.3.3. Smoke Alarms – Maintenance and Testing
 Subsection 6.3.4. Carbon Monoxide Alarms – Maintenance and Testing

SECTION 6.4 STANDPIPE AND HOSE SYSTEMS

Subsection 6.4.1. General
 Subsection 6.4.2. Maintenance and Inspection of Hose Stations and Equipment
 Subsection 6.4.3. Checking, Inspection and Testing

SECTION 6.5 SPRINKLER SYSTEMS

Subsection 6.5.1. General

Subsection 6.5.2. Sprinkler System Shutdowns
 Subsection 6.5.3. Checking
 Subsection 6.5.4. Inspection
 Subsection 6.5.5. Testing
 Subsection 6.5.6. Maintenance

SECTION 6.6 WATER SUPPLIES FOR FIRE PROTECTION

Subsection 6.6.1. General
 Subsection 6.6.2. Tanks
 Subsection 6.6.3. Fire Pumps and Reservoirs
 Subsection 6.6.4. Hydrants
 Subsection 6.6.5. Inspection of Hydrants
 Subsection 6.6.6. Uniform Marking of Hydrants

SECTION 6.7 EMERGENCY POWER SYSTEMS, UNIT EQUIPMENT FOR EMERGENCY LIGHTING AND EXIT SIGNS

Subsection 6.7.1. General

SECTION 6.8 SPECIAL FIRE SUPPRESSION SYSTEMS

Subsection 6.8.1. Inspection and Maintenance

SECTION 6.9 DECOMMISSIONING

Subsection 6.9.1. General

SECTION 6.10 INTEGRATED FIRE PROTECTION AND LIFE SAFETY SYSTEMS

Subsection 6.10.1. General

SECTION 6.1 GENERAL

Subsection 6.1.1. Application

Application

6.1.1.1. This Part applies to installation, **checking, inspection, testing**, maintenance and operation of fire protection equipment and life safety systems.

Exception

6.1.1.2. Section 6.2 does not apply to **dwelling units**.

SECTION 6.2 PORTABLE EXTINGUISHERS

Subsection 6.2.1. General

6.2.1.1. **Listed** portable extinguishers shall be installed when replacing or adding new extinguishers.

Maintenance

6.2.1.2. Portable extinguishers shall be kept operable and fully charged.

Location

6.2.1.3. (1) Portable extinguishers shall be located so that they are easily seen and shall be accessible at all times, except as permitted in Sentences (2) and (3).

(2) A lockable, break-front glazed cabinet may be used for security purposes to store portable extinguishers and where portable extinguishers are located in a fire hose cabinet, an **approved** lockable, scored glass break-front cabinet may be used.

(3) In a **detention occupancy**, portable extinguishers are permitted to be located in secure areas, or in lockable cabinets provided

- (a) identical keys for all cabinets are located at all supervisory or security stations, or
- (b) electrical remote release devices that are designed to open upon power failure are provided for the cabinets.

6.2.1.4. Portable extinguishers shall be located in or adjacent to corridors or aisles that provide **access to exits**.

Signs

6.2.1.5. The location of portable extinguishers shall be prominently indicated by signs or markings in large **floor areas** and in locations where visual obstructions cannot be avoided.

Proximity to fire hazards

6.2.1.6. Portable extinguishers in proximity to a fire hazard shall be located so as to be accessible without exposing the operator to undue risk.

Corrosive atmosphere

6.2.1.7. Portable extinguishers that are subject to corrosion shall not be installed in a corrosive environment unless they are provided with appropriate corrosion protection.

Temperature range requirements

6.2.1.8. (1) Where a portable extinguisher is to be located in an area subject to temperatures outside the range 4°C to 49°C, it shall be

- (a) placed in an enclosure where the temperature is maintained within this range, or
- (b) of a type labelled for the temperatures to which it will be exposed.

Mounting brackets

6.2.1.9. When portable extinguishers are located on vehicles or in areas where they are subject to jarring or vibration, brackets designed to accommodate these effects shall be used.

Subsection 6.2.2. Classification

Rating of portable extinguishers

6.2.2.1. Portable extinguishers shall be rated and identified in conformance with CAN/ULC-S508, “Standard for the Rating and Fire Testing of Fire Extinguishers”.

Subsection 6.2.3. Selection Requirements

Multiple ratings

6.2.3.1. Where portable extinguishers have been **tested** and are rated as being acceptable for fighting more than one class of fire, each class of fire for which they are acceptable shall be designated on each extinguisher.

Subsection 6.2.4. Installation Requirements

Where portable extinguishers required

6.2.4.1. Portable extinguishers shall be provided to protect every **building**, each hazardous **occupancy** inside the **building** and each hazardous process or operation located outside.

Distance above floor

6.2.4.2. Portable extinguishers with a gross weight greater than 18 kg shall be installed so that the top of the extinguisher is not more than 1.1 m above the floor when the extinguisher is not equipped with wheels.

6.2.4.3. Portable extinguishers having a gross weight of 18 kg or less shall be installed so that the top of the extinguisher is not more than 1.5 m above the floor.

Operating instructions

6.2.4.4. The operating instructions of portable extinguishers shall face outward when the extinguishers are located in cabinets, in wall recesses or on shelves.

Subsection 6.2.5. Grading of Hazards

Light hazard occupancy

6.2.5.1. Where the quantity of combustible material present is such that fires of small size may be expected, such as in offices, schoolrooms, churches, assembly halls and telephone exchanges, the **occupancy** shall be graded as light hazard.

Ordinary hazard occupancy

6.2.5.2. Where the quantity of combustible material present is such that fires of moderate size may be expected, such as in **mercantile occupancies**, display rooms, auto showrooms, parking garages, light manufacturing, warehouses not classified as extra hazard and school shop areas, the **occupancy** shall be graded as ordinary hazard.

Extra hazard occupancy

6.2.5.3. Where the quantity of combustible material present is such that fires of severe magnitude may be expected, such as in woodworking, auto repair, aircraft servicing, mercantile storage areas, warehouses with high-piled combustibles and processes incorporating **flammable liquids** or **combustible liquids**, the **occupancy** shall be graded as extra hazard.

Subsection 6.2.6. Distribution

6.2.6.1. (1) Portable extinguishers required in Article 6.2.4.1. shall be located in conformance with this Subsection.

(2) Despite Sentence (1), in an unoccupied warehouse equipped with a fixed fire protection system, provision shall be made for portable extinguishers to be available for use by responding personnel.

(3) The location and number of portable extinguishers required under Sentence (2) shall be **approved**.

Building protection

6.2.6.2. Portable extinguishers that are provided to protect a **building** shall be suitable for fighting **Class A fires** and be available for use at all times.

Occupancy protection

6.2.6.3. Portable extinguishers that are provided to protect a hazardous **occupancy** shall be those required in this Section for fighting **Class A fires**, **Class B fires**, **Class C fires**, **Class D fires** or **Class K fires**.

Extinguishers for Class A fires

6.2.6.4. Except as required in Article 6.2.6.5., portable extinguishers for **Class A fires** shall be provided in conformance with Table 6.2.6.A.

6.2.6.5. Where a **floor area** is less than that shown in Table 6.2.6.A., one portable extinguisher not less than the minimum size permitted shall be provided.

TABLE 6.2.6.A.

Forming Part of Article 6.2.6.4.

Basic Minimum Extinguisher Rating for Area Specified	Maximum Travel Distance to Extinguisher, m	Maximum Area to be Protected per Extinguisher for Class A Fires , m ²		
		Light Hazard Occupancy	Ordinary Hazard Occupancy	Extra Hazard Occupancy
2A	25	600	300	Not Acceptable
3A	25	900	400	300
4A	25	1100	600	400

TABLE 6.2.6.A.
(continued)

Basic Minimum Extinguisher Rating for Area Specified	Maximum Travel Distance to Extinguisher, m	Maximum Area to be Protected per Extinguisher for Class A Fires , m ²		
6A	25	1100	900	600
10A	25	1100	1100	900
20A	25	1100	1100	1100
40A	25	1100	1100	1100

Hose stations in lieu of extinguishers

6.2.6.6. Up to one half of the number of portable extinguishers required in Table 6.2.6.A. may be replaced by hose stations.

Extinguishers for Class B fires

6.2.6.7. Except as required by Article 6.2.6.9., portable extinguishers for **Class B fires** shall be provided as required in Table 6.2.6.B.

6.2.6.8. (1) Where up to three portable extinguishers rated for **Class B fires** are used to satisfy the extinguisher rating specified in Table 6.2.6.B., the sum of the basic extinguisher ratings shall satisfy the requirements in Table 6.2.6.B.

(2) No more than three portable extinguishers shall be used to satisfy the requirements of Table 6.2.6.B.

TABLE 6.2.6.B.
Forming Part of Article 6.2.6.7.

Grade of Hazard	Basic Minimum Extinguisher Rating per Unit	Maximum Travel Distance to Extinguishers, m
Light	5B	9
	10B	15
Ordinary	10B	9
	20B	15
Extra	20B	9
	40B	15

Extinguishers for flammable and combustible liquids

6.2.6.9. (1) Portable extinguishers for **Class B fires** shall be provided for **flammable liquid** and **combustible liquid** hazards when **flammable liquids** or **combustible liquids** are stored in open containers to a depth greater than 6 mm.

(2) The portable extinguishers shall provide at least one numerical unit of extinguishing potential for **Class B fires** per 0.1 m² of surface area of the largest open container within the area, but in no case shall the extinguisher rating be less than that required by Table 6.2.6.B.

(3) The distance travelled to reach a portable extinguisher required by Sentence (1) shall not exceed 15 m.

6.2.6.10. (1) Where up to three foam-type portable extinguishers rated for **Class B fires** are used to satisfy the requirements of Article 6.2.6.9., the sum of the basic extinguisher ratings shall satisfy the requirements in Table 6.2.6.B.

- (2) No more than three portable extinguishers shall be used to satisfy the requirements of Table 6.2.6.B.

Supplementary protection

6.2.6.11. Portable extinguishers shall supplement fixed fire protection in Part 5 in accordance with Article 6.2.6.9. where a **flammable liquid** or **combustible liquid** is stored in an open container and where the liquid surface area exceeds 0.4 m².

Extinguishers for commercial cooking equipment

6.2.6.12. (1) Portable extinguishers suitable for **Class K fires** shall be provided to protect cooking operations.

(2) Sentence (1) does not apply to cooking operations protected by wet chemical or dry chemical extinguishers not **listed** for **Class K fires** that met the requirements of this Code on December 31, 2014, as it read on that day, unless the extinguishers

- (a) become due for an internal examination or hydrostatic **test** under Subsection 6.2.7.,
- (b) require recharging due to use, or
- (c) become damaged.

Extinguishers for Class C fires

6.2.6.13. Portable extinguishers suitable for **Class C fires** shall be provided in or near **service rooms** containing electrical equipment.

Distribution

6.2.6.14. Distribution of portable extinguishers for **Class C fires** shall conform to the applicable provisions for the distribution of extinguishers for **Class A fires** or **Class B fires** in the vicinity of the electrical equipment.

6.2.6.15. Reference shall be made to Parts 2, 3, 4 and 5 for requirements of portable extinguishers for **flammable liquids** and **combustible liquids**, hazardous materials, processes and operations.

Extinguishers for combustible metal fires

6.2.6.16. (1) For fires involving combustible metals, extinguishers or extinguishing agents with **Class D fire** ratings suitable for the combustible metal shall be provided.

- (2) Extinguishing equipment shall be located not more than 25 m from the **Class D fire** hazard.

Subsection 6.2.7. Inspection, Testing and Maintenance

6.2.7.1. (1) Maintenance and **testing** of portable extinguishers shall be in conformance with NFPA 10, “Standard for Portable Fire Extinguishers”.

(2) Portable extinguishers that are **inspected** in conformance with NFPA 10, “Standard for Portable Fire Extinguishers”, are deemed to satisfy the **inspection** requirements of this Subsection.

Examination

- 6.2.7.2. Portable extinguishers shall be **inspected** monthly.

Defective extinguishers

6.2.7.3. Portable extinguishers having defects shall be repaired and, if necessary, recharged to ensure the extinguishers will operate effectively and safely.

Tags

6.2.7.4. (1) Each portable extinguisher shall have a tag securely attached to it showing the maintenance or recharge date, the servicing agency and the signature of the person who performed the service.

(2) Sentence (1) does not apply where other **approved** records are maintained that show the maintenance or recharge date, the servicing agency and the signature of the person who performed the service.

Maintenance records

6.2.7.5. A permanent record containing the maintenance date, the examiner's name and a description of any maintenance work or hydrostatic **testing** carried out shall be prepared and maintained for each portable extinguisher.

Maintenance after use

6.2.7.6. Portable extinguishers shall be replaced or recharged after use in conformance with instructions given on the extinguisher nameplate.

6.2.7.7. Extinguisher shells, cartridges or cylinders that show leakage or permanent distortion in excess of specified limits or that rupture shall be removed from service.

6.2.7.8. Hydrostatic pressure **tests** shall be conducted at the original **test** pressure as stated on the nameplate.

Test labels

6.2.7.9. (1) Where a portable extinguisher is **tested**, a label shall be fixed to the extinguisher after **testing** that indicates the month and year the hydrostatic pressure **test** was performed, the **test** pressure used and the name of the person or agency performing the **test**.

(2) Sentence (1) does not apply where a permanent record of the **test** is kept and is available to the **fire** department.

SECTION 6.3 ALARM AND VOICE COMMUNICATION SYSTEMS FOR LIFE SAFETY

Subsection 6.3.1. General

Access

6.3.1.1. Access to fire alarm and voice communication system components requiring **inspection** or servicing shall be kept unobstructed.

Monitoring

6.3.1.2. (1) Where the **Building Code** or this Code require a fire alarm system to be monitored to transmit a signal to the **fire department**, the building **owner** shall ensure the continuation of the monitoring.

(2) Where the fire alarm system monitoring referred to in Sentence (1) is provided by a central station, the **building owner** shall obtain written documentation from the central station operator that the monitoring service complies with

- (a) NFPA 71, "Standard for the Installation, Maintenance, and Use of Signaling Systems for Central Station Service", or
- (b) CAN/ULC-S561, "Standard for Installation and Services for Fire Signal Receiving Centres and Systems".

(3) Where a fire alarm system is monitored by a central station to meet the requirements of the **Building Code** or this Code, the operator of the central station shall provide, upon request by the **owner** or **Chief Fire Official**, a document attesting that the monitoring service is in compliance with one of the standards identified in Sentence (2).

(4) Despite Article 1.2.1.1. of Division A, where the **Building Code** or this Code requires a fire alarm system to be monitored and the monitoring is provided by a central station, the operator of the central station shall be responsible for maintaining the monitoring service and associated monitoring equipment in accordance with one of the standards identified in Sentence (2).

(5) Where the fire alarm system is monitored by a proprietary signalling system, such system shall be maintained in accordance with Chapter 4 of NFPA 72, “National Fire Alarm and Signaling Code”.

6.3.1.3. (1) If a fire alarm or voice communication system or any part thereof is shut down

- (a) the **fire department** and **building** occupants shall be notified in accordance with Article 1.1.1.1., and
- (b) the **supervisory staff** shall be notified.

6.3.1.4. Fire alarm and voice communication systems shall be maintained in operating condition.

Signal silencing

6.3.1.5. (1) Once activated, a fire alarm system shall not be manually silenced unless it has been confirmed by **supervisory staff**, in accordance with **approved** procedures as detailed in the fire safety plan, that no fire emergency exists.

(2) Sentence (1) does not apply where a silencing switch is part of an **approved** integrated voice communication system and signal silencing takes place to allow fire emergency instructions to be heard.

Disconnect switches

6.3.1.6. Disconnect switches for power supplies which serve only fire alarm systems or interconnected **smoke alarms** shall be in a locked secure area or otherwise secured in an **approved** manner.

Relocating manual pull stations

6.3.1.7. (1) Where **approved**, manual pull stations for a fire alarm system in a **building** may be relocated if there is a high incidence of false alarms in the **building**.

(2) Where the manual pull stations are relocated, alternate **approved** measures shall be used to maintain the level of life safety.

Repairs and alterations to fire alarm systems

6.3.1.8. Repair, replacement and alterations of fire alarm system components shall be in accordance with CAN/ULC-S524, “Standard for the Installation of Fire Alarm Systems”.

Subsection 6.3.2. Check, Inspect and Test

Obligation to ensure compliance

6.3.2.1. (1) The **owner** shall ensure that any person performing the annual **tests** or annual **inspections** required by this Subsection for fire alarm systems or performing the repairs, replacements or alterations of fire alarm systems referred to in Article 6.3.1.8. is in compliance with the requirements of

- (a) Clause 1.2.1.2.(1)(a) of Division C, or
- (b) Sentence 1.2.1.2.(2) of Division C.

(2) The **owner** shall ensure that any person performing the annual **tests** or annual **inspections** required by this Subsection for interconnected **smoke alarm** systems or performing the **tests** or maintenance for interconnected **smoke alarm** systems referred to in Article 6.3.2.6. is in compliance with the requirements of

- (a) Clause 1.2.2.2.(1)(a) of Division C, or
- (b) Sentence 1.2.2.2.(2) of Division C.

Fire alarm systems

6.3.2.2. (1) Except as provided in Sentence (2), a fire alarm system, with or without voice communication capability, shall be **inspected** and **tested** in conformance with CAN/ULC-S536, “Standard for Inspection and Testing of Fire Alarm Systems”.

(2) Despite Clause 14.4.1.6. of CAN/ULC-S536, “Standard for Inspection and Testing of Fire Alarm Systems”, a UL **listed smoke detector** sensitivity instrument may be used to conduct annual sensitivity **testing** of **smoke detectors**.

(3) A description of the fire alarm system as required in CAN/ULC-S536, “Standard for Inspection and Testing of Fire Alarm Systems”, shall be kept current and maintained in the **building** at an **approved** location.

(4) A record of each device, component and circuit of the fire alarm system that is **inspected** and **tested** in accordance with Sentence (1) shall

- (a) indicate whether the device, component or circuit is in proper working order, and
- (b) be kept in accordance with Subsection 1.1.2.

(5) Where a fire alarm system is monitored to transmit a signal to the **fire department**, the **owner** shall record whether all signals from the **tests** conducted in Sentence (1), or other events, are received by the monitoring station, and records shall be kept in accordance with Subsection 1.1.2.

Central alarm and control facilities

6.3.2.3. The central alarm and control facility shall be **checked** daily for indication of trouble in the system.

Voice communication systems

6.3.2.4. Voice communication systems that are integrated with a fire alarm system shall be **tested** in conformance with CAN/ULC-S536, “Standard for Inspection and Testing of Fire Alarm Systems”.

6.3.2.5. (1) Voice communication systems that are not integrated with a fire alarm system shall be **tested** monthly in compliance with Sentences (2) and (3).

(2) Loudspeakers described in Sentence (1) shall be **tested** monthly as an all-call signal to ensure they function as intended.

(3) Communication from at least one remote firefighter emergency telephone location to the control unit shall be **tested** monthly on a rotational basis so that communication from all remote firefighter emergency telephone locations are **tested** at least once per year.

(4) Voice communication systems are not required to be **tested** in conformance with Sentences (1) and (2) where the systems are regularly used as part of a paging system.

Interconnected smoke alarms

6.3.2.6. (1) This Article applies to interconnected **smoke alarm** systems in all **residential occupancies** and **care occupancies**, except in individual **dwelling units** and in **buildings** regulated by Section 9.8.

(2) Interconnected **smoke alarms** shall be **tested** and maintained in operating condition in conformance with CAN/ULC-S552, “Standard for the Maintenance and Testing of Smoke Alarms”, and as required by this Article.

(3) The power supply shall be **checked** weekly.

(4) The operability of the interconnected system shall be confirmed monthly, by **testing** at least one **smoke alarm** using its **test** function, on a rotational basis.

(5) Where installed, each manual pull station shall be **tested** to ensure activation of the interconnected **smoke alarms** on an annual basis.

(6) Written records shall be kept of weekly **checks** of the power supply for at least six months after they are made, and be available upon request to the **Chief Fire Official**.

Residential fire warning systems

6.3.2.7. (1) **Smoke detectors** forming part of a residential fire warning system that are used in lieu of **smoke alarms** in conformance with the provisions of Sentence 2.13.2.1.(4), shall be maintained, **tested** and replaced in accordance with the manufacturer's published instructions, and in accordance with

- (a) Articles 6.3.3.2. to 6.3.3.6., and
- (b) Sentences 6.3.3.8.(1) to (4) and (6).

(2) For the purposes of compliance with Clauses (1)(a) and (1)(b), **smoke detectors** forming part of a residential fire warning system shall be treated as **smoke alarms**.

Subsection 6.3.3. Smoke Alarms – Maintenance and Testing

Application

6.3.3.1. (1) This Subsection applies to **smoke alarms** in

- (a) **suites of residential occupancy**,
- (b) **guest suites**,
- (c) sleeping rooms not within a **dwelling unit**, and
- (d) other **occupancies** in which **smoke alarms** are required by the **Building Code**.

Landlord is responsible

6.3.3.2. (1) Despite the definition of **owner** in Article 1.4.1.2. of Division A, in the case of a rental **suite**, only the landlord shall be considered to be the **owner** for the purpose of applying Article 1.2.1.1. of Division A to this Subsection.

(2) In this Subsection,

“landlord” means

- (a) the person, firm or corporation that owns the rental unit, including an agent acting on their behalf for purposes of carrying out duties under this Subsection, and
- (b) does not include the tenant.

Duty to maintain in operating condition

6.3.3.3. (1) **Smoke alarms** shall be maintained in operating condition.

(2) Primary and secondary power supplies that serve **smoke alarms** shall be maintained in operating condition.

(3) If the **Building Code** requires a visual signalling component that is integral with or connected to a **smoke alarm**, the visual signalling component shall be maintained in operating condition.

Maintenance instructions to be given to tenant

6.3.3.4. The landlord of each rental **suite** shall give the tenant a copy of the **smoke alarm** manufacturer's maintenance instructions or **approved** alternative maintenance instructions.

Tenant to notify landlord

- 6.3.3.5. (1) A tenant of a rental **suite** shall notify the landlord as soon as the tenant becomes aware that
- (a) a **smoke alarm** in the unit is disconnected,
 - (b) a **smoke alarm** in the unit is not operating, or
 - (c) the operation of a **smoke alarm** in the unit is impaired.

Disabling prohibited

- 6.3.3.6. No person shall disable a **smoke alarm**.

Replacement

- 6.3.3.7. (1) A **smoke alarm** shall be replaced within the time frame indicated in the manufacturer's instructions.
- (2) When a **smoke alarm** is replaced
- (a) in the case of a **suite** subject to Part 9, the replacement shall not provide a lower level or type of protection than that required by Part 9,
 - (b) in the case of a **suite** not subject to Part 9 that was constructed on or after April 6, 1998, the replacement shall not provide a lower level or type of protection than that required by the **Building Code** in effect at the time of construction of the **suite**, and
 - (c) in the case of a **suite** not subject to Part 9 that was constructed before April 6, 1998, the replacement shall not provide a lower level or type of protection than that required by Article 2.13.2.1.
- (3) The **Chief Fire Official** may **approve** an alternative to a requirement of Sentence (2) if, in the opinion of the **Chief Fire Official**, the alternative provides fire safety protection equivalent to or greater than the fire safety protection that would be provided by the requirement.

Testing

- 6.3.3.8. (1) This Article applies to rental **suites**.
- (2) The landlord shall **test smoke alarms** annually and after every change in tenancy.
- (3) The landlord shall **test** battery-operated **smoke alarms** after the battery is replaced.
- (4) The landlord shall **test smoke alarms** that are connected to an electrical circuit after any change is made to the electrical circuit.
- (5) For the purposes of Sentences (2), (3) and (4), **smoke alarms** shall be **tested** by activating the **smoke alarm** test feature.
- (6) If the **Building Code** requires a visual signalling component that is integral with or connected to a **smoke alarm**, the landlord shall ensure that any **test** of the **smoke alarm** required by Sentences (2) to (4) activates the visible signalling component.

Subsection 6.3.4. Carbon Monoxide Alarms – Maintenance and Testing

Application

- 6.3.4.1. (1) This Subsection applies to carbon monoxide alarms in **buildings** containing a **residential occupancy** or a **care occupancy**.
- (2) For greater certainty, the term residential occupancy referenced in this Subsection includes **retirement homes**.

Landlord is responsible

6.3.4.2. (1) Despite the definition of **owner** in Article 1.4.1.2. of Division A, in the case of a rental **suite** of **residential occupancy** or **care occupancy**, only the landlord shall be considered to be the **owner** for the purpose of applying Article 1.2.1.1. of Division A to this Subsection.

(2) In this Subsection,

“landlord” means

- (a) the person, firm or corporation that owns the rental unit, including an agent acting on their behalf for purposes of carrying out duties under this Subsection, and
- (b) does not include the tenant.

Duty to maintain in operating condition

6.3.4.3. (1) Carbon monoxide alarms shall be maintained in operating condition.

(2) Primary and secondary power supplies that serve carbon monoxide alarms shall be maintained in operating condition.

Maintenance instructions to be given to tenant

6.3.4.4. The landlord of each rental **suite** of **residential occupancy** shall give the tenant a copy of the carbon monoxide alarm manufacturer’s maintenance instructions or **approved** alternative maintenance instructions.

Tenant to notify landlord

6.3.4.5. (1) A tenant of a rental **suite** of **residential occupancy** shall notify the landlord as soon as the tenant becomes aware that

- (a) a carbon monoxide alarm in the unit is disconnected,
- (b) a carbon monoxide alarm in the unit is not operating, or
- (c) the operation of a carbon monoxide alarm in the unit is impaired.

Disabling prohibited

6.3.4.6. No person shall disable a carbon monoxide alarm.

Replacement in certain buildings

6.3.4.7. (1) This Article applies to every **building** that contains a **residential occupancy** or a **care occupancy** where

- (a) the **building** contains
 - (i) a fuel-burning **appliance**,
 - (ii) a fireplace, or
 - (iii) a **storage garage**, or
- (b) the **residential occupancy** or **care occupancy** is served by a forced-air fuel-burning **appliance** not contained within the **building**.

(2) RESERVED

(3) A carbon monoxide alarm shall be replaced within the time frame indicated in the manufacturer’s instructions.

(4) Except as provided in Sentence (5), when a carbon monoxide alarm is replaced, the replacement carbon monoxide alarm

- (a) shall not provide a lower level or type of carbon monoxide protection than that required by the **Building Code** as it read on the day the **building** or part of the **building** was constructed, and

- (b) shall comply with CSA-6.19, “Residential Carbon Monoxide Alarming Devices” or UL 2034, “Single and Multiple Station Carbon Monoxide Alarms”.

(5) When a carbon monoxide alarm that is required to be installed by Subsection 2.16.2. is replaced, the replacement carbon monoxide alarm shall conform to Article 2.16.2.1.

(6) The **Chief Fire Official** may **approve** an alternative to a requirement of Sentence (4), or (5) if, in the opinion of the **Chief Fire Official**, the alternative provides life safety protection equivalent to or greater than the life safety protection that would be provided by the requirement.

Testing

6.3.4.8. (1) This Article applies to rental **suites of residential occupancy** and to rental **suites of care occupancies**.

(2) The landlord of a rental suite of residential occupancy or care occupancy shall

- (a) **test** carbon monoxide alarms annually and after every change in tenancy or after every change of residents,
- (b) **test** battery-operated carbon monoxide alarms after the battery is replaced, and
- (c) **test** carbon monoxide alarms that are connected to an electrical circuit after any change is made to the electrical circuit.

(3) For the purposes of Clauses (2)(a), (b) and (c), carbon monoxide alarms shall be **tested** by activating the carbon monoxide alarm test feature.

SECTION 6.4 STANDPIPE AND HOSE SYSTEMS

Subsection 6.4.1. General

6.4.1.1. During alteration of a **building** required to have a standpipe and hose system, the system shall be installed or dismantled progressively so as to provide protection to all **floor areas**.

6.4.1.2. Standpipe and hose systems shall be maintained in operating condition.

Fire department connections

6.4.1.3. (1) Except when in use or being **inspected** in accordance with Article 6.4.3.7., **fire department** connections shall be equipped with plugs or caps that are secured wrench-tight.

(2) If plugs or caps are missing, the **fire department** connections shall be examined for obstructions, back-flushed when conditions warrant and the plugs or caps replaced.

Out of service requirements

6.4.1.4. (1) If a standpipe system or any part thereof is shut down

- (a) the **fire department** and **building** occupants shall be notified in accordance with Article 1.1.1.1., and
- (b) the **supervisory staff** shall be notified.

Hotels

6.4.1.5. In **buildings** containing a **hotel**, a standpipe and hose system shall not be shut down, disconnected or otherwise impaired without notifying the **Chief Fire Official** in accordance with a schedule identified in the **approved** fire safety plan.

Inspection, testing and maintenance

6.4.1.6. Compliance with the **inspection, testing** and maintenance provisions of NFPA 25, “Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems”, for standpipe and hose systems is deemed to satisfy the requirements of Articles 6.4.2.1. to 6.4.2.5. and Subsection 6.4.3.

Subsection 6.4.2. Maintenance and Inspection of Hose Stations and Equipment

Hose stations

6.4.2.1. Hose stations shall be **inspected** monthly to ensure that the hose is in proper position and that all of the equipment is in place and in operable condition.

6.4.2.2. Standpipe and hose system equipment shall be used for fire protection only.

6.4.2.3. Standpipe hose stations shall be conspicuously identified and unobstructed.

Hose valves

6.4.2.4. Hose valves shall be **inspected** annually to ensure that they are tight so that there is no water leakage into the hose.

Hose

6.4.2.5. (1) Standpipe hose shall be unracked, unreeled or unrolled and **inspected** at least annually and after use, and any worn hose or gaskets in the couplings at the hose valves and at the nozzle replaced.

(2) If the hose is replaced on the rack, reel or storage area, it shall be reracked, reeled or rerolled so that any folds do not occur at the same position they were previously on the hose.

Standpipe identification

6.4.2.6. (1) Except as required in Sentence (2), each hose connection in a standpipe system shall be provided with a legible sign reading: “FIRE HOSE FOR USE BY TRAINED PERSONS ONLY”.

(2) Each hose connection in a dry standpipe system with no permanent water supply shall be provided with a legible weatherproof sign reading: “DRY STANDPIPE FOR FIRE DEPARTMENT USE ONLY”.

Hose cabinets

6.4.2.7. (1) If a fire hose station is located in a cabinet, an **approved** lockable, scored glass break-front cabinet may be used.

(2) Hose stations in a **major occupancy** consisting of **detention occupancy** may be located in secure areas, or in lockable cabinets where

(a) identical keys for all cabinets are located at all guard stations, or

(b) electrical remote release devices are provided and are connected to an emergency power supply.

Subsection 6.4.3. Checking, Inspection and Testing

Standpipe systems

6.4.3.1. (1) Standpipe systems that have been modified, extended or are being restored to service after a period of disuse exceeding one year shall be **tested** in conformance with Articles 6.4.3.2. to 6.4.3.5.

(2) Where standpipes are built in walls or **partitions**, the **tests** shall be made before the standpipes are concealed.

Hydrostatic test

- 6.4.3.2. (1) Standpipe system piping shall be hydrostatically **tested** for 2 hours at a pressure of not less than
- (a) 1400 kPa (gauge), or
 - (b) 350 kPa (gauge) in excess of the normal hydrostatic pressure when the normal hydrostatic pressure is in excess of 1050 kPa (gauge).

Fire department connections

6.4.3.3. Piping between the **fire department** connection and the check valve in the inlet pipe to the standpipe shall be hydrostatically **tested** in the same manner as the remainder of the system.

Underground mains

6.4.3.4. (1) Underground mains and connections shall be hydrostatically **tested** for 2 hours at a hydrostatic pressure of 350 kPa (gauge) in excess of the maximum hydrostatic pressure in service, but not less than 1400 kPa (gauge).

(2) Leakage during the **test** shall not exceed 2 L/h per 100 joints for pipe laid with rubber gasketed joints, and 30 mL/h per 25 mm of pipe diameter per joint for pipe laid with caulked lead or lead substitute joints.

Flow and pressure tests

6.4.3.5. Flow and pressure **tests** shall be conducted at the highest and most remote hose valve or hose connection to ensure that the water supply for the standpipe system is provided as originally designed.

Dry standpipes

6.4.3.6. (1) Standpipe system piping which normally remains dry shall be hydrostatically **tested** in accordance with Article 6.4.3.2. at intervals of not more than five years.

(2) Water supply pressure and system air pressure for automatic dry standpipe systems shall be **checked** weekly by using gauges to ensure that the system is maintained at the required operating pressure.

Fire department connections

6.4.3.7. (1) The dry portion of the **fire department** connection piping of a standpipe system shall be hydrostatically **tested** at a pressure of not less than 1050 kPa (gauge) for 2 hours at intervals of not more than five years where

- (a) the **fire department** connection piping has been in service for more than thirty years, or
- (b) the age of the **fire department** connection piping cannot be determined.

(2) Despite Sentence (1), if, on July 1, 2018, fire department connection piping has not been hydrostatically tested within the previous five years, the first test required by Sentence (1) shall be completed before January 1, 2019.

(3) **Fire department** connection piping shall be inspected annually with any plugs or caps removed to ensure that

- (a) the **fire department** connection is physically unobstructed and readily accessible,
- (b) the **fire department** connection identification sign is in place and visible,
- (c) the **fire department** connection is free of wear, rust or obstruction,
- (d) couplings or swivels are not damaged and rotate smoothly,
- (e) gaskets are in place and in good condition,
- (f) the check valve is not leaking,
- (g) the automatic drain valve is in place and operating properly, and
- (h) **fire department** connection clappers are in place and operating properly.

(4) The annual **inspection** referenced in Sentence (3) shall be recorded and kept in accordance with Subsection 1.1.2.

Hotels

6.4.3.8. In **buildings** containing a **hotel**, flow and pressure **tests** shall be conducted annually at the highest and most remote hose valve or hose connection to verify that the water supply for the standpipe system is provided as originally designed.

SECTION 6.5 SPRINKLER SYSTEMS

Subsection 6.5.1. General

Repair, replacement, alterations, inspection, testing and maintenance

6.5.1.1. (1) Repair, replacement and alterations of sprinkler system components shall be in accordance with NFPA 13, “Standard for the Installation of Sprinkler Systems”, NFPA 13D, “Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes” or NFPA 13R, “Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height”, as applicable.

(2) Compliance with the **inspection, testing** and maintenance provisions of NFPA 25, “Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems”, for sprinkler systems is deemed to satisfy the requirements of Subsections 6.5.4. to 6.5.6.

6.5.1.2. Sprinkler systems shall be maintained in operating condition.

Closing sprinkler control valves

- 6.5.1.3. (1) Sprinkler control valves shall not be closed in the event of a fire until the fire is
- (a) extinguished, or
 - (b) considered by the **fire department**, or by an industrial fire brigade established by the **owner** in consultation with the **fire department**, to be under control by other means.

Changes in equipment or occupancy

6.5.1.4. Changes in equipment or **occupancy** that might result in temperatures at sprinklers being more than 38°C or less than 4°C with wet pipe systems shall not be made without previously making provisions to alter the sprinkler system to prevent premature operation or freezing.

Obstructions

6.5.1.5. (1) No obstructions shall be placed so as to interfere with the effectiveness of water discharge from sprinklers.

(2) Sprinkler systems shall not be used to support anything that will interfere with effective sprinkler system performance.

6.5.1.6. (1) Where alterations or repairs are made to feed mains, cross mains, or risers in sprinkler systems, the systems shall be **tested** in conformance with Sentences (2) to (8).

(2) Except as permitted in Sentence (4), the sprinkler system shall be subjected to a hydrostatic pressure **test** of a minimum of 1400 kPa (gauge), or 350 kPa (gauge) in excess of the maximum static pressure to which the system may be subjected, for a period of 2 h without loss of pressure.

(3) For dry-pipe systems, the clapper of the differential type dry-pipe valve shall be held off its seat, and the ball drip in the intermediate chamber shall be replaced by a plug during the **test**.

(4) The **tests** described in Sentence (2) shall be performed when hydrostatic pressure **testing** can be performed without danger of freezing, and when there is danger of freezing, the sprinkler system shall be pressure **tested** with air at 350 kPa (gauge) for 2 h without loss of pressure.

(5) Sprinkler system water supply pressure shall be **tested** with the main drain valve fully open to ensure that there are no obstructions in the water supply piping to the sprinkler system.

(6) Drainage facilities shall be **tested** to ensure that the drains are capable of taking the full flow from the main drain pipe without overflowing.

(7) Dry-pipe valves shall be **tested** to ensure that they are in operating condition.

(8) Mechanical and electrical alarms shall be **tested** to ensure that they are in operating condition.

Testing of underground mains

6.5.1.7. (1) When alterations or additions are made to underground mains and lead-in connections of a sprinkler system, the mains and lead-in connections shall be **tested** by

- (a) flushing for sufficient time to remove foreign material at a minimum water flow as specified in Table 6.5.1.A., and
- (b) a 2 h hydrostatic pressure **test** of 350 kPa (gauge) in excess of the maximum static pressure, but not less than 1400 kPa (gauge) and leakage shall not exceed 2 L/h per 100 joints for pipe laid with rubber gasketed joints, and 30 mL/h per 25 mm of pipe diameter per joint for pipe laid with caulked lead or lead substitute joints.

TABLE 6.5.1.A.

Forming Part of Article 6.5.1.7.

Size of Pipe, mm	Minimum Flow, L/min
100	1500
150	3250
200	5800
250	9000
300	13000

(2) At seasons of the year that will not permit hydrostatic pressure **testing**, the procedure outlined in Sentence 6.5.1.6.(4) may be followed.

Records

6.5.1.8. (1) An **approved** record shall be kept of **inspections** of each system.

(2) The record required in Sentence (1) shall be available for examination by the **Chief Fire Official**.

Subsection 6.5.2. Sprinkler System Shutdowns

Notification

6.5.2.1. When any alterations, additions or repairs are to be made involving interruption to a sprinkler system or part thereof, the **Chief Fire Official** shall be notified.

Sprinkler control valves and water supplies

6.5.2.2. (1) Sprinkler control valves and sprinkler water supplies shall not be shut down, disconnected or otherwise impaired for more than 24 h without notifying the **Chief Fire Official**.

(2) In **buildings** containing a **hotel**, sprinkler control valves and sprinkler water supplies shall not be shut down, disconnected or otherwise impaired

- (a) for 24 h or less without notifying the **Chief Fire Official** in accordance with a schedule identified in the **approved** fire safety plan, or
- (b) for more than 24 h without notifying the **Chief Fire Official**.

Schedule of temporary shutdowns

6.5.2.3. Where it is required to temporarily shut down a sprinkler system or part thereof, the work shall be programmed by the contractor working on the system to enable the sprinkler system to be operational as quickly as possible in the circumstances.

Programmed repairs

- 6.5.2.4. (1) If a sprinkler system or any part thereof is shut down
 - (a) the **fire department** and **building** occupants shall be notified in accordance with Article 1.1.1.1., and
 - (b) the **supervisory staff** shall be notified.

Additional protection during shutdowns

6.5.2.5. Full sprinkler protection shall be restored or the provisions of Article 6.5.2.6. maintained when work on the system is discontinued.

Identification of closed valves

6.5.2.6. Closed sprinkler control valves and closed valves controlling fire protection water supplies for sprinkler systems shall be tagged or identified in an **approved** manner.

Subsection 6.5.3. Checking

Pipe hangers

6.5.3.1. Exposed sprinkler piping hangers shall be **checked** yearly to ensure that they are kept in good repair.

Pressure maintenance

6.5.3.2. Water supply pressure and system air or water pressure shall be **checked** weekly by using gauges to ensure that the system is maintained at the required operating pressure.

Protection against freezing

6.5.3.3. Dry-pipe valve rooms or enclosures in unheated **buildings** shall be **checked** as often as necessary when the outside temperature falls below 0°C to ensure that the system does not freeze.

Sprinkler heads

6.5.3.4. Sprinkler heads shall be **checked** at least once per year to ensure that they are free from damage, corrosion, grease, dust, paint or whitewash.

Subsection 6.5.4. Inspection

Winter damage

6.5.4.1. Auxiliary drains shall be **inspected** to prevent freezing.

Test flushing

6.5.4.2. Dry-pipe systems shall be **inspected** every 15 years for obstructions in the sprinkler piping and, if necessary, the entire system flushed of foreign material.

Priming water level

6.5.4.3. The priming water for dry-pipe systems shall be **inspected** at least every three months to ensure that the proper level above the dry-pipe valve is maintained.

Fire department connections

6.5.4.4. (1) Except when in use or being **inspected** in accordance with Sentence (2), **fire department** connections shall be equipped with plugs or caps that are secured wrench-tight.

(2) Plugs or caps shall be removed annually and the **fire department** connections **inspected** for wear, rust or obstruction and corrective action shall be taken as needed.

(3) If plugs or caps are missing, the **fire department** connections shall be examined for obstructions, back-flushed when conditions warrant and the plugs or caps replaced.

Sprinkler control valves

6.5.4.5. (1) Subject to Sentences (2) and (3), valves controlling sprinkler water supplies or alarms shall be sealed in the open position and **inspected** weekly.

(2) Valves which are locked open or valves which are electrically supervised shall be **inspected** monthly.

(3) After any alterations or repairs, valves shall be **inspected** to ensure they are in the fully open position and are sealed, locked or electrically supervised.

Subsection 6.5.5. Testing

Notification

6.5.5.1. Prior notification of water flow or other **tests** to be made to a sprinkler system shall be given to parties who could be affected by an alarm.

Alarm testing

6.5.5.2. (1) Except as provided in Article 6.5.5.7., the alarm on all sprinkler systems shall be **tested** monthly by flowing water through the **test** connection located at the sprinkler valve.

(2) An alarm line subject to freezing shall be cleared of all obstructions susceptible to freezing after the **test** specified in Sentence (1).

Water flow alarm tests

6.5.5.3. Water flow alarm **tests** using the most hydraulically remote **test** connection shall be performed annually on wet sprinkler systems.

Trip testing valves

6.5.5.4. (1) Dry-pipe valves shall be trip **tested** by means of the inspector's **test** valve in accordance with Sentences (2) and (3) to ensure that they operate satisfactorily and that the sprinkler alarms are in operating condition.

(2) Dry-pipe valves shall be trip **tested** annually.

(3) During the **test** referred to in Sentence (2), the control valve is not required to be in the fully open position.

(4) Dry-pipe valves shall be trip **tested** at least once every three years with the control valve fully open.

(5) The trip time for the **tests** described in Sentences (2) and (4) may exceed the acceptance trip time by not more than 10%.

Water supply

6.5.5.5. Sprinkler system water supply pressure shall be **tested** annually with the main drain valve fully open to ensure that there are no obstructions or deterioration of the main water supply.

6.5.5.6. The **test** prescribed in Article 6.5.5.5. shall be conducted after any sprinkler system control valve has been operated.

Electrical supervision signal testing

6.5.5.7. (1) If electrical supervision is provided for a sprinkler system, it shall be **tested** by operating the supervisory signal devices in conformance with Sentences (2) and (3).

(2) Transmitters and water-flow-actuated devices shall be **tested** every two months.

(3) Valve supervisory switches, tank water level devices, **building** and tank water temperature supervisory devices and other sprinkler system supervisory devices shall be **tested** at least every six months.

Subsection 6.5.6. Maintenance***Sprinkler guards***

6.5.6.1. Sprinklers shall be protected by sprinkler guards where there is the possibility of mechanical damage.

Valve access

6.5.6.2. Sprinkler control valves shall be accessible and maintained in operable condition at all times.

Valve pits

6.5.6.3. Pits containing sprinkler control valves shall be kept free of water and protected against freezing.

Precautions against freezing

6.5.6.4. (1) Except as permitted in Sentence (2), sections of sprinkler systems subject to freezing shall be converted to a dry-pipe or antifreeze system with a separate control valve for that part of the system.

(2) Alternative methods to prevent freezing of sprinkler piping may be used where **approved**.

Spare sprinkler heads

6.5.6.5. (1) Where sprinkler systems are installed, a supply of spare sprinkler heads and equipment shall be maintained in conformance with Sentences (2) to (5).

(2) Spare sprinkler heads shall be kept in a cabinet where the temperature does not exceed 38°C.

(3) The minimum stock of spare sprinkler heads to be kept on hand shall be

- (a) 6 sprinkler heads for installations containing not more than 300 sprinklers,
- (b) 12 sprinkler heads for installations containing from 301 to 1000 sprinklers, and
- (c) 24 sprinkler heads for installations containing more than 1000 sprinklers.

(4) Spare sprinkler heads shall correspond to the types and temperature ratings of the sprinklers installed on the system.

(5) A wrench suitable for replacing sprinkler heads shall be kept in the cabinet where the spare sprinkler heads are stored.

Protection for combustible sprinkler piping

6.5.6.6. Materials installed to protect combustible sprinkler piping, as required by the **Building Code** current at the time of installation, shall be maintained in accordance with the provisions of the same edition of the **Building Code** used for their installation.

SECTION 6.6 WATER SUPPLIES FOR FIRE PROTECTION**Subsection 6.6.1. General**

6.6.1.1. Private and public water supplies for fire protection installations shall be maintained to provide the required flow under fire conditions.

Valve inspections

6.6.1.2. (1) Except as permitted in Sentences (2) and (3), valves controlling water supplies used exclusively for fire protection systems or combined domestic water supplies and fire protection systems shall be sealed in the open position and **inspected** weekly.

(2) Valves which are locked open or valves which are electrically supervised shall be **inspected** monthly.

(3) After any alterations or repairs, an **inspection** shall be made to ensure valves are returned to the fully open position and are sealed, locked or electrically supervised.

Ice accumulations

6.6.1.3. Water supply systems used for fire protection shall be kept free of ice accumulations that may interfere with flow.

Antifreeze pumping systems

6.6.1.4. Where antifreeze solutions are used to maintain pumping systems operable under freezing conditions, the specific gravity shall be such that the solution will remain unfrozen at a temperature of 8°C below the expected minimum temperature of the surrounding atmosphere.

Inspection, testing and maintenance

6.6.1.5. (1) Compliance with the **inspection, testing** and maintenance provisions of NFPA 25, “Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems”, for tanks is deemed to satisfy the requirements of Subsection 6.6.2.

(2) Compliance with the **inspection, testing** and maintenance provisions of NFPA 25, “Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems”, for fire pumps is deemed to satisfy the requirements of Subsection 6.6.3.

(3) Compliance with the **inspection, testing** and maintenance provisions of NFPA 25, “Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems”, for hydrants is deemed to satisfy the requirements of Subsection 6.6.5.

Subsection 6.6.2. Tanks***Tank inspections***

6.6.2.1. An annual **inspection** shall be made of tanks for fire protection, tank supporting structures and water supply systems, including piping, control valves, check valves, heating systems, mercury gauges and expansion joints, to ensure that they are in operating condition.

Tank heating equipment

6.6.2.2. Tank heating equipment and accessories shall be **checked** daily during freezing weather to ensure that they are in operating condition and that heater valves are open.

Water temperature checks

6.6.2.3. A daily **check** of the temperature of the water contained in tanks shall be carried out during freezing weather to ensure that it does not fall below the freezing temperature.

Tank enclosure temperature checks

6.6.2.4. A daily **check** of the temperature of the tank enclosure for tanks in **buildings** shall be carried out during freezing weather to ensure that the temperature of the tank enclosure does not fall below 0°C.

Check for corrosion

6.6.2.5. Steel and iron work, including the inside and outside of steel tanks and hoops and grillages for wooden tanks, shall be **checked** for corrosion at intervals not exceeding two years and scraped and repainted as required.

Inspection for sediment

6.6.2.6. (1) Tanks, other than tanks supplied by a potable water supply, shall be **inspected** for accumulations of sediment at least every two years and cleaned as required.

(2) Tanks supplied by a potable water supply shall be **inspected** every five years and scraped and repainted as required.

Inspection of cathodic protection

6.6.2.7. Where cathodic protection equipment is installed to prevent corrosion of steel tanks, the equipment shall be **inspected** annually.

Water level in gravity tanks

6.6.2.8. The water level in gravity tanks shall be **inspected** monthly.

Gravity tanks

6.6.2.9. Gravity tanks shall be **inspected** annually to ensure that the tank roof is tight and in good repair, that hatches or doors are kept closed and properly secured and that the frost-proof casing of the tank riser makes a tight joint with the bottom of the tank.

6.6.2.10. The space between overflow pipes and the tops of gravity tanks, the valve pits at the bottoms of the risers and the entire area around the bases of the columns of tanks shall be kept free of rubbish and waste materials.

6.6.2.11. Gravity tank expansion joints shall be repacked and adjusted if binding or leaks develop.

Pressure tanks

6.6.2.12. (1) Pressure tanks shall be **checked** weekly during which the water level shall be observed and the air pressure shall be read.

(2) Corrective action shall be taken immediately if the observed water level or air pressure is outside the designed operating range for the tank.

6.6.2.13. Relief valves on the air and water supply lines of pressure tanks shall be **inspected** weekly.

Subsection 6.6.3. Fire Pumps and Reservoirs

Fire pump reservoirs

6.6.3.1. The water level in the fire pump reservoir shall be **checked** weekly.

Pump room temperature

6.6.3.2. The temperature of pump rooms shall be **checked** daily during freezing weather.

Inspection of fire pumps

6.6.3.3. (1) Fire pumps shall be operated at least once per week at rated speed.

(2) The fire pump discharge pressure, suction pressure, lubricating oil level, operative condition of relief valves, priming water level and general operating conditions shall be **inspected** during the weekly operation of fire pumps.

Internal combustion engine inspection

6.6.3.4. (1) Internal combustion engine fire pumps shall be operated once a week for a sufficient time to bring the engine up to normal operating temperature.

(2) The storage batteries, lubrication systems, oil and fuel supplies shall be **inspected** once a week.

Fire pump flow tests

6.6.3.5. Fire pumps shall be **tested** annually at full rated capacity to ensure that they are capable of delivering the rated flow.

Hotels

6.6.3.6. In **buildings** containing a **hotel**, the intervals referred to in Articles 6.6.3.3. and 6.6.3.4. are permitted to be once per month.

Subsection 6.6.4. Hydrants

Hydrants

6.6.4.1. Municipal and private hydrants shall be maintained in operating condition.

6.6.4.2. Hydrants shall be maintained free of snow and ice accumulations.

6.6.4.3. Hydrants shall be readily available and unobstructed for use at all times.

Subsection 6.6.5. Inspection of Hydrants

6.6.5.1. Hydrants shall be **inspected** annually and after each use in accordance with Articles 6.6.5.2. to 6.6.5.5.

6.6.5.2. (1) Except when in use or being **inspected** in accordance with Sentence (2), hydrants shall be equipped with port caps that are secured wrench-tight.

(2) The port caps shall be removed and the connections **inspected** for wear, rust or obstructions that in any way hamper easy removal and corrective action shall be taken as needed.

(3) If the caps are missing, the hydrant shall be examined for obstructions or accumulated refuse and flushed in accordance with Article 6.6.5.7. and the port caps shall be re-installed.

6.6.5.3. The hydrant barrel shall be **inspected** to ensure that no water has accumulated within the barrel when the main valve is in the closed position.

6.6.5.4. Where the hydrant barrel is found to contain water under Article 6.6.5.3., the drain valve shall be **inspected** for operation.

6.6.5.5. If the hydrant barrel is found to contain water because of poor drainage that is impractical to correct, **approved** measures shall be taken to prevent freezing during winter conditions.

Hydrant water flow

6.6.5.6. Hydrant water flow shall be **inspected** annually in accordance with Article 6.6.5.7.

6.6.5.7. The main valve of the hydrant shall be fully opened and the hydrant operated with one port open and the water flow **checked**.

6.6.5.8. A record of the hydrant operation as described in Article 6.6.5.7. shall be kept in conformance with Subsection 1.1.2.

Subsection 6.6.6. Uniform Marking of Hydrants

Hydrant marking

6.6.6.1. Hydrants shall be colour-coded in accordance with NFPA 291, “Recommended Practice for Fire Flow Testing and Marking of Hydrants”.

SECTION 6.7 EMERGENCY POWER SYSTEMS, UNIT EQUIPMENT FOR EMERGENCY LIGHTING AND EXIT SIGNS

Subsection 6.7.1. General

6.7.1.1. (1) Except as provided in Sentence (2), and Articles 6.7.1.2. to 6.7.1.5., emergency power systems shall be **inspected, tested** and maintained in conformance with CSA-C282, “Emergency Electrical Power Supply for Buildings”.

(2) An emergency electrical power supply system for emergency equipment in hospitals shall be **inspected, tested** and maintained in conformance with CSA-Z32, “Electrical Safety and Essential Electrical Systems in Health Care Facilities”.

(3) If an emergency power system or any part thereof is shut down

- (a) the **fire department** and **building** occupants shall be notified in accordance with Article 1.1.1.1., and
- (b) the **supervisory staff** shall be notified.

Instructions for switching and starting

6.7.1.2. Where an emergency power system is installed, instructions shall be provided for switching on essential loads and for starting the generator when this is not done automatically.

Inspection and testing

6.7.1.3. Despite the requirements of Subsection 1.1.2., written records shall be maintained as required in CSA-C282, “Emergency Electrical Power Supply for Buildings”.

Fuel supply

6.7.1.4. The amount of fuel stored and connected to the emergency power system shall be sufficient to operate the engine for at least 2 h.

6.7.1.5. (1) Liquid fuel **storage tanks** shall be drained and refilled with fresh fuel at intervals not greater than 12 months.

(2) The requirements of Sentence (1) may be achieved by replenishment as the result of the normal **test** program required in Article 6.7.1.1.

Inspection of emergency lighting unit equipment

6.7.1.6. (1) Self-contained emergency lighting unit equipment shall be inspected at intervals not greater than one month to ensure that

- (a) pilot lights are functioning and not obviously damaged or obstructed,
- (b) the terminal connections are clean, free of corrosion and lubricated when necessary,
- (c) the terminal clamps are clean and tight as per manufacturer's specifications,
- (d) the battery surface is kept clean and dry, and
- (e) the electrolyte level and specific gravity are maintained as per manufacturer's specifications.

(2) Self-contained emergency lighting unit equipment shall be tested

- (a) at intervals not greater than one month to ensure that the emergency lights will function upon failure of the primary power supply, and
- (b) at intervals not greater than 12 months to ensure that the unit will provide emergency lighting for a duration equal to the design criteria under simulated power failure conditions.

(3) After completion of the test required in Clause (2)(b), the charging conditions for voltage and current and the recovery period shall be tested to ensure that the charging system is in accordance with the manufacturer's specifications.

Inspection of emergency lights

6.7.1.7. (1) Except as provided in Article 6.7.1.6., emergency lights shall be inspected at intervals not greater than 12 months to ensure that they are functional.

(2) Where emergency power for the lights referred to in Sentence (1) is provided from a system of batteries, the batteries shall be inspected and tested in accordance with the procedures set out in Article 6.7.1.6.

Inspection of exit signs

6.7.1.8. (1) Except as provided in Sentence (2) and (3), exit signs shall be inspected at intervals not greater than 12 months to ensure that the exit signs will be visible upon failure of the primary power supply.

(2) Exit signs provided with a battery back-up shall be inspected at intervals

- (a) not greater than one month to ensure the exit signs will be visible upon failure of the primary power supply, and
- (b) not greater than 12 months to ensure the exit signs will be visible for a duration equal to the design criterion upon failure of the primary power supply.

(3) Exit signs that contain self-luminous or photoluminescent material shall be maintained in accordance with

- (a) the sign manufacturer's maintenance instructions, if any, and
- (b) the conditions outlined in the approval of the designated evaluation body under the Building Code, if any.

SECTION 6.8 SPECIAL FIRE SUPPRESSION SYSTEMS

Subsection 6.8.1. Inspection and Maintenance

6.8.1.1. (1) Except as otherwise provided in this Section, where special fire suppression systems have been installed, **inspection** and maintenance shall be provided in conformance with the appropriate standards set out in Sentences 2.1.3.5. (3), (4) and (5).

(2) Where a special fire suppression system of a type has been installed in accordance with a standard not referred to in Article 2.1.3.5., **inspection** and maintenance shall be provided in conformance with the specified standard and in the absence of a standard, to the manufacturer's recommended maintenance instructions.

(3) If a special fire suppression system or any part thereof is shut down

- (a) the **fire department** and **building** occupants shall be notified in accordance with Article 1.1.1.1., and
- (b) the **supervisory staff** shall be notified.

Test records

6.8.1.2. Written records shall be kept of **inspections**, maintenance and **testing** in conformance with Subsection 1.1.2.

Container maintenance

6.8.1.3. Extinguishing agent containers provided for special fire suppression systems shall be fully charged with the proper quantity of extinguishing agent and the necessary operating pressure maintained.

Discharge outlets

6.8.1.4. Discharge outlets for special fire suppression systems shall be kept free of dirt and residue.

Piping

6.8.1.5. Piping and equipment shall be mechanically secure and accessible for cleaning and maintenance.

Replacement equipment

6.8.1.6. No replacement equipment and devices provided for special fire suppression systems shall be used unless suitable for the installation in which they are to be placed.

SECTION 6.9 DECOMMISSIONING

Subsection 6.9.1. General

6.9.1.1. Except as otherwise provided in this Part, fire protection equipment and life safety systems shall not be decommissioned or permanently taken out of service without **approval**.

SECTION 6.10 INTEGRATED FIRE PROTECTION AND LIFE SAFETY SYSTEMS

Subsection 6.10.1. General

Testing and maintenance

6.10.1.1. (1) This Section applies to the **testing** and maintenance of integrated fire protection and life safety systems that are

- (a) installed on or after January 1, 2020, and
- (b) required by the **Building Code** to be verified in conformance with CAN/ULC-S1001, “Standard for Integrated Systems Testing of Fire Protection and Life Safety Systems”.

(2) Interconnections between fire protection and life safety systems shall be **tested** and maintained in conformance with CAN/ULC-S1001, “Standard for Integrated Systems Testing of Fire Protection and Life Safety Systems”.

(3) Records of integrated tests shall be made and retained in accordance with Subsection 1.1.2.

(4) The one year integrated test required by CAN/ULC-S1001, “Standard for Integrated Systems Testing of Fire Protection and Life Safety Systems” in Sentence (2) is waived for a fire protection and life safety system installed before January 1, 2026.

Obligation to ensure compliance

6.10.1.2. (1) The **owner** shall ensure that any person who performs the **testing** and maintenance of fire alarm system components that interconnect with other fire protection and life safety systems required under Article 6.10.1.1. is in compliance with the requirements of either

- (a) Clause 1.2.1.2.(1)(a) of Division C, or
- (b) Sentence 1.2.1.2.(2) of Division C.

PART 7
CHECKING, INSPECTION, TESTING, NOTIFICATION AND
MAINTENANCE OF FIRE EMERGENCY SYSTEMS IN HIGH
BUILDINGS

TABLE OF CONTENTS

SECTION 7.1	GENERAL
Subsection 7.1.1.	General
 SECTION 7.2	 CHECKING, INSPECTION, TESTING, NOTIFICATION AND MAINTENANCE OF CERTAIN FIRE EMERGENCY SYSTEMS
Subsection 7.2.1.	Intervals Between Tests
Subsection 7.2.2.	Elevators
Subsection 7.2.3.	Venting to Aid Fire Fighting
Subsection 7.2.4.	Central Alarm and Control Facilities and Voice Communication Systems for Life Safety
Subsection 7.2.5.	Maintenance
 SECTION 7.3	 INSPECTION, TESTING AND MAINTENANCE OF SMOKE CONTROL EQUIPMENT
Subsection 7.3.1.	General

SECTION 7.1 GENERAL

Subsection 7.1.1. General

Application

7.1.1.1. This Part applies to high **buildings** as described in Article 3.2.6.1. of Division B of the **Building Code**.

Requirements

7.1.1.2. The fire emergency systems required by this Code and the **Building Code** shall be **checked**, **inspected**, **tested** and maintained in accordance with Sections 7.2 and 7.3.

SECTION 7.2 CHECKING, INSPECTION, TESTING, NOTIFICATION AND MAINTENANCE OF CERTAIN FIRE EMERGENCY SYSTEMS

Subsection 7.2.1. Intervals Between Tests

Intervals between tests

7.2.1.1. Unless otherwise prescribed in this Part, **tests** shall be carried out at intervals of not more than three months.

Subsection 7.2.2. Elevators

Testing

7.2.2.1. (1) Elevator door-opening devices operated by means of photo-electric cells shall be **tested** to ensure that the devices become inoperative after the door has been held open for more than 20 s with the photo-electric cell covered.

(2) Key-operated switches located outside an elevator shaft shall be **tested** to ensure that actuation of the switch will render the emergency stop switch in each car inoperative and bring all cars to the **street** floor or transfer lobby by cancelling all other calls after the car has stopped at the next floor at which it can make a normal stop.

- (3) Key-operated switches in each elevator car shall be **tested** to ensure that actuation of the switch will
- (a) enable the elevator to operate independently of other elevators,
 - (b) allow operation of the elevator without interference from floor call buttons,
 - (c) render door protective devices inoperative, and
 - (d) control the opening of power-operated doors only by continuous pressure on the door-opening buttons or switches, to ensure that if the “OPEN” button or switch is released while the door is opening, the doors will automatically close.

Out of service requirements

- 7.2.2.2. (1) If a firefighters’ elevator is not operational
- (a) the **supervisory staff** shall be notified, and
 - (b) where the firefighters’ elevator is not operational for more than 24 hours, the **fire department** and the **building** occupants shall be notified by means of the procedure established under Sentence (2).

(2) A procedure of notification shall be established that may be used when a firefighters' elevator is out of service, and the procedure must include notifying the **fire department** and **building** occupants.

Subsection 7.2.3. Venting to Aid Fire Fighting

Inspection

7.2.3.1. (1) **Closures** in vent openings into smoke shafts from each **floor area** shall be **inspected** sequentially over a period not to exceed five years.

(2) Every **closure** in an opening to the outdoors at the top of a smoke shaft shall be **inspected** annually to ensure that it will open

- (a) manually from outside the **building**,
- (b) on a signal from the smoke or heat actuated device in the smoke shaft, and
- (c) when a **closure** in an opening between a **floor area** and the smoke shaft opens.

(3) In addition to the procedures described in Sentences (1) and (2), elevators in an elevator shaft that is intended for use as a smoke shaft shall be **inspected** semi-annually to ensure that on activation of the fire alarm system they will return to the **street** floor and remain inoperative.

(4) Where an air-handling system is used for venting **floor areas** in the event of a fire to comply with the requirements of the **Building Code**, the system shall be **inspected** annually to ensure that air is exhausted to the outdoors.

Subsection 7.2.4. Central Alarm and Control Facilities and Voice Communication Systems for Life Safety

7.2.4.1. The **checking**, **inspecting** and **testing** of central alarm and control facilities and voice communication systems for life safety shall be carried out in accordance with the requirements of Section 6.3.

Subsection 7.2.5. Maintenance

Maintenance of certain fire emergency systems

7.2.5.1. (1) In addition to the requirements of Part 6, components of fire emergency systems shall be maintained in accordance with Sentences (2) to (7).

(2) The keys required to recall elevators and to permit independent operation of each elevator shall be kept in the location required by the **Building Code**.

(3) Firefighters' elevators shall be maintained in operable condition.

(4) The firefighters' elevator symbol shall be maintained in identifiable condition.

(5) Access to windows and panels required to vent **floor areas** and vents to vestibules that are permitted to be manually openable shall be kept free of obstructions.

(6) Windows and panels provided for venting **floor areas** shall be maintained so as to be openable without the use of keys.

(7) Vents to vestibules that are permitted to be manually openable shall be maintained in operable condition.

SECTION 7.3 INSPECTION, TESTING AND MAINTENANCE OF SMOKE CONTROL EQUIPMENT

Subsection 7.3.1. General

7.3.1.1. Smoke control equipment shall be maintained in a manner that ensures that it is fully operational.

7.3.1.2. Where smoke control measures contained in Commentary C of NRCC, User's Guide –NBC 1995, "Fire Protection, Occupant Safety and Accessibility (Part 3)" are used, the **inspections** and **tests** shall be carried out as outlined in Section 7.3 of Division B of CCBFC, "National Fire Code of Canada 2020".

7.3.1.3. (1) Subject to Sentences (2) to (5), where a smoke control system is designed to meet the requirements of the **Building Code**, the **inspections** and **tests** for equipment shall be carried out in accordance with procedures established by the designer of the system.

(2) Where procedures described in Sentence (1) are not available, smoke control systems shall be assessed to ensure satisfactory operation and, where applicable, using techniques described in MMAH Supplementary Standard SB-4, "Measures for Fire Safety in High Buildings".

(3) Upon completion of the assessment described in Sentence (2), written procedures for periodic **inspections** and **tests** shall be established.

(4) The procedures described in Sentence (3) shall bear the signature and seal of a **Professional Engineer** or **Architect**.

(5) The **inspections** and **tests** established under Sentence (3) shall be implemented.

(6) Despite Sentences (1) and (3), other **inspection** and **test** procedures may be **approved**.

Doors in means of egress

7.3.1.4. Where vestibules, stairshafts or other areas are pressurized as a means of smoke control, all doors in the path of **exit** travel shall be **tested** to ensure that the doors can be operated as required in Article 2.7.2.1. when the entire smoke control system is being **tested**.

PART 8 DEMOLITION

TABLE OF CONTENTS

SECTION 8.1	GENERAL
Subsection 8.1.1.	Application
Subsection 8.1.2.	Requirements

SECTION 8.1 GENERAL

Subsection 8.1.1. Application

Application

8.1.1.1. This Part applies to fire safety for **buildings**, parts of buildings, facilities, adjacent **buildings** or facilities and associated areas undergoing **demolition** operations.

Subsection 8.1.2. Requirements

Building services

8.1.2.1. (1) Except as required in Sentence (2) and except for water supplies for firefighting, **building** services shall be terminated at a point located outside the **building** or part thereof under **demolition**.

(2) The service provider whose service connections will be affected shall be notified before any action mentioned in Sentence (1) is taken and, if it is necessary to maintain any service, it shall be

- (a) relocated as necessary, and
- (b) protected from damage.

Firewatch

8.1.2.2. (1) During periods when **demolition** operations create a fire hazard to parts of the **building** not under **demolition** or to neighbouring occupied spaces or neighbouring properties, a firewatch shall be conducted.

(2) If a firewatch is required, the **demolition** site shall be toured by firewatch personnel at least once each hour.

- (3) Facilities shall be provided to enable firewatch personnel to
- (a) ensure that a fire warning is sounded to notify occupants, and
 - (b) communicate with the **fire department**.

(4) Firewatch personnel shall be equipped with portable illumination and protective equipment.

(5) Before **demolition** of a **building** or part of a **building** is commenced, a safety plan for the **demolition** site shall be prepared and implemented.

(6) The **demolition** safety plan shall include

- (a) the designation and organization of site personnel to carry out fire safety duties, including a firewatch when required,
- (b) the emergency procedures to be followed in case of fire, including
 - (i) ensuring that a fire warning is sounded to notify occupants,
 - (ii) notifying the **fire department**, and
 - (iii) confining, controlling and extinguishing the fire,
- (c) the requirement to train site personnel to carry out fire safety duties, including a firewatch and the emergency procedures referred to in Clause (b),
- (d) the procedures to control fire hazards in and around the **demolition** site, including procedures to mitigate risks to parts of the **building** not under **demolition** or to neighbouring occupied spaces or neighbouring properties, and
- (e) the maintenance of fire fighting facilities.

(7) If a **demolition** involves a **building** that is required to have a fire safety plan that complies with Section 2.8, the fire safety plan shall take into account changes to the **building** arising from the **demolition** in accordance with Sentences 2.8.2.1.(4) and (5).

Storage of combustibles

8.1.2.3. (1) Combustible salvage, waste material and rubbish shall not be accumulated on site in such quantity or such location as to cause a fire hazard.

- (2) If temporary chutes are installed on the exterior of a **building**, the chutes shall
- (a) be of noncombustible material, or
 - (b) be installed a distance of at least 3 m from any opening in the **building** face.

Burning of rubbish

8.1.2.4. Rubbish shall not be burned on the premises unless permitted in accordance with Article 2.4.4.4.

Hot work equipment

8.1.2.5. The installation, operation and maintenance of hot work equipment shall be carried out in accordance with Section 5.17.

Standpipe systems

8.1.2.6. (1) Where a **building** being **demolished** floor by floor is equipped with a standpipe system, the system, together with **fire department** connections, valves, couplings and hose, shall be maintained in operable condition on all **storeys** below the one being demolished, except for the **storey** immediately below it.

(2) If no **fire department** standpipe connection exists in a **building** under **demolition** that is 4 **storeys** or more in **building height**, a temporary standpipe connection shall be provided.

(3) If no standpipe system exists in a **building** under **demolition** that is 8 **storeys** or more in **building height**, a temporary standpipe shall be provided.

(4) Standpipe systems shall be kept in such condition that they may be connected near **street** level, to a **fire department** pump, so as to supply water to every outlet on each floor.

(5) In a **building** under **demolition** that is over 84 m in height, the primary water supply serving the standpipe system, including fire pumps, shall be maintained in operating condition.

Access for fire fighting

8.1.2.7. (1) During **demolition**, fire fighting access routes shall be maintained in accordance with Section 2.5.

(2) Unobstructed access to fire hydrants, portable extinguishers and **fire department** connections for standpipe and sprinkler systems shall be maintained during **demolition**.

(3) If a **demolition** site is fenced so as to prevent general entry, provision shall be made for access by **fire department** equipment and personnel.

(4) Elevating devices shall be accessible for the use of firefighters for **buildings** under **demolition** that are more than 36 m in **building height**, measured between **grade** and the floor level of the top **storey**.

Portable extinguishers

8.1.2.8. (1) Portable extinguishers shall be provided in **buildings** under **demolition** in accordance with Subsection 6.2.6. as if the **buildings** were graded for ordinary hazard under Subsection 6.2.5.

(2) In addition to the other requirements of this Code, if a **building** is under **demolition**, portable extinguishers shall be provided in unobstructed and easily accessible locations in any areas

- (a) where hot work operations are carried out,
- (b) where combustibles are stored,
- (c) near or on any internal combustion engines,
- (d) where **flammable liquids** and **combustible liquids** or gases are stored or handled,

- (e) where temporary fuel-fired equipment is used,
 - (f) that are designated for smoking, and
 - (g) where bitumen heating equipment is used.
- (3) The extinguishers required by Sentence (2) shall have a minimum rating of
- (a) 3A:20B:C on moveable equipment, and
 - (b) 4A:40B:C in all other locations.
- (4) Portable extinguishers required in Sentences (1), (2) and (3) shall be maintained in conformance with Section 6.2.

Smoking prohibited

8.1.2.9. Smoking shall not take place in, on or near a **building** under **demolition**, except as provided in Subsection 2.4.3.

Ignition sources

8.1.2.10. (1) Devices capable of producing ignition, internal combustion engines, temporary heating equipment and associated devices shall be kept at a safe distance from combustible material so as not to cause ignition.

- (2) The clearance between combustible material and temporary heating equipment, including **flues**, shall comply with
- (a) the minimum clearance, if any, shown on certified heating equipment, or
 - (b) the minimum clearance specified in the **Building Code**, if no minimum clearance is shown on the heating equipment.

Temporary enclosures

8.1.2.11. Fabrics and films used to temporarily enclose **buildings** shall be securely fastened to prevent them from being blown against heaters or other ignition sources.

Provisions for egress

8.1.2.12. Unless otherwise **approved**, at least two **exits** shall be accessible and usable at all times.

Fire warning

8.1.2.13. A means shall be provided to alert site personnel of a fire and such means shall be capable of being heard throughout the **building** or facility.

Safety of tanks, piping and machinery reservoirs at demolition sites

8.1.2.14. (1) Tanks, piping and machinery reservoirs at a **demolition** site that contain **combustible liquids** or **flammable liquids** or that are likely to contain flammable vapours shall be drained and, except as permitted by Sentence (2), removed prior to the **demolition** of the **building**.

- (2) Where it is impracticable to remove tanks, piping or machinery reservoirs from the **building** prior to **demolition**, such equipment shall be
- (a) drained and purged with inert materials before **demolition** is commenced,
 - (b) clearly identified before **demolition** is commenced, and
 - (c) removed from the **building** as soon as conditions permit.
- (3) Tanks, piping and machinery reservoirs referred to in Sentences (1) and (2) that once contained **combustible liquids**, **flammable liquids** or flammable gases shall be purged with inert materials prior to **demolition** to prevent an explosion.

Fire separations in partly occupied buildings

8.1.2.15. Where part of a **building** continues to be occupied, the occupied part shall be separated from the part being **demolished** by a **fire separation** having a **fire-resistance rating** of not less than 1 h.

Protection during shutdown

8.1.2.16. (1) Except as permitted in Sentence (2), where a fire protection system is provided, the fire protection system shall remain operational throughout the **demolition** area, where reasonably practical.

(2) When any portion of a fire protection system is temporarily shut down during **demolition** operations, alternative measures shall be taken to ensure that protection is maintained.

PART 9 RETROFIT

TABLE OF CONTENTS

SECTION 9.1 GENERAL

- Subsection 9.1.1. General
- Subsection 9.1.2. Application
- Subsection 9.1.3. Schedule of Compliance
- Subsection 9.1.4. Life Safety Study

SECTION 9.2 ASSEMBLY OCCUPANCIES

- Subsection 9.2.1. Application and General
- Subsection 9.2.2. Containment
- Subsection 9.2.3. Means of Egress
- Subsection 9.2.4. Fire Alarm and Detection
- Subsection 9.2.5. Suppression

SECTION 9.3 BOARDING, LODGING AND ROOMING HOUSES

- Subsection 9.3.1. Application and General
- Subsection 9.3.2. Containment
- Subsection 9.3.3. Means of Egress
- Subsection 9.3.4. Fire Alarm and Detection
- Subsection 9.3.5. Suppression

SECTION 9.4 HEALTH CARE FACILITIES

- Subsection 9.4.1. Application and General
- Subsection 9.4.2. Containment
- Subsection 9.4.3. Means of Egress
- Subsection 9.4.4. Fire Alarm and Detection
- Subsection 9.4.5. Suppression

SECTION 9.5 BUILDINGS UP TO AND INCLUDING 6 STOREYS IN BUILDING HEIGHT WITH RESIDENTIAL OCCUPANCIES

- Subsection 9.5.1. Application and General
- Subsection 9.5.2. Containment
- Subsection 9.5.3. Means of Egress
- Subsection 9.5.4. Fire Alarm and Detection

- Subsection 9.5.5. Suppression

SECTION 9.6 BUILDINGS HIGHER THAN 6 STOREYS IN BUILDING HEIGHT WITH RESIDENTIAL OCCUPANCIES

- Subsection 9.6.1. Application and General
- Subsection 9.6.2. Containment
- Subsection 9.6.3. Means of Egress
- Subsection 9.6.4. Fire Alarm and Detection
- Subsection 9.6.5. Suppression

SECTION 9.7 BUILDINGS WITH A CARE OCCUPANCY OR RETIREMENT HOME

- Subsection 9.7.1. Application and General
- Subsection 9.7.2. Containment
- Subsection 9.7.3. Means of Egress
- Subsection 9.7.4. Fire Alarm and Detection
- Subsection 9.7.5. Suppression

SECTION 9.8 TWO UNIT RESIDENTIAL OCCUPANCIES

- Subsection 9.8.1. Application and General
- Subsection 9.8.2. Containment
- Subsection 9.8.3. Means of Egress
- Subsection 9.8.4. Fire Alarm and Detection
- Subsection 9.8.5. Suppression
- Subsection 9.8.6. Electrical

SECTION 9.9 HOTELS

- Subsection 9.9.1. Application and General
- Subsection 9.9.2. Containment
- Subsection 9.9.3. Means of Egress
- Subsection 9.9.4. Fire Alarm and Detection
- Subsection 9.9.5. Suppression

SECTION 9.1 GENERAL

SUBSECTION 9.1.1. GENERAL

Scope

9.1.1.1. This Part provides for the upgrading of existing **buildings** through **retrofit**.

Compliance

- 9.1.1.2. (1) The requirements of this Part shall be satisfied
- (a) by implementing the requirements of the applicable Section, or
 - (b) by implementing an **approved** Life Safety Study in accordance with Subsection 9.1.4.

Approved alternatives

9.1.1.3. A requirement of this Part is deemed to be complied with if materials, equipment or systems are **approved** that, in the opinion of the **Chief Fire Official**, will provide protection for life safety similar to the protection provided by compliance with the requirement.

Subsection 9.1.2. Application

Application

9.1.2.1. The requirements for **buildings** that are covered by this Part shall be determined by their **occupancies** as regulated in the appropriate Sections in this Part.

Exemptions

9.1.2.2. (1) This Part does not apply to a **building** that contains a **residential occupancy**, consisting of no more than one **dwelling unit**, and no other **major occupancy**.

(2) Except for Article 9.4.5.5. and Section 9.7 and 9.9, this Part does not apply to a **building** or part of a **building** that satisfies the applicable fire safety requirements of the **Building Code**.

(3) Section 9.7 does not apply to a **building** or part of a **building** that contains a **care occupancy** if the **building** or part of the **building** satisfies the applicable fire safety requirements for a **care occupancy** contained in the **Building Code** as it read at any time on or after April 6, 1998.

(4) Section 9.7 does not apply to a **building** or part of a **building** that contains a **retirement home**, if the **building** or part of the **building** satisfies the applicable fire safety requirements for a **retirement home** contained in the **Building Code** as it read at any time on or after January 1, 2014.

(5) Section 9.9 does not apply to a **building** or part of a **building** that satisfies the applicable fire safety requirements of the **Building Code** as it read at any time on or after July 1, 1993.

(6) Sections 9.2 to 9.9 do not apply to a **building** with respect to which the **Chief Fire Official** has granted an exemption under a predecessor of this Regulation during such period as the exemption is valid.

Subsection 9.1.3. Schedule of Compliance

Compliance time for health care facilities, care occupancies and retirement homes

9.1.3.1. (1) It is the responsibility of the **owner** of a **building** containing a home described in Section 9.4 to comply with Article 9.4.5.5. as of January 1, 2025.

(2) REVOKED: O. Reg. 87/25, s. 60.

Extension of time

9.1.3.2. If compliance is not possible by the date required under Article 9.1.3.1. because of a strike, material shortage or other circumstances beyond an **owner's** control, the **Chief Fire Official** may grant an extension of the time for compliance.

Subsection 9.1.4. Life Safety Study

Life Safety Study

- 9.1.4.1. (1) A Life Safety Study is a proposal to the **Chief Fire Official** that consists of
- (a) a detailed assessment of the life safety performance requirements, clearly identifying items not meeting the requirements of this Part,
 - (b) a detailed description of how an acceptable level of life safety can be achieved, and
 - (c) a detailed time schedule to implement the provisions of Clause (b).

Contents

- 9.1.4.2. (1) A Life Safety Study shall deal with, but is not limited to
- (a) containment, including
 - (i) **fire separations**,
 - (ii) **firewalls**,
 - (iii) construction assemblies,
 - (iv) **occupancy** separations, and
 - (v) interior finishes,
 - (b) detection, including
 - (i) alarm and detection systems, and
 - (ii) voice communication systems,
 - (c) suppression, including
 - (i) **fire department** access,
 - (ii) standpipe and hose systems,
 - (iii) sprinkler or special fire suppression systems, and
 - (iv) firefighters' elevators, and
 - (d) egress, including
 - (i) the number, type, **access to**, direction to, lighting for and identification of **exits**,
 - (ii) fire escapes,
 - (iii) **occupant load**, and
 - (iv) emergency lighting.

Signature and seal

9.1.4.3. A Life Safety Study shall bear the signature and seal of a **Professional Engineer** or **Architect**, or both.

Time schedule

9.1.4.4. The time schedule referred to in Clause 9.1.4.1.(1)(c) may provide for a compliance date after the compliance date required by Article 9.1.3.1.

Extension of time

9.1.4.5. An **owner** or the **owner's** agent may apply to the **Chief Fire Official** for an extension of the compliance date to permit time for a Life Safety Study to be submitted.

Extension following Order

9.1.4.6. (1) Where an **owner** or the **owner's** agent has received an **Order** that requires compliance with this Part, the **owner** or the **owner's** agent may apply within five days of receipt of the **Order** to the **Chief Fire Official** to extend the time for compliance pending submission of a Life Safety Study.

(2) Upon receipt of the application referred to in Sentence (1), the **Chief Fire Official** shall, within 10 days, review the application and either grant or refuse an extension of the time for compliance to permit submission of a Life Safety Study.

(3) The **Chief Fire Official** shall notify the **owner** or the **owner's** agent of the **Chief Fire Official's** decision in writing.

(4) Notification shall be served either personally or by mail.

(5) Where notification is by mail, it is deemed to have been served on the fifth day after the date of mailing.

(6) An **owner** or the **owner's** agent, within five days of being notified of a refusal to grant an extension of the time to submit a Life Safety Study, may request the reasons for the refusal in writing.

(7) The **Chief Fire Official** shall comply with the request referred to in Sentence (6) within 10 days after receipt thereof.

(8) An **owner** or the **owner's** agent who feels aggrieved by a decision to refuse an extension of time to submit a Life Safety Study may, within 30 days of the refusal, appeal the refusal in the same manner as though it were an **Order**.

Review

9.1.4.7. (1) Despite any other **Order** that requires compliance with this Part, the **Chief Fire Official** shall, within 30 days after receiving a Life Safety Study, review the Life Safety Study for implementation.

(2) Where a Life Safety Study is **approved** for implementation, the **Chief Fire Official** shall notify the **owner** or the **owner's** agent of the decision in writing.

(3) Where a Life Safety Study is not **approved**, the **Chief Fire Official** shall advise the **owner** or the **owner's** agent of the decision and the reasons therefor in writing.

(4) Notification shall be served either personally or by mail.

(5) Where notification is by mail, it is deemed to have been served on the fifth day after the date of mailing.

(6) An **owner** or the **owner's** agent who feels aggrieved by a decision not to **approve** a Life Safety Study may, within 30 days of the refusal, appeal the decision in the same manner as though it were an **Order**.

(7) Despite any other provision of this Part, a Life Safety Study that has been **approved** and implemented is deemed to satisfy an **Order** requiring compliance with this Part and made with respect to the same premises before the Life Safety Study was accepted.

Records

9.1.4.8. A copy of an **approved** Life Safety Study shall be kept on the premises to which it relates and be made available to the **Chief Fire Official** upon request.

SECTION 9.2 ASSEMBLY OCCUPANCIES

Subsection 9.2.1. Application and General

Assembly occupancies

9.2.1.1. (1) This Section applies to

- (a) art galleries,
- (b) auditoria,
- (c) beverage establishments,
- (d) bingo halls,
- (e) clubs,
- (f) community halls,
- (g) dance halls,
- (h) enclosed arenas,
- (i) exhibition halls,
- (j) gymnasias,
- (k) halls in religious establishments (excluding areas of worship),
- (l) lecture halls,
- (m) lodge rooms,
- (n) movie theatres,
- (o) museums,
- (p) opera houses,
- (q) restaurants,
- (r) television studios, and
- (s) theatres.

Exemption for educational facilities and hotels

9.2.1.2. (1) This Section does not apply to **assembly occupancies** in **buildings** that are regulated under the **Education Act** or the **Ministry of Training, Colleges and Universities Act**.

(2) This Section does not apply to a **building** or part of a **building** regulated under Section 9.9.

Definitions

9.2.1.3. For the purposes of this Section,

“**1986 Building Code**” means Ontario Regulation 419/86, as it read on February 11, 1987;

“existing” means in existence on February 11, 1987.

Subsection 9.2.2. Containment

Fire separations between major occupancies

9.2.2.1. (1) **Fire separations** shall be provided between **assembly occupancies** described in Subsection 9.2.1. and other **major occupancies** in compliance with Article 3.1.3.2. of the **1986 Building Code**.

(2) If Sentence (1) requires a fire separation having a 2 h **fire-resistance rating**, a **fire separation** having a **fire-resistance rating** not less than 1 h is deemed to comply with Sentence (1) if

- (a) the **building** is **sprinklered** with a sprinkler system that complies with Article 9.2.5.2., or
- (b) the **building** has a detection system that is connected to the **building** fire alarm system.

(3) If Sentence (1) requires a **fire separation** having a 1 h **fire-resistance rating**, a **fire separation** having a **fire-resistance rating** not less than 30 minutes is deemed to comply with Sentence (1) if

- (a) the **building** is **sprinklered** with a sprinkler system that complies with Article 9.2.5.2., or
- (b) the **building** has a detection system that is connected to the **building** fire alarm system.

Protection of openings in fire separations

9.2.2.2. (1) **Closures** that are in compliance with Sentences 3.1.6.4.(2) and 3.1.6.7.(1) of the **1986 Building Code** shall be provided in **fire separations**.

- (2) Where Sentence (1) requires
 - (a) a 1 h or a 45 min **fire-protection rating**, existing hollow metal or kalamein doors, with or without wired glass and equipped with self-closing devices, and existing hollow metal frames are deemed to be in compliance,
 - (b) a 1 h or a 45 min **fire-protection rating**, existing wired glass screens set in fixed steel frames are deemed to be in compliance, or
 - (c) a 20 min **fire-protection rating**, existing 45 mm solid core wood doors and existing solid wood frames are deemed to be in compliance.

(3) Despite the requirements referred to in Sentence (1), **fire dampers** or **fire stop flaps** are not required to be installed in existing noncombustible ducts at penetrations of a **fire separation**.

Fire separations for hazardous areas

9.2.2.3. (1) In high **buildings** classified in the **1986 Building Code** under Subsection 3.2.6., **fire separations** that are in compliance with Subsection 3.5.2. of the **1986 Building Code** shall be provided between **service rooms** and **assembly occupancies**.

(2) In **buildings** not referred to in Sentence (1), **fire separations** that are in compliance with Subsection 3.5.2. of the **1986 Building Code** shall be provided between **service rooms** and **assembly occupancies**.

(3) A **fire separation** having a **fire-resistance rating** not less than 30 minutes is deemed to comply with Sentence (2) if

- (a) the **service room** is **sprinklered**, or
- (b) a detection system is provided and connected to the **building** fire alarm system.

(4) **Fire separations** shall be provided between theatrical stages and **assembly occupancies** in compliance with Sentences 3.3.2.14.(3) to (5) of the **1986 Building Code**.

(5) Despite Sentence (4), existing **fire separations** may be **approved**.

Interior finishes

9.2.2.4. (1) Interior finishes shall comply with the **flame-spread rating** requirements under Clauses 3.1.4.5.(3)(g) and (h) and Subsection 3.1.11. of the **1986 Building Code**.

- (2) Where
 - (a) the finish is not an exposed expanded plastic, the assembly area is **sprinklered** and the sprinkler system complies with Article 9.2.5.2., the existing interior finish is deemed to be in compliance with Sentence (1), or
 - (b) the finish is treated with a fire retardant surface coating **listed** by a recognized **testing** laboratory and applied in accordance with the listing conditions, the finish is deemed to be in compliance with Sentence (1).

(3) Despite Sentence (1), existing interior finishes may be **approved**.

Subsection 9.2.3. Means of Egress

Occupant load determination

9.2.3.1. The **occupant load** for calculation of number and width of **exits** referred to in Articles 9.2.3.6. and 9.2.3.7. shall be in accordance with Article 2.7.1.4.

Access to exits; number and location

9.2.3.2. (1) Where the **occupant load** of a room exceeds 60 persons, at least two egress doorways shall be provided in such a manner that one doorway can provide egress if the other doorway becomes inaccessible to the occupants.

- (2) An existing room with one doorway is deemed to be in compliance with Sentence (1) where
- (a) the **occupant load** does not exceed 100 persons,
 - (b) the **floor area** is **sprinklered** and the sprinkler system complies with Article 9.2.5.2., and
 - (c) the **travel distance** does not exceed 23 m.

Access to exits

9.2.3.3. (1) **Access to exits** shall comply with Article 3.3.2.7. of the **1986 Building Code**.

(2) Existing **access to exits** through dead end corridors are deemed to be in compliance with Sentence (1) where

- (a) the **occupant load** does not exceed 20 persons, and
- (b) the travel distance does not exceed 6 m plus the width of the dead end corridor to a point where a choice of two directions of **exit** travel are available.

Minimum number of exits

9.2.3.4. (1) Each **floor area** shall be served by at least two **exits**.

(2) Despite Sentence (1), **floor areas** in **buildings** not exceeding 2 **storeys** in **building height** may be served by one **exit** where

- (a) the **occupant load** for the **floor area** does not exceed 60 persons,
- (b) the **floor area** does not exceed 200 m², and
- (c) the **travel distance** from any point on the **floor area** does not exceed 15 m.

Door swing

9.2.3.5. Each door serving as an **access to exit** from a room serving more than 60 persons shall open in the direction of **exit** travel and shall swing on its vertical axis.

Number of exits

9.2.3.6. (1) The minimum number of **exits** from a **floor area** shall be,

- (a) for an **occupant load** of 61 up to and including 600 persons, not less than two **exits**,
- (b) for an **occupant load** of 601 up to and including 1000 persons, not less than three **exits**, or
- (c) for an **occupant load** of more than 1000 persons, not less than four **exits**.

Total width

9.2.3.7. (1) The aggregate required width of **exits** shall be determined by multiplying the **occupant load** of the area served by

- (a) 6.1 mm (1/4 in) per person for ramps with a gradient of not more than 1 in 8, doorways, corridors and passageways, or
- (b) 9.2 mm (3/8 in) per person for ramps with a gradient of more than 1 in 8 and stairs.

9.2.3.8. The width of an **exit** stair or of a corridor used as an **access to exit** or as an **exit** shall not be less than 900 mm.

9.2.3.9. Where the total number of **exits** and the total width of **exits** comply with Articles 9.2.3.6. and 9.2.3.7., existing corridor and stair widths are deemed to be in compliance with Article 9.2.3.8.

Fire escapes permitted

9.2.3.10. A fire escape may be erected on an existing **building** to provide one or more of the exit facilities described in Article 3.4.1.2. of the **1986 Building Code**, provided that the fire escape does not serve **floor areas** above the fifth floor.

Fire escape construction

9.2.3.11. (1) Each fire escape shall be constructed to comply with Article 3.4.7.13. of the **1986 Building Code**, except as permitted in Article 9.2.3.18.

(2) Despite Sentence (1), an existing fire escape may be **approved**.

Emergency lighting

9.2.3.12. Emergency lighting shall comply with Article 3.2.7.3. of the **1986 Building Code**.

Exit signs

9.2.3.13. (1) Markings and signs for **exits** and **access to exits** shall comply with Subsection 3.4.5. of the **1986 Building Code**.

(2) Despite Sentence (1), existing markings and signs may be **approved**.

9.2.3.14. In **buildings** over 2 **storeys** in **building height**, any part of an **exit** ramp or stair that continues past the **exit** door at ground level to a **basement** shall be clearly marked by a sign indicating that it does not lead to an **exit**.

Separation of exits

9.2.3.15. (1) Where an **exit** stairway, an escalator or a moving walkway serves as a required **exit**, it shall be separated from the remainder of the **building** in accordance with Sentence 3.4.4.1.(1) of the **1986 Building Code**.

(2) Doors in **fire separations** required in Sentence (1) shall be equipped with self-closing devices.

(3) An existing **fire separation** having a **fire-resistance rating** not less than 45 min with **closures** having a **fire-protection rating** not less than 45 min is deemed to comply with Sentence (1).

(4) Existing wired glass screens set in fixed steel frames are acceptable in **fire separations** required by this Article.

Exits through lobbies

9.2.3.16. (1) **Exits** through a lobby area shall comply with the requirements of Clauses 3.4.4.1.(7)(c) to (f) of the **1986 Building Code**.

(2) Despite Sentence (1), there may be more than one **exit** through a lobby area if there is at least one alternate **exit** not through the lobby or an occupied space that is capable of serving at least 50% of the **occupant load** and that leads directly to the outside.

Ancillary rooms

9.2.3.17. (1) Storage rooms, **refuse storage rooms** and laundry rooms that open directly into an **exit** stairway shall be **sprinklered** and separated from the **exit** stairway by a **fire separation** having a **fire-resistance rating** not less than 45 min.

(2) Other rooms that open directly into an **exit** stairway shall be separated from the **exit** stairway by a **fire separation** having a **fire-resistance rating** not less than 45 min.

(3) Despite Sentences (1) and (2), existing rooms opening directly into an **exit** stairway may be **approved**.

9.2.3.18. (1) Openings adjacent to fire escapes shall comply with Sentence 3.4.7.13.(5) of the **1986 Building Code**.

(2) Existing openings are deemed to comply with Sentence (1) if each opening is **sprinklered** and the sprinkler system complies with Article 9.2.5.2.

(3) Despite Sentences (1) and (2), existing openings may be **approved**.

Subsection 9.2.4. Fire Alarm and Detection

Fire alarm systems

9.2.4.1. (1) Fire alarm and detection systems shall be installed in compliance with Subsection 3.2.4., excluding Article 3.2.4.7., of the **1986 Building Code**.

(2) Despite Sentence (1), existing fire alarm systems may be **approved** where the system reliability and performance will not increase the risk of life safety.

Subsection 9.2.5. Suppression

Access for fire fighting

9.2.5.1. (1) Access routes for fire fighting shall comply with Sentence 3.2.5.2.(1) of the **1986 Building Code**.

(2) Sentence (1) does not apply where the **building** is **sprinklered**.

(3) Access routes that do not comply with Sentence (1) may be **approved** where available **fire department** equipment has access to the **building** or alternative provisions are made under Subsection 2.8.2. for such access.

Sprinkler systems

9.2.5.2. (1) Except as permitted in Sentence (3), sprinkler systems shall comply with Article 3.2.5.5. of the **1986 Building Code**.

(2) An existing sprinkler system is deemed to be in compliance with Sentence (1) where the average sprinkler discharge density over the design area is at least equal to the minimum density corresponding to the area for the hazard classification as defined in Table 9.2.5.A.

(3) Where **buildings** with a ceiling height in excess of 9 m are required to be **sprinklered**, the design of the system shall be **approved** prior to installation.

(4) The water supply requirements for an existing sprinkler system shall be based on

- (a) the hazard classification, as determined in Table 9.2.5.A., and
- (b) the minimum sprinkler discharge density, area of application and sprinkler spacing, as determined in NFPA 13, “Standard for the Installation of Sprinkler Systems”, that corresponds to the hazard classification determined under Clause (a).

(5) Clause (4)(b) does not apply to the water supply requirements for an existing sprinkler system in an arena or an exhibition hall.

(6) The water supply requirements for an existing sprinkler system in an arena or an exhibition hall shall be based on the lesser area of

- (a) 100% of the display area, or
- (b) 280 m².

TABLE 9.2.5.A.

Forming Part of Article 9.2.5.2.

Hazard Classification*	Occupancy
Light Hazard	Art galleries Beverage establishments Gymnasias Halls in religious establishments (excluding areas of worship) Lecture halls Museums
Ordinary Hazard Group 1	Auditoria (excluding stages) Bingo halls Clubs Community halls Dance halls Lodge rooms Motion picture theatres Opera houses (excluding stages) Restaurants Television studios Theatres (excluding stages)
Ordinary Hazard Group 3	Enclosed arenas Exhibition halls Stages excluded in Ordinary Hazard Group 1

*Hazard Classification is defined as per NFPA 13, “Standard for the Installation of Sprinkler Systems”.

SECTION 9.3 BOARDING, LODGING AND ROOMING HOUSES

Subsection 9.3.1. Application and General

Application

9.3.1.1. (1) This Section applies to boarding houses, lodging houses, rooming houses and private rest homes in which residents do not require care or treatment because of age, mental or physical limitations, where

- (a) the **building height** does not exceed 3 **storeys** and the **building area** does not exceed 600 m²,
- (b) lodging is provided for more than four persons in return for remuneration or the provision of services or both, and
- (c) lodging rooms do not have both bathrooms and kitchen facilities for the exclusive use of individual occupants.

(2) This Section applies to homes for special care within the meaning of the **Homes for Special Care Act** or to homes that form part of the Community Homes for Opportunity program established by the Ministry of Health, where

- (a) the **building height** does not exceed 3 **storeys** and the **building area** does not exceed 600 m²,
- (b) sleeping accommodation is provided for more than three but not more than 10 residents, and
- (c) residents do not require nursing care.

(3) For the purposes of this Section,

“house” means a detached house, a semi-detached house or a row house used exclusively for boarding, lodging or rooming accommodation;

“row house” means a residential structure which

- (a) is one of a group of three or more horizontally attached residential structures, and
- (b) is separated vertically from one or two of the other structures by common walls which do not provide for internal access from the living space in one structure to another;

“semi-detached house” means a residential structure which

- (a) is one of two horizontally attached residential structures, and
- (b) is separated vertically from the other residential structure by a common wall which does not provide for internal access from the living space in one structure to the other.

Exemption for MCSS residences and hotels

9.3.1.2. (1) Subject to Sentence 9.3.1.1.(2), this Section does not apply to **residential occupancies** that are regulated under the **Ministry of Community and Social Services Act**.

(2) This Section does not apply to a **building** or part of a **building** regulated under Section 9.9.

Definitions

9.3.1.3. For the purposes of this Section,

“**1986 Building Code**” means Ontario Regulation 419/86, as it read on February 11, 1987;

“existing” means in existence on February 11, 1987.

Subsection 9.3.2. Containment

9.3.2.1. **Fire separations** required by this Section to have a **fire-resistance rating** shall comply with Subsection 9.10.3. of the **1986 Building Code**.

Floor assemblies

9.3.2.2. (1) Floor assemblies shall

- (a) be constructed as **fire separations**, and
- (b) have a **fire-resistance rating** not less than 30 min.

(2) Existing floor assemblies with ceilings consisting of lath and plaster, gypsum board or noncombustible materials are deemed to be in compliance with Sentence (1).

Basement fire separations

9.3.2.3. Where a **basement** does not contain a bedroom, recreation room, meeting room or hobby room, a **fire separation** having no **fire-resistance rating** between the **basement** and **first storey** is deemed to be in compliance with Clause 9.3.2.2.(1)(b).

Walls separating bedrooms

9.3.2.4. (1) Each guest room or **suite** of rooms shall have interior walls having a **fire-resistance rating** not less than 30 min.

(2) Existing wall assemblies consisting of membranes of lath and plaster or gypsum wallboard are deemed to be in compliance with Sentence (1).

Furnace room separations

9.3.2.5. (1) In a **building** where the **building height** is greater than 2 **storeys** or the **building area** is greater than 400 m², a **furnace** room that is located on a **floor area** that contains a bedroom, recreation room, meeting room or hobby room shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 45 min.

(2) Existing **fire separations** consisting of membranes of lath and plaster or gypsum board are deemed to be in compliance with Sentence (1).

(3) Where the required vertical **fire separation** in a **furnace** room is maintained and it is not practical in the circumstances to construct the ceiling as a **fire separation** having a **fire-resistance rating** of not less than 45 min, the **furnace** room area shall be **sprinklered**.

(a) with a spacing that does not exceed 9.5 m² per sprinkler, and

(b) so that the sprinklers provide a minimum average density of 6.5L/min/m² over the **furnace** room area.

(4) **Closures** in **fire separations** for a **furnace** room shall have a **fire-protection rating** not less than 45 min.

(5) A hollow metal or kalamein door and frame are deemed to be in compliance with Sentence (4).

(6) **Closures** referred to in Sentences (4) and (5) shall be equipped with latches and self-closing devices.

(7) Despite Sentence (1), **fire dampers** or **fire stop flaps** are not required in ducts at penetrations of a **fire separation**.

Combustion air

9.3.2.6. Where a **furnace** room is separated to comply with the requirements of Article 9.3.2.5., sufficient combustion air shall be brought directly from the exterior for the proper combustion and safe operation of the **appliance**.

Subsection 9.3.3. Means of Egress*Number of exits*

9.3.3.1. (1) Each **floor area** shall be served by at least two **exits**.

(2) Where sleeping accommodation is not provided for more than 10 persons, one **exit** from each of the first and second floor **floor areas** is deemed to be in compliance with Sentence (1).

(3) Where sleeping accommodation is not provided in the **basement**, one **exit** from the **basement** is deemed to be in compliance with Sentence (1).

Acceptable exits

9.3.3.2. (1) **Exits** required by Article 9.3.3.1. shall comply with the requirements of Articles 9.9.2.2. and 9.9.2.3. of the **1986 Building Code**.

(2) Despite Sentence 9.3.3.5.(1), not more than one required **exit** from the **basement** may lead through the first floor **floor area**.

(3) Where sleeping accommodation is not provided for more than 10 persons, corridors that are contiguous to a stairway may form part of the stairway enclosure.

(4) Only one stairway enclosure described in Sentence (3) may be used as an **exit**.

(5) Where a fire escape of the type referred to in Article 9.3.3.4. is used as an **exit**, it is deemed to comply with the requirements of Articles 9.9.2.2. and 9.9.2.3. of the **1986 Building Code**.

9.3.3.3. Despite Articles 9.3.3.1. and 9.3.3.2., alternative measures may be **approved** where, in the opinion of the **Chief Fire Official**, they will provide protection for life safety similar to the protection provided by compliance with Articles 9.3.3.1. and 9.3.3.2.

Fire escapes

9.3.3.4. (1) Each fire escape used as an **exit** shall be constructed in compliance with Article 3.4.7.13., excluding Sentences (4) and (5), of the **1986 Building Code**.

(2) Despite Sentence (1), existing fire escapes may be **approved**.

(3) Access to fire escapes shall be from corridors.

Protection of exits

9.3.3.5. (1) Each **exit** other than a doorway opening directly onto a fire escape or to the outdoors at ground level shall be separated from the remainder of the **building** or from another **exit** by a **fire separation** having a **fire-resistance rating** not less than 30 min.

(2) Existing **exit** stairways separated from the remainder of the **building** by walls consisting of lath and plaster or gypsum wallboard are deemed to be in compliance with Sentence (1).

(3) Despite Sentence (1), an existing separation of noncombustible material may be **approved**.

Interior stairways

9.3.3.6. (1) Floor separations shall be maintained at interior stairways that are not required **exits**.

(2) The floor separation shall be maintained at an **exit** permitted in Sentence 9.3.3.2.(2).

9.3.3.7. Floor separations required in Article 9.3.3.6. shall be rated in accordance with Articles 9.3.2.2. and 9.3.3.5.

Protection of openings in fire separations

9.3.3.8. (1) **Closures** in **fire separations** required under Article 9.3.3.5. and in floor separations required under Article 9.3.3.6. shall

- (a) be constructed in accordance with Article 9.10.3.1. of the **1986 Building Code**,
- (b) have a **fire-protection rating** not less than 20 min, and
- (c) if the **closure** is openable, be equipped with self-closing and latching devices.

(2) **Closures** located along contiguous corridors permitted in Sentence 9.3.3.2.(3) shall comply with Sentence (1).

(3) A 45 mm solid core wood, hollow metal or kalamein door, equipped with self-closing and latching devices, is deemed to comply with Sentences (1) and (2).

(4) Despite Sentences (1) and (2), frames for doors described in Sentence (3) may be of wood, hollow metal or kalamein construction.

(5) Despite Sentences (1) and (2), **fire dampers** or **fire stop flaps** are not required in ducts at penetrations of a **fire separation**.

9.3.3.9. Existing wired glass **closures** set in fixed steel frames in a **fire separation** are deemed to be in compliance with Article 9.3.3.8.

Exit signs

9.3.3.10. (1) **Exit** signs shall be located along a **means of egress** so that directions of **exit** travel are apparent to the occupants.

- (2) **Exit** signs required by Sentence (1) shall have the word “EXIT” in block letters and such letters shall be
- (a) internally or externally illuminated,
 - (b) coloured red on an opaque or contrasting field, and
 - (c) at least 115 mm high with a 19 mm stroke.

Interior finishes

9.3.3.11. (1) The **flame-spread rating** of interior wall and ceiling finishes within a **means of egress** shall not exceed 200.

(2) Despite Sentence (1), the **flame-spread rating** of interior wall and ceiling finishes of corridors and stairways shall not exceed 150.

(3) Doors within corridors and stairways referred to in Sentence (2) are permitted to have a **flame-spread rating** of up to 200.

Illumination of egress

9.3.3.12. Corridors and stairways shall be lighted to the intensity of 50 lx measured at the floor level, or 5 watts/m² of **floor area**.

Emergency lighting

9.3.3.13. Where sleeping accommodation is provided for more than 10 persons, emergency lighting shall be provided to corridors and stairways in accordance with Articles 9.9.11.4. and 9.9.11.5. of the **1986 Building Code**.

Subsection 9.3.4. Fire Alarm and Detection*Fire alarm requirements*

9.3.4.1. (1) A **building** to which this Section applies that does not have floor assemblies having a minimum 45 min **fire-resistance rating** and **public corridors** or corridors serving sleeping rooms not within a **dwelling unit** that are not fire-separated from the remainder of the **building** by a minimum 30 min **fire-resistance rating** shall have a fire alarm system that complies with Articles 9.10.17.5. and 9.10.17.11. of the **1986 Building Code**, and shall have

- (a) **smoke alarms** that comply with Sentence (2) and that are installed and interconnected so that the activation of any **smoke alarm** will sound a similar signal in each of the interconnected devices, or
 - (b) fire alarm system **smoke detectors** installed on the ceiling of each floor adjacent to each stairway, and on the ceiling in the **basement** adjacent to each stairway.
- (2) **Smoke alarms** referred to in Clause (1)(a) shall
- (a) be installed on the ceiling in the corridor of each floor adjacent to each stairway and on the ceiling in the **basement** adjacent to each stairway,
 - (b) be on a separate circuit with no disconnect switch between the overcurrent device and the **smoke alarms**, and
 - (c) employ devices and an interconnected installation that are **listed**.

9.3.4.2. (1) A fire alarm system complying with Articles 9.10.17.4., 9.10.17.5. and 9.10.17.11. of the **1986 Building Code** shall be installed where

- (a) sleeping accommodation is provided for more than 10 persons, and

- (b) the floor assemblies have a **fire-resistance rating** not less than 45 min and **public corridors** or corridors serving sleeping rooms not within a **dwelling unit** are separated from the remainder of the **building** by **fire separations** having a **fire-resistance rating** not less than 30 min.

9.3.4.3. Where a fire alarm system is required and sleeping accommodation is not provided for more than 14 persons, an interconnected **smoke alarm** system in accordance with Clause 9.3.4.1.(1)(a) is deemed to be in compliance with Article 9.3.4.2.

9.3.4.4. Despite Articles 9.3.4.1. and 9.3.4.2., existing fire alarm systems may be **approved** where the system reliability and performance will not increase the risk of life safety.

Smoke alarms in sleeping rooms

9.3.4.5. (1) A **smoke alarm** shall be installed in each sleeping room.

(2) **Smoke alarms** shall

- (a) be permanently connected to an electrical circuit with no disconnect switch between the overcurrent device and the **smoke alarm**, or
- (b) be battery-operated.

(3) **Smoke alarms** shall meet the requirements of

- (a) CAN/ULC-S531, “Standard for Smoke Alarms”, and
- (b) CAN/ULC-S553, “Standard for the Installation of Smoke-Alarms”.

Subsection 9.3.5. Suppression

Portable extinguishers

9.3.5.1. (1) Despite the provisions of Subsection 6.2.6., at least one 2A rated portable extinguisher shall be provided on each floor.

(2) At least one 5B:C rated portable extinguisher shall be installed in each kitchen where shared cooking facilities exist.

SECTION 9.4 HEALTH CARE FACILITIES

Subsection 9.4.1. Application and General

Application

9.4.1.1. (1) This Section applies to

- (a) homes for special care regulated under the **Homes for Special Care Act** or that form part of the Community Homes for Opportunity program established by the Ministry of Health in which sleeping accommodation is provided for more than 10 residents,
- (b) long-term care homes regulated under the **Fixing Long-Term Care Act, 2021**,
- (c) private hospitals regulated under the **Private Hospitals Act**, or
- (d) public hospitals regulated under the **Public Hospitals Act**.

Definitions

9.4.1.2. For the purposes of this Section,

“**1986 Building Code**” means Ontario Regulation 419/86, as it read on February 11, 1987;

“existing” means in existence on February 11, 1987.

Subsection 9.4.2. Containment

Construction

9.4.2.1. (1) **Fire separations** required under this Section to have a **fire-resistance rating** shall comply with Subsection 3.1.5. and Articles 3.1.6.1., 3.1.6.2. and 3.1.6.3. of the **1986 Building Code**.

(2) If a **fire-resistance rating** of 1 h or less is required, existing wall assemblies, floor assemblies and ceilings and their supporting assemblies are deemed to comply with Sentence (1) if they consist of lath and plaster or gypsum board.

(3) **Heavy timber construction** that complies with Article 3.1.4.4. of the **1986 Building Code** is deemed to have a 45 min **fire-resistance rating**.

(4) **Buildings** with limited combustible components may be **approved** as **noncombustible construction**.

(5) Floor assemblies shall be constructed as **fire separations** with **fire-resistance ratings** in accordance with this Subsection.

Combustible construction up to 2 storeys

9.4.2.2. (1) **Buildings** of **combustible construction** shall comply with the provisions of Sentence (2) where the **building** is

- (a) 1 **storey** in **building height** and not greater than 1000 m² in **building area**, or
- (b) 2 **storeys** in **building height** and not greater than 500 m² in **building area**.

(2) Floor assemblies and walls, columns and arches supporting floor assemblies shall have a **fire-resistance rating** not less than 45 min.

(3) Despite Sentence (2), where the **building** is **sprinklered**, a **fire-resistance rating** is not required for floor assemblies or for walls, columns and arches supporting floor assemblies.

Combustible construction up to 4 storeys

9.4.2.3. (1) **Buildings** of **combustible construction** shall comply with the provisions of Sentences (2) and (3) where the **building** is

- (a) not more than 1 **storey** in **building height** and not greater than 2400 m² in **building area**,
- (b) not more than 2 **storeys** in **building height** and not greater than 1600 m² in **building area**, or
- (c) not more than 4 **storeys** in **building height** and not greater than 500 m² in **building area**.

(2) Floor assemblies and walls, columns and arches supporting floor assemblies shall have a **fire-resistance rating** not less than 45 min.

(3) Despite Sentence 9.4.4.2.(2), **smoke detectors** shall be provided in bedrooms, corridors, lounges and sitting areas.

(4) A **building** that is **sprinklered** is deemed to be in compliance with Sentences (2) and (3).

All other buildings

9.4.2.4. (1) **Buildings** not described in Articles 9.4.2.2. and 9.4.2.3. shall

- (a) have a **fire-resistance rating** not less than 45 min for floor assemblies and walls, columns and arches supporting floor assemblies, and
- (b) be **sprinklered**, where the **building** is of **combustible construction**.

(2) If only the roof assembly of a **building** is of **combustible construction**, the **building** is deemed to comply with Clause (1)(b) if

- (a) the top **storey** and **attic space** are **sprinklered**, or
- (b) the ceiling membrane has a **fire-resistance rating** not less than 45 min and the **attic space** is **fire stopped** in accordance with Article 3.1.9.3. of the **1986 Building Code**.

Fire separations between occupancies

9.4.2.5. (1) **Fire separations** having a **fire-resistance rating** not less than 1 h shall be provided between **occupancies** regulated under this Section and other **major occupancies**.

(2) **Fire separations** having a **fire-resistance rating** not less than 30 min are deemed to comply with Sentence (1) if

- (a) the **building** is **sprinklered** and the sprinkler system complies with Article 9.4.5.2., or
- (b) the part of the **building** containing the other **major occupancy** is equipped with **heat detectors** and connecting corridors are equipped with **smoke detectors** as part of the fire alarm system of the **building**.

(3) Existing wall or floor assemblies consisting of masonry or membranes of lath and plaster or gypsum board are deemed to be in compliance with Sentence (1).

Fire separations between bedrooms and corridors

9.4.2.6. (1) Bedrooms or compartments containing related rooms shall be separated from adjacent rooms by **fire separations** having a **fire-resistance rating** not less than 45 min.

(2) Corridors serving bedrooms shall be separated from adjacent rooms, except sitting areas, lounges, nurses stations and washrooms, by **fire separations** having a **fire-resistance rating** not less than 45 min.

(3) Where the **floor area** is **sprinklered**, an existing **fire separation** is deemed to be in compliance with Sentences (1) and (2).

(4) A **fire separation** having a **fire-resistance rating** not less than 30 min is deemed to comply with Sentences (1) and (2) if

- (a) **smoke detectors** are installed in bedrooms, sitting areas, lounges and corridors serving bedrooms on the **floor area**, and
- (b) **heat detectors** are installed in other rooms opening onto corridors serving bedrooms.

Safe areas of refuge

9.4.2.7. (1) **Floor areas** containing rooms or areas used by the residents shall be separated into at least two zones by **fire separations** having a **fire-resistance rating** not less than 45 min.

(2) Each zone required in Sentence (1) shall

- (a) contain at least one acceptable **exit**, and
- (b) be able to accommodate, in addition to its own occupants, the occupants of the adjacent zone, based on the requirements of 0.5 m² of clear floor space per person, 1.6 m² per person in a wheelchair, and 2.4 m² for each bedridden patient as the **occupancy** requires.

(3) A **fire separation** is not required under Sentence (1) where

- (a) the travel distance between **exits** does not exceed 9 m and the number of occupants on the **floor area** is not more than 10 persons, or
- (b) the **floor area** is served by exterior **exit** doors leading directly to the outside.

Protection of openings in fire separations

9.4.2.8. (1) **Closures** in **fire separations** shall comply with the requirements of Sentences 3.1.6.4.(2), 3.1.6.7.(1) and 3.1.6.8.(1) and Article 3.1.6.9. of the **1986 Building Code**.

(2) Openings in a **fire separation** that is required to have a 30 min **fire-resistance rating** shall be protected with **closures** that have a **fire-protection rating** not less than 20 min.

(3) Where Sentences (1) and (2) require

- (a) a 1.5 h **fire-protection rating**, existing hollow metal doors, with or without wired glass panels not exceeding 645 cm², equipped with self-closing devices and existing hollow metal frames are deemed to be in compliance,
 - (b) a 45 min **fire-protection rating**, existing hollow metal or kalamein doors, with or without wired glass, equipped with self-closing devices and existing hollow metal frames are deemed to be in compliance,
 - (c) a 45 min **fire-protection rating**, existing wired glass screens set in fixed steel frames are deemed to be in compliance, or
 - (d) a 20 min **fire-protection rating**, existing 45 mm solid core wood doors equipped with self-closing devices and existing solid wood frames are deemed to be in compliance.
- (4) Existing doors to bedrooms not conforming to Sentences (1) to (3) may be **approved**.
- (5) Despite Sentence (1), and except as permitted in Article 9.4.2.9., door assemblies required to have a 20 min **fire-protection rating** shall be equipped with self-closing devices.
- (6) Despite Sentences (1) and (2), **fire dampers** or **fire stop flaps** are not required in ducts at penetrations of an existing **fire separation**.

Latches on bedroom doors

9.4.2.9. Where a door to a bedroom is not equipped with a self-closing device, a latch that can hold the door in the closed position shall be installed.

Fuel-fired appliance service rooms

9.4.2.10. (1) Fuel-fired **appliances** shall be enclosed in a **service room** separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 45 min.

(2) Sentence (1) does not apply to a fuel-fired **appliance** that serves only one bedroom.

(3) Despite Sentence (1), where the required vertical **fire separation** to a **service room** is provided and it is not practical in the circumstances to construct the ceiling as a **fire separation** having a **fire-resistance rating** of not less than 45 min, the **service room** area shall be **sprinklered**

- (a) with a spacing that does not exceed 9.5 m² per sprinkler, and
- (b) so that the sprinklers provide a minimum average density of 6.5L/min/m² over the **furnace** room area.

Combustion air

9.4.2.11. Where a **furnace** room is separated to comply with the requirements of Article 9.4.2.10., sufficient combustion air shall be brought directly from the exterior for the proper combustion and safe operation of the **appliance**.

Transformer vaults

9.4.2.12. A transformer vault shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 2 h.

Vertical service spaces

9.4.2.13. (1) **Vertical service spaces** shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 45 min.

(2) Where openings in the **vertical service space**, including the top and bottom, are sealed with noncombustible materials having the same **fire-resistance rating** as the existing construction, the **vertical service space** is deemed to be in compliance with Sentence (1).

Refuse and linen chutes

9.4.2.14. (1) Automatic sprinklers shall be installed at the top and at alternate floor levels in each linen or refuse chute and in the room or bin into which the chute discharges.

(2) An existing linen chute installation is deemed to be in compliance with Sentence (1) where the room into which the linen chute discharges is **sprinklered** and at least one sprinkler head is installed at the top of the linen chute.

(3) Each room into which a linen or refuse chute discharges shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 1 h.

Incinerator rooms

9.4.2.15. Incinerators shall be enclosed in a **service room** separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 2 h.

Subsection 9.4.3. Means of Egress

Access to exits

9.4.3.1. (1) Bedrooms or compartments containing related rooms on a **floor area** shall have a doorway leading to an interior corridor where it shall be possible to go in opposite directions to each of two separate **exits**.

(2) **Access to exits** through a dead end corridor is deemed to be in compliance with Sentence (1) where

- (a) the number of persons served does not exceed 10 persons, and
- (b) the travel distance does not exceed 6 m plus the width of the dead end corridor, to a point where a choice of two directions of **exit** travel is available.

(3) Where a bedroom or a compartment containing related rooms is served by an **exit** door leading directly to the outside or to an exterior passageway, a doorway leading to an interior corridor served by one **exit** is deemed to be in compliance with Sentences (1) and (2).

(4) Where a dead end corridor does not satisfy the travel distance as described in Sentence (2), the existing corridor is deemed to be in compliance where additional fire protection measures are provided that are **approved**.

Number of exits

9.4.3.2. Each **floor area** used by patients or residents shall be served by not fewer than two **exits**.

Stairway separations

9.4.3.3. (1) Each **exit** stairway shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 45 min.

(2) **Closures** in stairway **fire separations** shall conform to Article 9.4.2.8.

Door swing

9.4.3.4. (1) Each **exit** door shall open in the direction of **exit** travel and swing on its vertical axis.

(2) Existing door swing arrangements not in conformance with Sentence (1) may be **approved**.

Exit signs

9.4.3.5. (1) Signs for **exits** and **access to exits** shall comply with the requirements of Article 3.4.5.1. of the **1986 Building Code**.

(2) Despite Sentence (1), existing signs may be **approved**.

Fire escapes

9.4.3.6. (1) A fire escape shall not be erected on an existing **building** unless it is not practical in the circumstances to provide one or more **exit** facilities, described under Article 3.4.1.2. of the **1986 Building Code**, and provided that the fire escape does not serve **floor areas** above the second floor.

(2) A fire escape permitted under Sentence (1) shall be constructed to comply with the requirements of Article 3.4.7.13. of the **1986 Building Code**, except that the fire escape shall not be less than 1100 mm in width when serving **floor areas** with non-ambulatory residents.

(3) Despite Sentences (1) and (2), an existing fire escape may be **approved**.

Emergency lighting

9.4.3.7. Emergency lighting shall be provided in accordance with the provisions of Article 3.2.7.3. of the **1986 Building Code**.

Subsection 9.4.4. Fire Alarm and Detection

Fire alarm requirements

9.4.4.1. A fire alarm and detection system shall be installed in each **building**.

9.4.4.2. (1) Fire alarm and detection systems shall comply with the requirements of Subsection 3.2.4. of the **1986 Building Code**.

(2) Despite Sentence (1), in **buildings** constructed prior to December 1, 1983, **heat detectors** may be installed in bedrooms, corridors and stair shafts to satisfy the **1986 Building Code**, except where other detection is required by Sentences 9.4.2.3.(3), 9.4.2.5.(2) or 9.4.2.6.(4).

(3) Despite Sentences (1) and (2), where the **Chief Fire Official** is satisfied that the performance and reliability of an existing fire alarm system will provide an adequate early warning level, the existing system may remain, be modified or be extended, provided compatibility of components is maintained.

Signals to fire department

9.4.4.3. (1) Each fire alarm system shall be connected to the **fire department** headquarters by

- (a) a direct connection, provided the **fire department** has the necessary facilities to accept such a connection, or
- (b) a central station or proprietary control station.

(2) Where the provisions required in Sentence (1) are not available, a procedure for notifying the **fire department** shall be **approved**.

Shutdown of air handling systems

9.4.4.4. (1) Recirculating air handling systems that serve more than 1 **storey** or more than one zone as described in Sentence 9.4.2.7.(1) shall be arranged to shut down upon actuation of the fire alarm system.

(2) In **buildings** greater than 6 **storeys** in **building height**, air handling systems serving more than 1 **storey** or more than one zone as described in Article 9.4.2.7. shall be arranged to shut down upon actuation of the fire alarm system, except where continued operation of the air handling system serves as part of a smoke control system.

Subsection 9.4.5. Suppression

Access for fire fighting

9.4.5.1. (1) Access routes for fire fighting shall be provided in accordance with the requirements of Article 3.2.5.2. of the **1986 Building Code**.

(2) Sentence (1) does not apply where the **building** is **sprinklered**.

(3) Access routes that do not comply with Sentence (1) may be **approved** where available **fire department** equipment has access to the **building** or alternative provisions are made under Subsection 2.8.2. for such access.

Sprinkler systems

9.4.5.2. (1) Sprinkler systems shall be designed in conformance with Article 3.2.5.5. of the **1986 Building Code**.

(2) Despite Sentence (1), water supply requirements for sprinkler systems required in this Section may be based on

- (a) the operation of at least three sprinkler heads spaced not to exceed 14.4 m² per head, and
- (b) a sprinkler discharge rate of not less than 100 L/min at any single operating sprinkler head for a duration of 30 min.

(3) Despite Sentences (1) and (2), existing sprinkler systems providing adequate protection may be **approved**.

Firefighters' elevators

9.4.5.3. (1) In **buildings** greater than 6 **storeys** in **building height**, at least one elevator shall be provided for use by firefighters.

(2) An elevator is deemed to be in compliance with Sentence (1) where

- (a) the elevator is capable of providing transportation from the **street** floor to each floor normally served by the elevator system,
- (b) the elevator is identified on the **street** floor as an elevator for use by firefighters,
- (c) the elevator satisfies the requirements of Article 3.2.6.3. of the **1986 Building Code**, and
- (d) other elevator cabs in the same shaft as the elevator for use by firefighters satisfy the requirements of Sentences 3.2.6.3.(1) and (2) of the **1986 Building Code**.

Voice communication systems

9.4.5.4. (1) In **buildings** greater than 6 **storeys** in **building height**, a voice communication system shall be provided in accordance with the requirements of Article 3.2.4.16. of the **1986 Building Code**.

(2) A public address system compatible with the fire safety plan required under Subsection 2.8.2. is deemed to be in compliance with Sentence (1).

Sprinkler systems

9.4.5.5. (1) **Buildings** containing a home described in Clause 9.4.1.1.(1)(a) or (b) that is a **care occupancy** or a **care and treatment occupancy** shall be **sprinklered** in conformance with Sentences (2) to (5) and the sprinkler system shall be installed

- (a) throughout the building, or
- (b) where the building is only partially occupied by the home, on those storeys of the building that are occupied by the home.

(2) Except as permitted in Sentence (3), an automatic sprinkler system shall be installed in accordance with NFPA 13, "Standard for the Installation of Sprinkler Systems".

(3) In **buildings** not greater than 6 **storeys** in **building height**, sprinkler systems may be installed in accordance with NFPA 13R, “Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height”.

(4) Sprinkler systems shall be equipped with local electric waterflow alarms.

(5) If a fire pump is required by NFPA 13 or NFPA 13R, it shall be installed in accordance with NFPA 20, “Standard for the Installation of Stationary Pumps for Fire Protection”, if it has a rated net head pressure greater than 280 kPa.

(6) **Buildings** described in Sentence (1) that are **sprinklered** in conformance with Article 9.4.5.2. on January 1, 2014 are deemed to be in compliance with Sentence (1).

(7) Despite Clause (1)(b), installation of a sprinkler system is not required for those **storeys** containing a home where the home occupies no more than 10% of the **floor area** of the **storey**.

SECTION 9.5 BUILDINGS UP TO AND INCLUDING 6 STOREYS IN BUILDING HEIGHT WITH RESIDENTIAL OCCUPANCIES

Subsection 9.5.1. Application and General

Application

9.5.1.1. (1) This Section applies to **buildings** up to and including 6 **storeys** in **building height** with **residential occupancies** and containing

- (a) more than two **dwelling units** where
 - (i) at least two **dwelling units** share common **exit** facilities and have interior access to one another,
 - (ii) there is at least one **dwelling unit** located above another with interior access to one another, or
 - (iii) there is at least one **dwelling unit** located above another and the **dwelling units** share common **exit** facilities,
- (b) sleeping accommodation for more than 10 persons, in one or more dormitories, or
- (c) boarding, lodging or rooming accommodation for more than four persons where Sections 9.3 and 9.4 do not apply.
- (d) REVOKED: O. Reg. 87/25, s. 69 (1).

(2) Despite Sentence (1), if a **building** that is governed by this Section contains, in addition to its **residential occupancies**, one or more other **occupancies** that are not governed by any other Section of this Part, this Section does not apply to the fire safety systems, devices and structural elements of the other **occupancies** that do not affect the life safety of the **residential occupancy**.

(3) If a **building** that is governed by this Section contains, in addition to its **residential occupancies**, one or more other **occupancies** that are governed by other Sections of this Part, the fire safety systems, devices and structural elements of the other **occupancies** governed by those Sections shall comply with the requirements of this Part that provide the greatest protection for life safety.

(4) For the purposes of this Section, a self-contained living unit that consists of boarding, lodging or rooming accommodation for four or fewer persons, and includes both bathroom and kitchen facilities for the exclusive use of persons residing in the unit, shall be deemed to be a **dwelling unit**.

Exemption for convents, monasteries and hotels

9.5.1.2. (1) This Section does not apply to convents and monasteries.

(2) This Section does not apply to a **building** or part of a **building** regulated under Section 9.9.

Definitions

9.5.1.3. For the purposes of this Section,

“**1990 Building Code**” means Ontario Regulation 413/90, as it read on October 9, 1992;

“existing” means in existence on October 9, 1992.

Subsection 9.5.2. Containment

Construction

9.5.2.1. (1) **Fire separations** required under this Section to have a **fire-resistance rating** shall comply with Subsection 3.1.7. and Articles 3.1.8.1., 3.1.8.2., 3.1.8.3. and 3.5.4.2. of the **1990 Building Code**.

(2) If a **fire-resistance** rating of 1 h or less is required, existing wall assemblies, floor assemblies, ceilings and their supporting assemblies, consisting of membranes of lath and plaster or gypsum board, are deemed to comply with Sentence (1).

(3) **Heavy timber construction** that complies with Article 3.1.4.6. of the **1990 Building Code** is deemed to have a 45 min **fire-resistance rating**.

(4) **Buildings** with limited combustible components may be **approved** as **noncombustible construction**.

(5) Floor assemblies shall be constructed as **fire separations** with **fire-resistance ratings** that comply with Articles 9.5.2.2. to 9.5.2.5.

(6) Sentence (5) does not apply to floor assemblies between different levels of the same multi-level **dwelling unit**.

Buildings up to 3 storeys

9.5.2.2. (1) **Buildings** shall comply with the requirements of Sentence (2) where the **building** is

- (a) not more than 1 **storey** in **building height** and not greater than 1200 m² in **building area**,
- (b) not more than 2 **storeys** in **building height** and not greater than 900 m² in **building area**, or
- (c) not more than 3 **storeys** in **building height** and not greater than 600 m² in **building area**.

(2) Floor assemblies and walls, columns and arches supporting floor assemblies shall have a **fire-resistance rating** not less than 30 min.

(3) Where sleeping accommodation, recreation rooms, meeting rooms or hobby rooms are not provided in the **basement**, an existing **fire separation** between the **first storey** and **basement** is deemed to be in compliance with Sentence (2) where

- (a) the **basement** is **sprinklered**, or
- (b) the **building** contains not more than four **dwelling units** and provides sleeping accommodation for not more than 10 persons, and
 - (i) interconnected **smoke alarms** are installed in accordance with Article 9.5.4.4.,
 - (ii) doors connecting the **basement** and **first storey** are in compliance with Sentence 9.5.2.8.(4), and
 - (iii) **fire stopping** of the wall space at the **basement** level is in accordance with Article 9.10.15.3. of the **1990 Building Code**.

(4) The water supply for the sprinklers referred to in Clause (3)(a) may be taken from the domestic supply where the supply provides sufficient density for the largest **fire compartment** and where the supply is **approved**.

Deemed compliance

9.5.2.3. (1) **Buildings** are deemed to be in compliance with Sentence 9.5.2.2.(2) where

- (a) the **building** is **sprinklered**, or
- (b) the **building** is 1 **storey** in **building height** and is not greater than 600 m² in **building area**.

Buildings up to 4 storeys

9.5.2.4. (1) **Buildings** to which Sentence 9.5.2.2.(1) does not apply and which are not more than 4 **storeys** in **building height** shall comply with Sentences (2) and (3).

(2) Floor assemblies and walls, columns and arches supporting floor assemblies shall have a **fire-resistance rating** not less than 45 min.

(3) **Smoke detectors** shall be provided as **fire detectors** in **public corridors** serving **dwelling units** in **buildings of combustible construction**.

(4) A **building** that is **sprinklered** is deemed to be in compliance with Sentences (2) and (3).

Buildings over 4 storeys

9.5.2.5. (1) **Buildings** that are more than 4 **storeys** in **building height** shall

- (a) have a **fire-resistance rating** not less than 45 min for floor assemblies and walls, columns and arches supporting floor assemblies, and
- (b) be **sprinklered**, where the **building** is of **combustible construction**.

(2) Where only the roof assembly is of **combustible construction**, the **building** is deemed to be in compliance with Clause (1)(b) where

- (a) the ceiling membrane has a **fire-resistance rating** not less than 45 min and the **attic space** is **fire stopped** in accordance with Article 3.1.11.5. of the **1990 Building Code**,
- (b) the roof assembly is of **heavy timber construction** in accordance with Article 3.1.4.6. of the **1990 Building Code**, or
- (c) the top **storey** and **attic space** are **sprinklered**.

(3) Where **smoke detectors** are provided in **public corridors**, a **building of heavy timber construction** conforming to Article 3.1.4.6. of the **1990 Building Code** is deemed to be in compliance with Sentence (1).

Fire separation between occupancies

9.5.2.6. (1) **Fire separations** having a **fire-resistance rating** not less than 1 h shall be provided between **residential occupancies** and other **major occupancies**.

(2) Existing **fire separations** having a **fire-resistance rating** not less than 30 min are deemed to comply with Sentence (1) if

- (a) the **building** is **sprinklered** and the sprinkler system complies with Article 9.5.5.3., or
- (b) the part of the **building** containing the other **major occupancy** is equipped with **heat detectors** and connecting corridors are equipped with **smoke detectors** as part of the fire alarm system of the **building**.

(3) Existing **fire separations** consisting of membranes of lath and plaster or gypsum board are deemed to be in compliance with Sentence (1).

Fire separations between dwelling units and corridors

9.5.2.7. (1) Each **dwelling unit** and sleeping room not within a **dwelling unit** shall be separated from adjacent rooms and areas by **fire separations** having a **fire-resistance rating** not less than 30 min.

(2) **Public corridors** shall be separated from adjacent rooms and areas by **fire separations** having a **fire-resistance rating** not less than 30 min.

(3) If the **floor area** is **sprinklered**, existing **fire separations** are deemed to comply with Sentences (1) and (2).

Protection of openings in fire separations

9.5.2.8. (1) **Closures in fire separations** shall be in accordance with Sentences 3.1.8.4.(2), 3.1.8.10.(1) and 3.1.8.11.(1) and Article 3.1.8.13. of the **1990 Building Code**.

(2) Openings in a **fire separation** that is required to have a 30 min **fire-resistance rating** shall be protected with **closures** having a 20 min **fire-protection rating**.

(3) If a 45 min **fire-protection rating** is required, existing **closures** are deemed to comply with Sentence (1) if they consist of

- (a) hollow metal or kalamein doors in hollow metal frames, with openings, if any, protected by wired glass, and equipped with self-closing devices, or
- (b) wired glass screens set in fixed steel frames.

(4) Where a 20 min **fire-protection rating** is required, existing **closures** consisting of 45 mm solid core wood doors installed in solid wood or hollow metal frames and equipped with self-closing devices are deemed to be in compliance with Sentences (1) and (2).

(5) Existing **closures in fire separations** to which Article 9.5.2.6. or Article 9.5.2.7. applies are deemed to be in compliance with Sentences (1) and (2) where

- (a) the **floor area** is **sprinklered**, or
- (b) interconnected **smoke alarms** are installed in accordance with Article 9.5.4.4., the **building** has not more than four **dwelling units** and the **building** provides sleeping accommodation for not more than 10 persons.

(6) Despite Sentence (1), **closures in fire separations** to which Article 9.5.2.7. applies do not require self-closing devices, except as required in Sentences 9.5.3.1.(2) and 9.5.3.3.(3).

(7) Existing operable transoms and glass lights shall be fixed shut and shall meet the **fire-protection rating** requirements of Sentences (1) and (2).

(8) Despite Sentences (1) and (2), **fire dampers** or **fire stop flaps** are not required in existing noncombustible ducts at penetrations of **fire separations**.

Storage rooms

9.5.2.9. (1) Storage rooms for the use of occupants, not contained within a **dwelling unit** or **suite**,

- (a) shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 45 min, and
- (b) shall be
 - (i) **sprinklered**, or
 - (ii) subdivided into areas not exceeding 150 m² by **fire separations** having a **fire-resistance rating** not less than 45 min and equipped with **fire detectors** connected to the fire alarm system.

(2) Existing storage rooms are deemed to be in compliance with Clause (1)(b) where the **building**

- (a) contains not more than four **dwelling units**, or
- (b) provides sleeping accommodation for not more than 10 persons.

(3) Existing storage rooms are deemed to be in compliance with Sentence (1) where sleeping rooms are not located on the same floor as the storage rooms and

- (a) the **building** contains not more than four **dwelling units**, or
- (b) provides sleeping accommodation for not more than 10 persons.

Fuel-fired appliance service rooms

9.5.2.10. (1) Fuel-fired **appliances** shall be enclosed in a **service room** separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 45 min if the **building height** is greater than 2 **storeys** or the **building area** is greater than 400 m².

- (2) Sentence (1) does not apply to a fuel-fired **appliance** that serves only one **dwelling unit** or **suite**.
- (3) Despite Sentence (1), the **fire-resistance rating** of the **fire separation** above the **service room** is not required where
- (a) the required vertical **fire separation** to a **service room** is provided, and
 - (b) the **service room** area is **sprinklered**
 - (i) with a spacing not exceeding 9.5 m² per sprinkler head, and
 - (ii) so that the sprinklers provide a minimum average density of 6.5 L/min/m² over the room area.

Combustion air

9.5.2.11. Where a **service room** is separated in accordance with Article 9.5.2.10., sufficient combustion air shall be brought directly from the outside for the proper combustion and safe operation of the **appliances**.

Incinerator and refuse storage rooms

9.5.2.12. (1) Incinerator rooms and **refuse storage rooms** shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 45 min.

- (2) **Refuse storage rooms** shall be **sprinklered**
- (a) with a spacing that does not exceed 9.5 m² per sprinkler, and
 - (b) so that the sprinklers provide a minimum average density of 6.5 L/min/m² over the **refuse storage room** area.

Vertical service spaces

9.5.2.13. (1) **Vertical service spaces** shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** equivalent to that required for the floor assemblies within the **building** in accordance with Articles 9.5.2.2. to 9.5.2.5.

(2) Where openings in the **vertical service space**, including the top and bottom, are sealed with noncombustible materials having the same **fire-resistance rating** as the existing construction, the **vertical service space** is deemed to be in compliance with Sentence (1).

Refuse and linen chutes

9.5.2.14. (1) Each room into which a linen or refuse chute discharges shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 1 h.

- (2) Automatic sprinklers shall be installed in each linen or refuse chute
- (a) at the top,
 - (b) at alternate floor levels, and
 - (c) in the room or bin into which the chute discharges.

(3) Where the room into which the linen or refuse chute discharges is **sprinklered** and at least one sprinkler head is installed at the top of the chute, an existing chute installation is deemed to be in compliance with Sentence (2).

(4) Despite Sentence 9.5.2.1.(1), a **closure** is not required at the opening between a linen or refuse chute and the room into which it discharges.

Storage garages

9.5.2.15. A **storage garage** shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 45 min.

Subsection 9.5.3. Means of Egress

Access to exits

- 9.5.3.1. (1) Each **dwelling unit** or **suite** in a **floor area** shall have a doorway leading to
- (a) the outside at or near **grade**,
 - (b) an outside passageway where it is possible to go in opposite directions to separate **exits**, or
 - (c) a **public corridor** where it is possible to go in opposite directions to separate **exits**.
- (2) **Access to exits** through a dead end **public corridor** is deemed to be in compliance with Clause (1)(c) where
- (a) the distance along the dead end does not exceed 6 m plus the width of the corridor, measured from any door along the corridor to a point where a choice of two directions of **exit** travel is available, and
 - (b) self-closing devices are provided on **suite** entrance doors opening onto the dead end portion of the corridor.
- (3) **Access to exits** through a dead end corridor in boarding, lodging or rooming accommodation is deemed to be in compliance with Clause (1)(c) where
- (a) the **building** is not more than 3 **storeys** in **building height**,
 - (b) sleeping accommodation is provided for not more than 10 persons,
 - (c) not more than two persons require assistance to evacuate the **building** in a fire emergency,
 - (d) **smoke alarms** are installed in the **means of egress** in accordance with Sentence 9.5.4.1.(2), and
 - (e) the building complies with the requirements of Section 2.8.
- (4) Existing dead end **public corridors** are deemed to be in compliance with Clause (2)(a) where additional fire protection measures are **approved** that, in the opinion of the **Chief Fire Official**, will provide protection for life safety similar to the protection provided by compliance with Clause (2)(a).
- (5) Despite Sentence (1), if a **dwelling unit** or **suite** has access to a second and separate **exit** or the **building** complies with Sentence 9.5.3.2.(2) or (3), a doorway from the **dwelling unit** or **suite** may open onto
- (a) an **exit** stairway,
 - (b) a fire escape,
 - (c) a **public corridor** served by a single **exit**, or
 - (d) an outside passageway served by a single **exit** stairway.

Number of exits

- 9.5.3.2. (1) Each **floor area** shall be served by a minimum of two **exits**.
- (2) A single **exit** from a **basement**, first or second floor is deemed to be in compliance with Sentence (1) where the **building** is not more than 3 **storeys** in **building height** and is not greater than 600 m² in **building area** and
- (a) the **exit** does not serve more than four dwelling units, or
 - (b) the **exit** does not serve more than 10 persons.
- (3) Where a **building** is not more than 3 **storeys** in **building height** and not greater than 600 m² in **building area**, alternative measures to Sentence (1) may be used if they are **approved**, and in the opinion of the **Chief Fire Official**, will provide protection for life safety similar to the protection provided by compliance with Sentence (1).

Stairway separations

- 9.5.3.3. (1) Each **exit** stairway shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 45 min.

(2) If the **building** is 3 **storeys** or less in **building height**, a **fire separation** having a **fire-resistance rating** not less than 30 min is deemed to comply with Sentence (1).

(3) **Closures** in stairway **fire separations** referred to in Sentences (1) and (2) shall be equipped with self-closing devices.

Door swing

9.5.3.4. Where the **occupant load** in a **building** exceeds 24 persons or there are more than 10 **dwelling units**, each **exit** door, except those serving a single **dwelling unit**, shall open in the direction of **exit** travel and swing on its vertical axis.

Exit signs

9.5.3.5. (1) Each **exit** door, except for the main entrance to a **building**, **dwelling unit** or **suite**, shall have an **exit** sign when the **exit** serves

- (a) a **building** exceeding 2 **storeys** in **building height**,
- (b) a **building** having an **occupant load** greater than 150 persons, or
- (c) a **floor area** other than a single **dwelling unit** with a fire escape as part of a **means of egress**.

(2) Where **exit** signs are not visible throughout the corridors and passageways, additional **exit** signs shall be installed in **approved** locations to indicate the direction of egress.

(3) **Exit** signs required in Sentences (1) and (2) shall have

- (a) the word “EXIT” or the words “EXIT/SORTIE” in red letters on a contrasting background or white letters on a red background,
- (b) letters with strokes at least 19 mm wide,
- (c) letters at least 150 mm high when the signs are externally illuminated, and
- (d) letters at least 114 mm high when the signs are internally illuminated.

Interior finishes

9.5.3.6. (1) **Flame-spread ratings** of interior wall and ceiling finishes within a **means of egress** shall not exceed 150.

(2) Despite Sentence (1), existing interior wall and ceiling finishes within an **access to exit** may be **approved** if, in the opinion of the **Chief Fire Official**, they will provide protection for life safety similar to the protection provided by compliance with Sentence (1).

Fire escapes

9.5.3.7. (1) Each fire escape used as an **exit** shall comply with Articles 3.4.7.2., 3.4.7.3., 3.4.7.5. and 3.4.7.6. of the **1990 Building Code**.

(2) If a fire escape serves any **storey** above the second floor, doorway openings and window openings shall be protected in accordance with Sentences (3) and (4) if located

- (a) within 3 m horizontally of any balcony, platform or stairway of the fire escape,
- (b) within 3 **storeys** below or 10 m below any balcony, platform or stairway of the fire escape, or
- (c) within 1.8 m above any balcony, platform or stairway of the fire escape.

(3) Doorway openings referred to in Sentence (2) shall be protected with **closures** having a **fire-protection rating** not less than 20 min and equipped with self-closing devices.

(4) Window openings referred to in Sentence (2) shall be protected with

- (a) **closures** having a **fire-protection rating** not less than 20 min and that are fixed shut or arranged to close automatically upon the operation of a fusible link,
- (b) wired glass screens set in fixed steel frames,
- (c) glass block, or

(d) **listed** steel shutters arranged to close automatically upon the operation of a fusible link.

(5) The fusible link referred to in Clauses (4)(a) and (d) shall comply with ULC-S505, “Standard for Fusible Links for Fire Protection Service”.

(6) The wired glass screens and glass block referred to in Clauses (4)(b) and (c) shall be installed in accordance with Article 3.1.8.14. of the **1990 Building Code**.

Lighting

9.5.3.8. **Public corridors** and stairways that form part of a **means of egress** shall be adequately illuminated to allow for the safe evacuation of occupants.

Emergency lighting

9.5.3.9. (1) Emergency lighting shall be provided in **exit** stairways, **public corridors** and other principal **access to exits** where the **occupant load** in a **building** exceeds 24 persons or there are more than 10 **dwelling units**.

(2) Emergency lighting required in Sentence (1) shall be

- (a) designed to provide illumination for a duration of at least 30 min,
- (b) supplied by a source of energy separate from the primary electrical supply for the **building**, and
- (c) designed to be automatically actuated when the power to the **building** is interrupted.

(3) Illumination from emergency lighting shall be an average of at least 10 lx at floor or tread level, or 1 watt/m² of floor space.

Subsection 9.5.4. Fire Alarm and Detection

Fire alarm requirements

9.5.4.1. (1) A fire alarm system shall be installed in accordance with Articles 3.2.4.2. to 3.2.4.6., 3.2.4.8., 3.2.4.9. and 3.2.4.17. and Sentences 3.2.7.8.(1) to (4) of the **1990 Building Code**, where

- (a) the **building** is greater than 3 **storeys** in **building height**, or
- (b) sleeping accommodation is provided for more than 10 persons.

(2) A **building** not greater than 3 **storeys** in **building height** that contains not more than 10 **dwelling units** and provides sleeping accommodation for not more than 24 persons is deemed to be in compliance with Sentence (1) where the **building** is equipped with

- (a) **smoke alarms** in accordance with Article 9.5.4.4., installed and interconnected so that the actuation of any **smoke alarm** will sound a similar signal in each of the interconnected devices, and
- (b) a manual pull station at each exterior **exit** door for the actuation of the **smoke alarms** in Clause (a).

(3) A **building** is deemed to be in compliance with Sentence (1) where

- (a) each **exit** and **public corridor** is shared by not more than four **dwelling units** or not more than 10 persons in boarding, lodging, rooming or dormitory accommodation, or
- (b) each **dwelling unit** and **suite** has direct access to outdoors by a door near ground level.

Non-electric fire alarm systems

9.5.4.2. (1) Existing manually operated, non-electric alarm systems employing mechanical gongs are deemed to be in compliance with Sentence 9.5.4.1.(1), where

- (a) the **building** is not more than 2 **storeys** in **building height**,
- (b) not more than two manual fire alarm stations are required in the **building**, and
- (c) each gong is audible in every location in the **building**.

Automatic detection

9.5.4.3. (1) Automatic detection devices referred to in Sentences (2) and (3) shall be installed and connected to the fire alarm system required in Sentence 9.5.4.1.(1).

(2) **Fire detectors** shall be installed in storage rooms, locker rooms, **service rooms**, machinery rooms, heating rooms, incinerator rooms, linen and refuse chute intake compartments, janitors' closets and **refuse storage rooms**, at the tops of elevator shafts and **exit** stair shafts and in any room or area where hazardous or combustible materials may be used or stored.

(3) Rooms or areas that are **sprinklered** in accordance with Article 3.2.4.16. of the **1990 Building Code** are deemed to be in compliance with Sentence (2).

Interconnected smoke alarms

9.5.4.4. (1) Interconnected **smoke alarms** required in Sentence 9.5.4.1.(2), Subclause 9.5.2.2.(3)(b)(i) or Clause 9.5.2.8.(5)(b) shall be

- (a) installed on or near the ceiling in **public corridors** of each **floor area**, adjacent to each stairway serving the **public corridor** and on or near the ceiling in the **basement**, adjacent to each stairway,
- (b) audible throughout the **suites**,
- (c) connected to an electrical circuit with no disconnect switch between the overcurrent device and the **smoke alarms**, and
- (d) **listed** for use in an interconnected installation.

Smoke alarms

9.5.4.5. (1) **Smoke alarms** shall be installed in each **dwelling unit** and in each sleeping room not within a **dwelling unit** in accordance with Article 3.2.4.21. of the **1990 Building Code**.

(2) Battery-operated **smoke alarms** are deemed to be in compliance with Sentence 3.2.4.21.(4) of the **1990 Building Code**.

- (3) **Smoke alarms** shall meet the requirements of
 - (a) CAN/ULC-S531, "Standard for Smoke Alarms", and
 - (b) CAN/ULC-S553, "Standard for the Installation of Smoke-Alarms".

Existing fire alarm systems

9.5.4.6. Despite Articles 9.5.4.1. to 9.5.4.4., where the performance and reliability of an existing fire alarm system will provide an adequate early warning level, the existing system may remain, be modified or be extended, if compatibility of the components is maintained and the system is **approved**.

Subsection 9.5.5. Suppression

Access for fire fighting

9.5.5.1. (1) Access routes for fire fighting shall be provided in accordance with the requirements of Articles 3.2.5.5. to 3.2.5.7. of the **1990 Building Code**.

- (2) Sentence (1) does not apply where the **building** is **sprinklered**.

Standpipe systems

9.5.5.2. (1) A standpipe and hose system in accordance with Articles 3.2.9.1. to 3.2.9.7. of the **1990 Building Code** shall be installed in **buildings** more than 4 **storeys** in **building height** where the fifth or sixth **storey** is used for a **residential occupancy**.

- (2) A wet or dry standpipe system is deemed to be in compliance with Sentence (1) where it includes
 - (a) a 50 mm riser and 50 mm extensions,

- (b) capped 38 mm hose valves located so that any point on the **floor area** may be reached by 30 m of hose plus 3 m of hose stream from at least one hose valve,
- (c) a **fire department** connection in accordance with Sentences 3.2.9.5.(2) to (9) of the **1990 Building Code**, and
- (d) a water supply in accordance with Sentences 3.2.9.3.(1) to (3) of the **1990 Building Code**.

(3) Despite Sentences (1) and (2), existing standpipe systems and water supplies may be used if the systems or measures will provide sufficient fire suppression capability in the circumstances and if the systems or measures are **approved**.

Sprinkler systems

9.5.5.3. (1) Where a **building** or portion thereof is required to be **sprinklered**, the sprinkler system shall be designed and constructed in accordance with Articles 3.2.5.13. to 3.2.5.16. of the **1990 Building Code**.

(2) Existing sprinkler systems are deemed to be in compliance with Sentence (1) if the average sprinkler discharge density over the design area is at least equal to the minimum density corresponding to the area for light hazard classification as defined in NFPA 13, “Standard for the Installation of Sprinkler Systems”, or NFPA 13R, “Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height”, whichever is applicable.

(3) Despite Sentences (1) and (2), existing sprinkler systems providing adequate protection that will control or extinguish fire and that are **approved** may be used.

SECTION 9.6 BUILDINGS HIGHER THAN 6 STOREYS IN BUILDING HEIGHT WITH RESIDENTIAL OCCUPANCIES

Subsection 9.6.1. Application and General

Application

9.6.1.1. (1) This Section applies to **buildings** higher than 6 **storeys** in **building height** with **residential occupancies** and containing

- (a) more than two **dwelling units**,
- (b) sleeping accommodation for more than 10 persons in one or more dormitories, or
- (c) boarding, lodging or rooming accommodation for more than 10 persons.

(2) Despite Sentence (1), if a **building** containing a **residential occupancy** that is governed by this Section contains, in addition to its **residential occupancies**, one or more other **occupancies** that are not governed by this Part, this Section does not apply to the fire safety systems, devices or structural elements of any of the other **occupancies** that do not affect the life safety of the **residential occupancy**.

(3) If a **building** that is governed by this Section contains, in addition to its **residential occupancies**, one or more other **occupancies** that are governed by other Sections of this Part, the fire safety systems, devices and structural elements of all of the **occupancies** governed by this Part shall comply with the requirements of this Part that provide the greatest protection for life safety.

Exemption for convents, monasteries and hotels

9.6.1.2. (1) This Section does not apply to convents and monasteries.

(2) This Section does not apply to a **building** or part of a **building** regulated under Section 9.9.

Definitions

9.6.1.3. For the purposes of this Section,

“1990 Building Code” means Ontario Regulation 413/90, as it read on October 9, 1992;

“existing” means in existence on October 9, 1992.

Subsection 9.6.2. Containment

Construction

9.6.2.1. (1) **Fire separations** required under this Section to have a **fire-resistance rating** shall comply with Subsection 3.1.7. and Articles 3.1.8.1., 3.1.8.3., and 3.5.4.2. of the **1990 Building Code**.

(2) If a **fire-resistance rating** of 1 h or less is required, existing wall assemblies, floor assemblies and their supporting assemblies are deemed to comply with Sentence (1) if they consist of

- (a) reinforced concrete,
- (b) masonry,
- (c) clay tile with plaster or gypsum board finish on both sides, or
- (d) membranes of lath and plaster or gypsum board.

Floor assemblies

9.6.2.2. (1) Floor assemblies shall be **fire separations** having a **fire-resistance rating** not less than 1 h.

(2) Walls, columns and arches supporting floor assemblies shall have a **fire-resistance rating** not less than 1 h.

(3) Sentences (1) and (2) do not apply to floor assemblies between different levels of the same multi-level dwelling unit.

Combustible construction

9.6.2.3. (1) **Buildings** of **combustible construction** shall be **sprinklered**.

(2) Where only the roof assembly is of **combustible construction**, the **building** is deemed to be in compliance with Sentence (1) where

- (a) the ceiling membrane has a **fire-resistance rating** not less than 45 min and the **attic space** is **fire stopped** in accordance with Article 3.1.11.5. of the **1990 Building Code**,
- (b) the roof assembly is of **heavy timber construction** in accordance with Article 3.1.4.6. of the **1990 Building Code**, or
- (c) the top **storey** and **attic space** are **sprinklered**.

Fire separations between occupancies

9.6.2.4. (1) **Fire separations** having a **fire-resistance rating** not less than 1 h shall be provided between **residential occupancies** and other **major occupancies**.

(2) Existing **fire separations** having a **fire-resistance rating** not less than 30 min are deemed to comply with Sentence (1) if the other **major occupancy** is **sprinklered**.

Fire separations between dwelling units and corridors

9.6.2.5. (1) Each **dwelling unit** and sleeping room not within a **dwelling unit** shall be separated from adjacent rooms and areas by a **fire separation** having a **fire-resistance rating** not less than 45 min.

(2) **Public corridors** shall be separated from adjacent rooms and areas by a **fire separation** having a **fire-resistance rating** not less than 45 min.

(3) Existing **fire separations** having less than a 45 min **fire-resistance rating** are deemed to be in compliance with Sentences (1) and (2) where the **floor area** is **sprinklered**.

(4) Existing **fire separations** having a **fire-resistance rating** not less than 30 min are deemed to comply with Sentences (1) and (2) if **smoke detectors** are installed in **public corridors**.

Protection of openings in fire separations

9.6.2.6. (1) **Closures** in **fire separations** shall be in accordance with Sentences 3.1.8.4.(2), 3.1.8.10.(1) and 3.1.8.11.(1) and Articles 3.1.8.13. and 3.3.4.5. of the **1990 Building Code**.

(2) Openings in **fire separations** required to have a 30 min **fire-resistance rating** shall be protected with **closures** having a 20 min **fire-protection rating**.

(3) Where a 1.5 h **fire-protection rating** is required, existing **closures** consisting of hollow metal or kalamein doors in hollow metal frames, with openings, if any, protected by wired glass panels not exceeding 645 cm², and equipped with self-closing and latching devices are deemed to be in compliance with Sentence (1).

(4) Where a 1 h or 45 min **fire-protection rating** is required, existing **closures** are deemed to be in compliance with Sentence (1) where they consist of

- (a) hollow metal or kalamein doors in hollow metal frames, with openings, if any, protected by wired glass, and equipped with self-closing and latching devices, or
- (b) wired glass screens set in fixed steel frames.

(5) Where a 20 min **fire-protection rating** is required, or in a **fire separation** required under Article 9.6.2.5., existing **closures** consisting of 45 mm solid core wood doors installed in solid wood or hollow metal frames and equipped with self-closing and latching devices are deemed to be in compliance with Sentences (1) and (2).

(6) Where the **floor area** is **sprinklered**, existing **closures** in **fire separations** to which Article 9.6.2.5. applies are deemed to be in compliance with Sentence (2) and Sentences 3.1.8.4.(2) and 3.1.8.10.(1) of the **1990 Building Code**.

(7) Despite Sentence (1), garbage intake room doors that swing inward shall be acceptable without a latching device.

(8) Existing operable transoms and glass lights shall be fixed shut and shall meet the **fire-protection rating** requirements of Sentences (1) and (2).

(9) Despite Sentences (1) and (2), **fire dampers** or **fire stop flaps** are not required in existing noncombustible ducts at penetrations of **fire separations**.

Storage rooms

9.6.2.7. (1) Storage rooms for the use of occupants, not contained within a **dwelling unit** or **suite**, shall be

- (a) separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 1 h, and
- (b) **sprinklered** in accordance with Article 9.6.5.5.

(2) Despite Clause (1)(b), existing sprinkler systems or alternate fire protection systems that will control or extinguish fire and that are **approved** may be used.

Fuel-fired appliance service rooms

9.6.2.8. (1) Fuel-fired **appliances** shall be enclosed in a **service room** separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 1 h.

(2) Sentence (1) does not apply to fuel-fired **appliances** that serve only one **dwelling unit** or **suite**.

Incinerator rooms

9.6.2.9. (1) Incinerator rooms shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 2 h.

(2) A **fire separation** having a **fire-resistance rating** not less than 1 h is deemed to comply with Sentence (1) if the incinerator room is **sprinklered**.

Combustion air

9.6.2.10. Where a **service room** is separated in accordance with Article 9.6.2.8., sufficient combustion air shall be brought directly from the outside for the proper combustion and safe operation of the **appliances**.

Refuse storage rooms

9.6.2.11. (1) **Refuse storage rooms** shall be

- (a) separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 1 h, and
- (b) **sprinklered** to provide a minimum average density of 6.5 L/m² over the room area.

Vertical service spaces

9.6.2.12. (1) **Vertical service spaces** shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 45 min.

(2) Where openings in the **vertical service space**, including the top and bottom, are sealed with noncombustible materials having the same **fire-resistance rating** as the existing construction, the **vertical service space** is deemed to be in compliance with Sentence (1).

Refuse and linen chutes

9.6.2.13. (1) Each room into which a linen or refuse chute discharges shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 1 h.

- (2) Automatic sprinklers shall be installed in each linen or refuse chute
 - (a) at the top,
 - (b) at alternate floor levels, and
 - (c) in the room or bin into which the chute discharges.
- (3) An existing chute installation is deemed to be in compliance with Sentence (2) where
 - (a) the chute outlet in the discharge room is protected by an automatic, self-latching closure held open by a fusible link,
 - (b) the room into which the chute discharges is **sprinklered**, and
 - (c) at least one sprinkler head with a minimum discharge rate of 66 L/min is located at the top of the chute.

Transformer vaults

9.6.2.14. Transformer vaults to which the **Electricity Act, 1998** applies shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 2 h and shall be provided with **heat detectors** connected to the fire alarm system.

Storage garages

9.6.2.15. (1) A **storage garage** shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 1.5 h.

(2) Underground **storage garages** shall be **sprinklered**.

(3) Sentence (2) does not apply to an underground **storage garage** that is equipped with **heat detectors** connected to the fire alarm system and that has vestibules located at points of access to the **residential occupancy**.

Smoke control measures

9.6.2.16. (1) **Buildings** where the vertical distance between the floor of the top **storey** and **grade** exceeds 18 m shall have smoke control measures in accordance with Article 3.2.6.2. of the **1990 Building Code**.

- (2) **Buildings** are deemed to be in compliance with Sentence (1) where
 - (a) all **dwelling units** have access to an exterior balcony,
 - (b) the length of **public corridors** does not exceed 30 m between **exits**,
 - (c) **public corridors** on each **floor area** are equipped with **smoke detectors** connected to the fire alarm system,
 - (d) **public corridors** on each **floor area** are subdivided in accordance with Sentence (3), or
 - (e) the **building** is fully **sprinklered**.
- (3) The **public corridor** subdivision referred to in Clause (2)(d) shall
 - (a) separate the corridor into at least two compartments by a **fire separation**,
 - (b) be located so that no more than one of the required **exit** stairs is located in any one compartment and the distance of travel from any **suite** entrance door to an **exit** or adjacent compartment does not exceed 25 m, and
 - (c) include smoke-tight doors equipped with self-closing devices that act as **closures** in the **fire separation**.

Subsection 9.6.3. Means of Egress

Access to exits

- 9.6.3.1. (1) Each **dwelling unit** or **suite** in a **floor area** shall have a doorway leading to
 - (a) the outside at or near **grade**,
 - (b) an outside passageway where it is possible to go in opposite directions to separate **exits**, or
 - (c) a **public corridor** where it is possible to go in opposite directions to separate **exits**.
- (2) **Access to exits** through a dead end **public corridor** is deemed to be in compliance with Clause (1)(c) where the distance of travel, measured from any door along the corridor to a point where a choice of two directions of **exit** travel is available, does not exceed 6 m plus the width of the corridor.
- (3) Existing dead end **public corridors** are deemed to be in compliance with Sentence (2) where additional fire protection measures are **approved** that, in the opinion of the **Chief Fire Official**, will provide protection for life safety similar to the protection provided by compliance with Sentence (2).
- (4) Despite Sentence (1), if a **dwelling unit** or **suite** has access to a second and separate **exit**, a doorway from the **dwelling unit** or **suite** may open onto
 - (a) an **exit** stairway,
 - (b) a **public corridor** served by a single **exit**, or
 - (c) an outside passageway served by a single **exit** stairway.

Number of exits

- 9.6.3.2. (1) Each **floor area** shall be served by a minimum of two **exits**.
- (2) The minimum distance between **exits** shall be 9 m or half the maximum diagonal dimension of the **floor area**, whichever is less.

Travel distance

- 9.6.3.3. (1) The **travel distance** to at least one **exit** shall not exceed
- (a) 30 m in a **floor area** that is not **sprinklered**, or
 - (b) 45 m in a **sprinklered floor area**.

Stairway separations

9.6.3.4. (1) Each **exit** stairway shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 1h.

- (2) **Closures** in stairway **fire separations** shall be in accordance with Article 9.6.2.6.

Door swing

9.6.3.5. Each **exit** door, except those serving a single **dwelling unit**, shall open in the direction of **exit** travel and swing on its vertical axis.

Exit signs

- 9.6.3.6. (1) **Exit** signs shall be installed in accordance with Subsection 3.4.5. of the **1990 Building Code**.

(2) Each door opening into an **exit** stairway from a **public corridor** shall be identified on the stairway side with the number assigned to that floor in accordance with Article 3.4.6.17. of the **1990 Building Code**.

Interior finishes

9.6.3.7. (1) **Flame-spread ratings** of interior wall and ceiling finishes within a **means of egress** shall be in accordance with Article 3.1.13.7. of the **1990 Building Code**.

(2) Despite Sentence (1), existing interior wall and ceiling finishes within an **access to exit** may be **approved** if, in the opinion of the **Chief Fire Official**, they will provide protection for life safety similar to the protection provided by compliance with Sentence (1).

Lighting

9.6.3.8. **Public corridors** and stairways that form part of a **means of egress** shall be adequately illuminated to allow for the safe evacuation of occupants.

Emergency lighting

9.6.3.9. (1) Emergency lighting shall be provided in **exit** stairways, **public corridors** and other principal **access to exits**.

- (2) Emergency lighting required in Sentence (1) shall be
- (a) designed to provide illumination for a duration of at least
 - (i) 2 h in **buildings** whose highest floor level is more than 18 m above **grade**, and
 - (ii) 30 min in **buildings** whose highest floor level is not more than 18 m above **grade**,
 - (b) supplied by a source of energy separate from the primary electrical supply for the **building**, and
 - (c) designed to be automatically actuated when the power to the **building** is interrupted.

(3) Illumination from emergency lighting shall be an average of at least 10 lx at floor or tread level, or 1 watt/m² of floor space.

Subsection 9.6.4. Fire Alarm and Detection*Fire alarm requirements*

9.6.4.1. (1) A fire alarm and detection system shall be installed in each **building** in accordance with Articles 3.2.4.1. to 3.2.4.14., 3.2.4.16. to 3.2.4.20., 3.2.4.22. and 3.2.7.8. of the **1990 Building Code**.

- (2) An existing fire alarm system is deemed to be in compliance with Sentence (1) where the system
 - (a) complies with Articles 9.6.4.2. to 9.6.4.9., and
 - (b) operates in accordance with Article 3.2.4.4. of the **1990 Building Code**.

Automatic detection

9.6.4.2. (1) Automatic detection devices referred to in Sentences (2) and (3) shall be installed and connected to the fire alarm system required in Sentence 9.6.4.1.(2).

(2) **Fire detectors** shall be installed in storage rooms, locker rooms, **service rooms**, machinery rooms, heating rooms, incinerator rooms, linen and refuse chute intake compartments, janitors' closets and **refuse storage rooms**, at the tops of elevator shafts and **exit** stair shafts and in any room or area where hazardous or combustible materials may be used or stored.

(3) Rooms or areas that are **sprinklered** in accordance with Article 3.2.4.16. of the **1990 Building Code** are deemed to be in compliance with Sentence (2).

Manual pull stations

9.6.4.3. Manual pull stations shall be provided in accordance with Article 3.2.4.17. of the **1990 Building Code**.

Electrical supervision

9.6.4.4. (1) The fire alarm system shall be electrically supervised.

(2) Despite Sentence (1), electrical supervision of the bell circuits is not required where bells operate on more than one circuit on each floor.

Annunciator panels

9.6.4.5. (1) An annunciator panel shall

- (a) be located at the main **street** entrance to the **building** or a location that is accessible to the **fire department** and that is **approved**, and
- (b) indicate all floors with not more than one floor per zone indicated.

(2) Despite Clause (1)(b), existing annunciator zone indication that is compatible with the fire safety plan required under Subsection 2.8.2. and that is **approved** may be used.

Signals to the fire department

9.6.4.6. Fire alarm systems in **buildings** where the vertical distance between the floor of the top **storey** and **grade** exceeds 18 m shall have provision for notifying the **fire department** in accordance with Sentences 3.2.4.7.(1) to (4) of the **1990 Building Code** that a fire **alarm signal** or **alert signal** has been initiated.

Voice communication systems

9.6.4.7. (1) A voice communication system shall be provided where the vertical distance between the floor of the top **storey** and **grade** exceeds 36 m.

(2) The voice communication system required by Sentence (1) shall

- (a) consist of loudspeakers operated from the central alarm and control facility or other location that is accessible to the **fire department** and **supervisory staff** required under Subsection 2.8.2. and that is **approved**,
- (b) provide a clear verbal signal throughout the **building**, except for within elevator cars, and
- (c) provide for automatic silencing of the fire alarm devices when the loudspeakers are in use.

(3) **Approved** existing public address systems compatible with the fire safety plan required under Subsection 2.8.2. and capable of communicating instructions to the **building** occupants are deemed to be in compliance with Sentences (1) and (2).

Emergency power

9.6.4.8. Fire alarm and voice communication systems shall be provided with an electrically supervised emergency power supply in accordance with Article 3.2.7.8. of the **1990 Building Code**.

Shutdown of air handling systems

9.6.4.9. Recirculating air handling systems that serve more than one **dwelling unit, suite** or **storey** shall be equipped with a duct-type **smoke detector** that will automatically shut down the system upon actuation of the **smoke detector**.

Smoke alarms

9.6.4.10. (1) **Smoke alarms** shall be installed in each **dwelling unit** and in each sleeping room not within a **dwelling unit** in accordance with Article 3.2.4.21. of the **1990 Building Code**.

(2) Battery-operated **smoke alarms** are deemed to be in compliance with Sentence 3.2.4.21.(4) of the **1990 Building Code**.

- (3) **Smoke alarms** shall meet the requirements of
 - (a) CAN/ULC-S531, “Standard for Smoke Alarms”, and
 - (b) CAN/ULC-S553, “Standard for the Installation of Smoke-Alarms”.

Subsection 9.6.5. Suppression

Access for fire fighting

9.6.5.1. (1) Access routes for fire fighting shall be provided in accordance with Articles 3.2.5.5. to 3.2.5.7. of the **1990 Building Code**.

- (2) Sentence (1) does not apply where the **building** is **sprinklered**.

Standpipe systems

9.6.5.2. (1) A standpipe and hose system in accordance with Subsection 3.2.9. of the **1990 Building Code** shall be installed in each **building**.

(2) A wet or dry standpipe system is deemed to be in compliance with Sentence (1) where the system includes

- (a) a minimum 150 mm diameter riser located in each stairwell, with 38 mm and 65 mm capped fire hose valves at each **storey**,
- (b) capped 38 mm fire hose valves located in the **public corridor** so that any point on a **floor area** may be reached by 30 m of hose plus 3 m of hose stream from at least one hose valve,
- (c) flow rates as required by Clauses 3.2.9.3.(4)(b) and (c) of the **1990 Building Code** for **buildings** less than 84 m in height, measured between **grade** and the ceiling level of the top **storey**,
- (d) flow rates as required by Clause 3.2.9.3.(5)(b) of the **1990 Building Code** for **buildings** 84 m or more in height, measured between **grade** and the ceiling level of the top **storey**, and
- (e) a water supply in accordance with Sentences 3.2.9.3.(1) and (2) of the **1990 Building Code**.

(3) An existing standpipe and hose system capable of delivering a minimum flow rate of 265 L/min for at least 30 min at a minimum discharge pressure of 345 kPa (gauge) at the two highest and most remote hose valves is deemed to be in compliance with Clauses (2) (a), (c), (d) and (e) if not less than 132 L/min can be supplied from each of the two outlets simultaneously.

(4) Emergency power shall be provided for a standpipe system that is designed with at least one pressure zone located above another, such that the water supply for the booster pump in the upper zone must be supplied from the pump in the zone below.

Fire department connections

9.6.5.3. (1) A **fire department** connection in accordance with Sentences 3.2.9.5.(2) to (9) of the **1990 Building Code** shall be provided.

(2) Despite Sentence (1), a **fire department** connection is not required where a booster pump equipped with emergency power is provided.

(3) Despite Sentence (1), existing **fire department** connections that are visible and accessible to the **fire department** and that are **approved** may be used.

Hydrants

9.6.5.4. (1) Hydrants shall be located within 90 m of the **building** face on which the principal entrance is located.

(2) A hydrant located within 45 m of a **fire department** connection, as required by Sentence 9.6.5.3.(1), is deemed to be in compliance with Sentence (1).

(3) Despite Sentence (1), existing hydrant locations that provide sufficient fire suppression capability in the circumstances and that are **approved** may be used.

Sprinkler systems

9.6.5.5. (1) Where a **building** or portion thereof is required to be **sprinklered**, the sprinkler system shall be designed and constructed in accordance with Articles 3.2.5.13. to 3.2.5.16. of the **1990 Building Code**.

(2) Existing sprinkler systems in which the average sprinkler discharge density over the design area is at least equal to the minimum density corresponding to the area for light hazard classification as defined in NFPA 13, “Standard for the Installation of Sprinkler Systems”, are deemed to be in compliance with Sentence (1).

Firefighters’ elevators

9.6.5.6. (1) At least one elevator shall be provided for use by firefighters in accordance with Articles 3.2.6.8. and 3.2.6.9. of the **1990 Building Code** in **buildings** where the vertical distance between the floor of the top **storey** and **grade** exceeds 18 m.

(2) An elevator is deemed to be in compliance with Sentence (1) where

- (a) the elevator is capable of providing transportation from the **street** floor to every floor served by the elevator system,
- (b) the elevator is identified on the **street** floor as an elevator provided for use by firefighters,
- (c) the elevator satisfies the requirements of Sentences 3.2.6.8.(1) to (4) of the **1990 Building Code**, and
- (d) other elevator cabs in the same shaft as the elevator for use by firefighters satisfy the requirements of Sentences 3.2.6.8.(1) and (2) of the **1990 Building Code**.

(3) An elevator system that requires transfer from one elevator to another to reach all floors above **grade** is deemed to be in compliance with Sentence (1) where

- (a) the elevators are identified on the **street** floor and the transfer floor as elevators provided for firefighters’ use,
- (b) the elevators satisfy the requirements of Sentences 3.2.6.8.(1) to (4) of the **1990 Building Code**,
- (c) emergency power is provided capable of operating one elevator car at a time, in **buildings** where the vertical distance between the floor of the top **storey** and **grade** exceeds 36 m, and

- (d) other elevator cabs in the same shaft as the elevator for use by firefighters satisfy the requirements of Sentences 3.2.6.8.(1) and (2) of the **1990 Building Code**.

Emergency power supply

9.6.5.7. (1) Emergency electric power shall be provided in accordance with Articles 3.2.7.5. and 3.2.7.8. of the **1990 Building Code** if the power is provided for

- (a) fire alarm and detection systems referred to in Sentence 9.6.4.1.(1) and Article 9.6.4.8.,
- (b) booster pumps serving standpipe systems referred to in Sentences 9.6.5.2.(4) and 9.6.5.3.(2), and
- (c) elevators referred to in Clause 9.6.5.6.(3)(c).

(2) Despite Sentence (1), existing emergency electric power generators that will provide reliable and sufficient electric power and that are **approved** may be used.

SECTION 9.7 BUILDINGS WITH A CARE OCCUPANCY OR RETIREMENT HOME

Subsection 9.7.1. Application and General

Application

- 9.7.1.1. (1) This Section applies to **buildings** containing a **care occupancy** or **retirement home**.
- (2) Despite Sentence (1), this Section does not apply to a **building** or part of a **building** that is a home or hospital regulated by Section 9.4.
- (3) Despite Sentence (1), if a **building** containing a **care occupancy** or **retirement home** also contains one or more other **occupancies** that are not governed by this Part, this Section does not apply to the fire safety systems, devices and structural elements of any of the other **occupancies** that do not affect the life safety of the **care occupancy** or **retirement home**.

Conflict

- 9.7.1.2. (1) In the event of a conflict between this Section and any other Section of this Part that applies to a **care occupancy** or **retirement home**, this Section prevails.
- (2) If a **building** containing a **care occupancy** or **retirement home** also contains one or more other **occupancies** that are governed by other Sections of this Part, the fire safety systems, devices and structural elements of all the **occupancies** governed by this Part shall comply with the requirements that provide the greatest protection for life safety.

Additional requirements

- 9.7.1.3. (1) In addition to the requirements of this Section,
- (a) a **building** not greater than 6 **storeys** in **building height** shall comply with Subsections 9.5.2. to 9.5.5., and
 - (b) a **building** greater than 6 **storeys** in **building height** shall comply with Subsections 9.6.2. to 9.6.5.
- (2) Clause (1) (a) does not apply to a **building** not greater than 3 **storeys** in **building height** that provides sleeping accommodation for not more than four persons.

Definitions

- 9.7.1.4. For the purposes of this Section,

“1990 Building Code” means Ontario Regulation 413/90, as it read on October 9, 1992;

“existing” means in existence on January 1, 2014.

Subsection 9.7.2. Containment

Self-closing devices

9.7.2.1. (1) Doors opening onto corridors that are **access to exits** and that serve resident **suites**, and resident sleeping rooms not within **suites**, in **care occupancies** and **retirement homes** shall be equipped with self-closing devices.

- (2) Sentence (1) does not apply
 - (a) in **buildings 3 storeys** or less in **building height** that provide sleeping accommodation for 10 or fewer persons, and
 - (b) in **buildings** where all of the **corridors** referred to in Sentence (1) are subdivided in accordance with Sentence (3).
- (3) The corridor subdivision referred to in Clause (2)(b) shall
 - (a) subdivide the corridor into at least two zones using **fire separations** that contain smoke-tight doors equipped with self-closing devices that act as **closures**,
 - (b) be arranged so that each subdivided corridor zone is able to accommodate, in addition to its own occupants, the occupants from any single adjacent zone, based on the requirements of 1.6 m² per person, unless otherwise **approved**, and
 - (c) be arranged so that the travel distance from any point in a subdivided corridor zone to an adjacent zone is no more than 15 m.

Subsection 9.7.3. Means of Egress

Emergency lighting

9.7.3.1. (1) Emergency lighting shall be provided in **exit** stairways, **public corridors** and other principal **access to exits**.

- (2) The emergency lighting shall be
 - (a) designed to provide illumination for a duration of at least 30 min,
 - (b) supplied by a source of energy that is separate from the primary electrical supply for the **building**, and
 - (c) designed to be automatically activated when the power to the **building** is interrupted.
- (3) The emergency lighting shall provide illumination that is at least an average of 10 lx at floor or tread level or at least 1 watt / m² of floor space.
- (4) Sentence (1) does not apply in **buildings 3 storeys** or less in **building height** that provide sleeping accommodation for 10 or fewer persons.

Subsection 9.7.4. Fire Alarm and Detection

Fire signal to fire department

9.7.4.1. (1) Fire alarm systems shall have provision for notifying the **fire department** in accordance with Article 3.2.4.7. of the **1990 Building Code** that a fire **alarm signal** or **alert signal** has been activated.

(2) Fire alarm systems equipped with a monitoring service that complies with CAN/ULC-S561, “Standard for Installation and Services for Fire Signal Receiving Centres and Systems” are deemed to comply with Sentence (1).

(3) Sentence (1) does not apply to **buildings** equipped with an interconnected **smoke alarm** system.
Sprinkler signal to fire department

9.7.4.2. (1) Sprinkler systems required by this Section shall have provision for notifying the **fire department** in accordance with Article 3.2.4.7. of the **1990 Building Code** that the sprinkler system has been activated.

(2) Sprinkler systems equipped with a monitoring service that complies with CAN/ULC-S561, “Standard for Installation and Services for Fire Signal Receiving Centres and Systems” are deemed to comply with Sentence (1).

(3) Sentence (1) does not apply where the fire alarm system or interconnected **smoke alarm** system has provision for notifying the **fire department** in accordance with Article 3.2.4.7. of the **1990 Building Code** that a fire **alarm signal** or **alert signal** has been activated.

Smoke alarms

9.7.4.3. (1) A **smoke alarm** shall be installed in each **suite** and in each sleeping room not within a suite.

(2) **Smoke alarms** shall be installed with permanent connections to an electrical circuit and shall have no disconnect switch between the overcurrent device and the **smoke alarm**.

(3) Battery-operated **smoke alarms** are deemed to be in compliance with Sentence (2).

(4) **Smoke alarms** required in Sentence (1) shall conform to CAN/ULC-S531, “Standard for Smoke Alarms”.

(5) **Smoke alarms** required in Sentence (1) shall be installed in accordance with CAN/ULC-S553, “Standard for the Installation of Smoke-Alarms”.

(6) REVOKED.

(7) A **smoke detector** that is installed in each **suite** and in each sleeping room not within a **suite** is deemed to be in compliance with Sentence (1) if it is connected to a fire alarm system.

Voice communication systems

9.7.4.4. (1) A voice communication system conforming to Article 3.2.4.22. of the **1990 Building Code** shall be provided in every **building** where a **floor area** that is more than 18 metres above **grade** contains a **care occupancy** or a **retirement home**.

(2) A voice communication system is deemed to be in compliance with Sentence (1) if it

- (a) consists of loudspeakers operated from,
 - (i) the central alarm and control facility, or
 - (ii) another location that is accessible to the **fire department** and **supervisory staff** required under Subsection 2.8.2. and that is **approved**,
- (b) provides a clear verbal signal throughout the **building**, except within elevator cars, and
- (c) provides for automatic silencing of the fire alarm devices when the loudspeakers are in use.

(3) A public address system capable of providing a clear verbal signal throughout the **building**, though not within elevator cars, is deemed to be in compliance with Sentence (1).

Subsection 9.7.5. Suppression

Sprinkler systems

9.7.5.1. (1) An automatic sprinkler system shall be installed in accordance with NFPA 13, “Standard for the Installation of Sprinkler Systems”

- (a) in each **building**, or

- (b) where a **building** is only partially occupied by a **care occupancy** or **retirement home**, on those **storeys** of the **building** that are occupied by the **care occupancy** or **retirement home**.
- (2) Despite Sentence (1), in a **building** not greater than 3 **storeys** in **building height** that provides sleeping accommodation for not more than 10 persons, a sprinkler system may be installed in accordance with NFPA 13D, “Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes”, except that the minimum quantity of available water shall be adequate for a demand duration of at least 20 minutes if stored water is used as the sole water supply source.
- (3) Despite Sentence (1), in a **building** not greater than 6 **storeys** in **building height**, a sprinkler system may be installed in accordance with NFPA 13R, “Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height”.
- (4) An existing sprinkler system that provides an average sprinkler discharge density over a design area that is equal to the minimum density corresponding to the area for light hazard classification as defined in NFPA 13, “Standard for the Installation of Sprinkler Systems”, is deemed to be in compliance with Sentence (1).
- (5) Sprinkler systems shall be equipped with local electric waterflow alarms.
- (6) If a fire pump is required by NFPA 13 or NFPA 13R, it shall be installed in accordance with NFPA 20, “Standard for the Installation of Stationary Pumps for Fire Protection”, if it has a rated net head pressure greater than 280 kPa.
- (7) Sentences (1) to (6) do not apply to a **building** not greater than 3 **storeys** in **building height** that provides sleeping accommodation for not more than four persons, if the **building** is equipped with **smoke alarms** that comply with Article 9.5.4.4. and that are interconnected so that the activation of any **smoke alarm** will sound a similar signal in each of the interconnected **smoke alarms**.
- (8) Despite Clause (1)(b), installation of a sprinkler system is not required for those **storeys** containing the **care occupancy** or **retirement home** if the **care occupancy** or **retirement home** occupies not more than 10% of the **floor area** of the **storey**.

SECTION 9.8 TWO UNIT RESIDENTIAL OCCUPANCIES

Subsection 9.8.1. Application and General

Application

- 9.8.1.1. (1) This Section applies to a detached house, semi-detached house or row house containing two **residential units**, if
- (a) the **building** is 3 **storeys** or less in **building height**,
 - (b) the **building area** does not exceed 600 m², and
 - (c) one **residential unit** or a portion of a **residential unit** is situated above another **residential unit** or two **residential units** side by side share a common interior means of escape.
- (2) For the purposes of this Section, a self-contained living unit that consists of boarding, lodging or rooming accommodation for four or fewer persons, and includes both bathroom and kitchen facilities for the exclusive use of persons residing in the unit, shall be deemed to be a **residential unit**.

Definitions

- 9.8.1.2. (1) For the purposes of this Section,
- “**1994 Building Code**” means Regulation 61 of the Revised Regulations of Ontario, 1990, as it read on July 14, 1994;

“existing” means in existence on July 14, 1994;

“row house” means a residential structure which

- (a) is one of a group of three or more horizontally attached residential structures, and
- (b) is separated vertically from one or two of the other structures by common walls which do not provide for internal access from the living space in one structure to another;

“semi-detached house” means a residential structure which

- (a) is one of two horizontally attached residential structures, and
- (b) is separated vertically from the other residential structure by a common wall which does not provide for internal access from the living space in one structure to the other.

Subsection 9.8.2. Containment

General requirements for fire separations

9.8.2.1. (1) **Fire separations** required to have a **fire-resistance rating** by this Section shall comply with Article 9.10.3.1. of the **1994 Building Code** or the corresponding compliance alternatives in Part 11 of the **1994 Building Code**.

(2) Except as permitted in Article 9.8.2.5., a wall or floor assembly required to be a **fire separation** shall be constructed as a continuous barrier against the spread of fire.

(3) Where a 30 min **fire-resistance rating** is required, existing wall assemblies and floor assemblies consisting of membranes of lath and plaster or gypsum board are deemed to be in compliance with Sentence (1).

(4) Where a 15 min **fire-resistance rating** is required, existing wall assemblies and floor assemblies consisting of membranes of plaster board with a plaster skim coat are deemed to be in compliance with Sentence (1).

Fire separations between residential units

9.8.2.2. (1) Subject to Article 9.8.2.3., each **residential unit** shall be separated from other rooms and areas by a **fire separation** having a **fire-resistance rating** not less than 30 min or shall comply with Sentence (2) or (3).

(2) Subject to Article 9.8.2.3., each **residential unit** shall be separated from other rooms and areas by a **fire separation** having a **fire-resistance rating** not less than 15 min and be equipped with interconnected **smoke alarms** that comply with Article 9.8.4.1.

(3) Existing **fire separations** are deemed to be in compliance with Sentence (1) where the detached house, semi-detached house, or row house is **sprinklered** in accordance with Article 9.8.5.1.

Alternative protection for ceilings

9.8.2.3. (1) The **fire-resistance rating** of the **fire separation** above a room containing a fuel-fired **appliance** is not required where the room is **sprinklered**

- (a) with a spacing not exceeding 9.5 m² per sprinkler, and
- (b) so that a minimum average sprinkler discharge density of is provided 6.5 L/min/m² over the room area.

Combustion air

9.8.2.4. Where a room containing a fuel-fired **appliance** is enclosed to satisfy other provisions of this Section in a manner that restricts the supply of combustion air, sufficient combustion air shall be brought directly from the outside for the proper combustion and safe operation of the **appliance**.

Protection of openings in fire separations

9.8.2.5. (1) Openings in **fire separations** required by Sentences 9.8.2.2.(1) and (2) and 9.8.3.3.(1) shall be protected with **closures** conforming to Articles 9.10.13.2. and 9.10.13.10. of the **1994 Building Code**.

(2) Despite Sentence (1), existing 45 mm solid core wood, hollow metal or kalamein doors equipped with self-closing devices, installed in hollow metal or solid wood frames, are acceptable.

(3) Despite Sentence (1), **fire dampers** or **fire stop flaps** are not required in ducts at penetrations of a **fire separation**.

Subsection 9.8.3. Means of Egress***Requirements for means of escape***

9.8.3.1. Each **residential unit** shall be provided with a means of escape conforming to Article 9.8.3.2., 9.8.3.3., 9.8.3.4. or 9.8.3.5.

One means of escape

9.8.3.2. (1) Each **residential unit** shall be served by at least one means of escape consisting of a door that

- (a) serves only that **residential unit**,
- (b) opens directly to the exterior from that **residential unit**, and
- (c) has direct access to ground level.

(2) Where a **residential unit** is served by only one means of escape, the **flame-spread rating** of interior wall and ceiling finishes of hallways and stairways leading to the means of escape shall not exceed 150.

(3) Doors within hallways and stairways referred in Sentence (2) are permitted to have a **flame-spread rating** of up to 200.

9.8.3.3. (1) Each **residential unit** shall have direct access to at least one means of escape that may be shared if

- (a) the means of escape is separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 30 min,
- (b) the **flame-spread rating** of interior wall and ceiling finishes within the means of escape does not exceed 150, and
- (c) the means of escape does not involve entering another **residential unit** or other **occupancy** and leads directly to the exterior with direct access to ground level.

(2) Where a means of escape provided by Sentence (1) serves a **residential unit** situated entirely on the third **storey**, the detached house, semi-detached house or row house shall be equipped with interconnected **smoke alarms** conforming to Article 9.8.4.1.

Two means of escape

9.8.3.4. (1) Each **residential unit** shall be served by at least two means of escape arranged in such a manner that

- (a) one means of escape shall be through a door which may lead through another **residential unit**, and
- (b) the second means of escape shall be through a window if
 - (i) the window conforms to Sentence (2) or (3), and
 - (ii) the detached house, semi-detached house or row house is equipped with interconnected **smoke alarms** conforming to Article 9.8.4.1.

(2) A window may serve as a second means of escape if

- (a) the sill is not more than 1 m above or below the adjacent ground level,
- (b) the window can be opened from the inside without the use of tools,

- (c) the window has an individual, unobstructed open portion having a minimum area of 0.38 m² with no dimension less than 460 mm,
 - (d) the sill height does not exceed 900 mm above the floor or fixed steps,
 - (e) where the window has a window-well, a clearance of at least 1 m is provided in the window-well in front of the window, and
 - (f) where the window has a window-well, the window opens into the **residential unit** and does not interfere with escape.
- (3) A window may serve as a second means of escape if
- (a) the window is of a casement type,
 - (b) the window is not less than 1060 mm high and 560 mm wide,
 - (c) the sill of the window is not more than 900 mm above the inside floor, and
 - (d) the sill of the window is not less than 1 m and not more than 5 m above the adjacent ground level.

Existing means of escape with sprinklers

9.8.3.5. An existing means of escape, not conforming to Article 9.8.3.2., 9.8.3.3. or 9.8.3.4., is acceptable if the detached house, semi-detached house or row house is **sprinklered** in accordance with Article 9.8.5.1.

Subsection 9.8.4. Fire Alarm and Detection

Interconnected smoke alarms

- 9.8.4.1. (1) Interconnected **smoke alarms** required in Sentences 9.8.2.2.(2) and 9.8.3.3.(2) and Clause 9.8.3.4.(1)(b) shall be installed on or near the ceiling in each
- (a) **storey** within a **residential unit**, including every **basement**, and
 - (b) shared means of escape.
- (2) **Smoke alarms** referred to in Sentence (1) shall be
- (a) interconnected so that the activation of any **smoke alarm** will sound a similar signal in each of the interconnected devices,
 - (b) installed in accordance with the manufacturer's instructions, and on floor levels containing bedrooms or sleeping areas, the required **smoke alarms** shall be installed between such bedrooms and the remainder of the **residential unit**, such as in a hallway or corridor serving such rooms or areas,
 - (c) connected to an electrical circuit with no disconnect switch between the overcurrent device and the **smoke alarms**,
 - (d) **listed** for use in an interconnected installation, and
 - (e) audible in bedrooms when the intervening doors are closed.

Smoke alarms

- 9.8.4.2. (1) **Smoke alarms** shall be installed in each **residential unit** in accordance with Sentences 3.2.4.21.(1) to (4) of the **1994 Building Code** and Sentences (4) and (5) of this Article.
- (2) Battery-operated **smoke alarms** are deemed to be in compliance with Sentence 3.2.4.21.(4) of the **1994 Building Code**.
- (3) **Smoke alarms** shall meet the requirements of
- (a) CAN/ULC-S531, "Standard for Smoke Alarms", and
 - (b) CAN/ULC-S553, "Standard for the Installation of Smoke-Alarms".
- (4) At least one **smoke alarm** shall be installed on each **storey** of a **residential unit**.
- (5) When interconnected **smoke alarms** are installed in accordance with Article 9.8.4.1., the **smoke alarms** referred to in Sentences (1) and (4) are not required.

Subsection 9.8.5. Suppression

Sprinkler systems

9.8.5.1. Sprinkler protection required in this Section shall be designed and installed in conformance with NFPA 13D, “Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes”.

Subsection 9.8.6. Electrical

Electrical inspections required

9.8.6.1. (1) Each detached house, semi-detached house and row house regulated by this Section shall, at the discretion of the **Chief Fire Official**, be subjected to an inspection by the Electrical Safety Authority and inspection fees shall be paid by the **owner**.

(2) Electrical deficiencies that pose a fire hazard identified during an inspection required by Sentence (1) shall be repaired by a Licensed Electrical Contractor licensed in accordance with the **Electricity Act, 1998** and its regulations.

(3) A Certificate of Acceptance from the Electrical Safety Authority for an inspection required by Sentence (1) shall be made available to the **Chief Fire Official** upon request.

SECTION 9.9 HOTELS

Subsection 9.9.1. Application and General

Application

9.9.1.1. (1) Except as provided in Sentences (2), (3) and (4), this Section applies to every **hotel establishment**.

(2) Except as required in Sentence (5), this Section does not apply to a **hotel establishment** where every **building** that contains a **hotel**

- (a) is not more than 1 **storey** in **building height**, and
- (b) has a **building area** of 300 m² or less.

(3) Except as required in Sentences (5) and (6), this Section does not apply to a **building** or part of a **building** that was regulated under Section 9.2, 9.3, 9.5 or 9.6 on December 31, 2006 if the use of the **building** is unchanged since that date.

(4) Except as required in Sentence (6), if the **building** contains **major occupancies** that operate under independent control from the **hotel establishment**, this Section does not apply to fire safety systems, devices and structural elements of those **major occupancies** that do not affect the life safety of the **hotel** occupants.

(5) Article 9.9.4.13. applies to a **building** or part of a **building** described in Sentence (2) or (3).

(6) Articles 9.9.2.9. and 9.9.2.15. apply to a **building** or part of a **building** described in Sentence (3) or (4).

Building audit

9.9.1.2. (1) A **building** audit shall be prepared and retained by the **owner**.

(2) The **building** audit referred to in Sentence (1) shall identify and describe the existing **building** features in relation to the requirements of this Section, including

- (a) containment and control of a fire, including
 - (i) **fire separations**,
 - (ii) **firewalls**,
 - (iii) construction assemblies,
 - (iv) **occupancy** separations,
 - (v) interior finishes,
 - (vi) smoke control,
 - (vii) heating, ventilating and air-conditioning systems, and
 - (viii) cooking operations,
- (b) detection, including
 - (i) alarm and detection systems,
 - (ii) **smoke alarms**, and
 - (iii) voice communication systems,
- (c) suppression, including
 - (i) **fire department** access,
 - (ii) standpipe and hose systems,
 - (iii) sprinkler or special fire suppression systems, and
 - (iv) firefighters' elevators, and
- (d) egress, including
 - (i) the number, type, **access to**, direction to, lighting for and identification of **exits**,
 - (ii) fire escapes,
 - (iii) **occupant load**, and
 - (iv) emergency lighting.

Definitions

9.9.1.3. For the purposes of this Section,

“**1994 Building Code**” means Regulation 61 of the Revised Regulations of Ontario, 1990, as it read on June 23, 1994;

“existing” means in existence on January 1, 2007.

Subsection 9.9.2. Containment

Construction

9.9.2.1. (1) **Fire separations** required by this Section to have a **fire-resistance rating** shall be in conformance with Subsection 3.1.7. and Articles 3.1.8.1., 3.1.8.2., 3.1.8.3. and 3.5.4.2. of the **1994 Building Code**.

(2) If a **fire-resistance rating** of 2 h or less is required, existing wall assemblies, floor assemblies and their supporting assemblies are deemed to comply with Sentence (1) if they consist of

- (a) reinforced concrete,
- (b) masonry, or
- (c) clay tile with plaster or gypsum board finish on both sides

(3) If a **fire-resistance rating** of 1 h or less is required, existing wall assemblies, floor assemblies, ceilings and their supporting assemblies that consist of membranes of lath and plaster or gypsum board are deemed to be comply with Sentence (1).

(4) **Heavy timber construction** conforming to Article 3.1.4.6. of the **1994 Building Code** is deemed to have a 45 min **fire-resistance rating**.

(5) **Buildings** with limited combustible components may be **approved** as **noncombustible construction**.

(6) Except as permitted in Sentences (7) and (8), floor assemblies shall be **fire separations**.

(7) Sentence (6) does not apply to floor assemblies between different levels of the same multi-level **guest suite**.

(8) A floor assembly immediately above a crawl space is not required to be constructed as a **fire separation** and is not required to have a **fire-resistance rating** provided the crawl space is not considered as a **basement** in Sentence 3.2.2.5.(1) of the **1994 Building Code**.

Buildings up to 3 storeys

9.9.2.2. (1) **Buildings** shall comply with the requirements of Sentence (2), where the **building** is

- (a) not more than 1 **storey** in **building height** and not greater than 1200 m² in **building area**,
- (b) not more than 2 **storeys** in **building height** and not greater than 900 m² in **building area**, or
- (c) not more than 3 **storeys** in **building height** and not greater than 600 m² in **building area**.

(2) Floor assemblies and walls, columns and arches supporting floor assemblies shall have a **fire-resistance rating** not less than 30 min.

(3) Where sleeping accommodation or meeting rooms are not provided in the **basement**, an existing **fire separation** between the **first storey** and **basement** is deemed to be in compliance with Sentence (2) where

- (a) the **basement** is **sprinklered**,
- (b) the **building** contains not more than four **guest suites** and provides sleeping accommodation for not more than 10 persons, and
 - (i) interconnected **smoke alarms** are installed in conformance with Clause 9.9.4.1.(3)(c),
 - (ii) doors connecting the **basement** and **first storey** have a **fire-protection rating** not less than 20 min and are equipped with self-closing and latching devices, and
 - (iii) **fire stopping** of the wall space at the **basement** level is in conformance with Article 9.10.15.3. of the **1994 Building Code**, or
- (c) the **building** is 1 **storey** in **building height**, not more than 600 m² in **building area**, and
 - (i) each **guest suite** has direct access to the outdoors by a door near ground level,
 - (ii) doors connecting the **basement** and **first storey** have a **fire-protection rating** not less than 20 min and are equipped with self-closing and latching devices,
 - (iii) **fire stopping** of the wall space at the **basement** level is in accordance with Article 9.10.15.3. of the **1994 Building Code**, and
 - (iv) an **approved** early warning system is installed consisting of **fire detectors** in the **basement** interconnected with alarm signalling devices that are audible in all **guest suites**.

(4) The water supply for the sprinklers referred to in Clause (3)(a) may be taken from the domestic supply where the supply provides sufficient density for the largest **fire compartment** and where the supply is **approved**.

(5) A **building** that is **sprinklered** is deemed to be in compliance with Sentence (2).

Buildings up to 4 storeys

9.9.2.3. (1) **Buildings** to which Sentence 9.9.2.2.(1) does not apply and that are not more than 4 **storeys** in **building height** shall comply with Sentences (2) and (3).

(2) Floor assemblies and walls, columns and arches supporting floor assemblies shall have a **fire-resistance rating** not less than 45 min.

(3) **Smoke detectors** shall be provided in corridors serving **guest suites** in **buildings** of **combustible construction**.

(4) A **building** that is **sprinklered** is deemed to be in compliance with Sentences (2) and (3).

Buildings over 4 storeys but not more than 6 storeys

9.9.2.4. (1) **Buildings** to which Articles 9.9.2.2. and 9.9.2.3. do not apply and that are not more than 6 storeys in **building height** shall

- (a) have a **fire-resistance rating** not less than 45 min for floor assemblies and walls, columns and arches supporting floor assemblies, and
- (b) be **sprinklered**, where the **building** is of **combustible construction**.

(2) Where only the roof assembly is of **combustible construction**, the **building** is deemed to be in compliance with Clause (1)(b) where

- (a) the ceiling membrane has a **fire-resistance rating** not less than 45 min and the **attic space** is **fire stopped** in accordance with Article 3.1.11.5. of the **1994 Building Code**,
- (b) the roof assembly is of **heavy timber construction** in conformance with Article 3.1.4.6. of the **1994 Building Code**, or
- (c) the top **storey** and attic space are **sprinklered**.

(3) Where **smoke detectors** are provided in corridors serving **guest suites**, a **building** of **heavy timber construction** conforming to Article 3.1.4.6. of the **1994 Building Code** is deemed to be in compliance with Sentence (1).

Buildings over 6 storeys

9.9.2.5. (1) **Buildings** that are more than 6 **storeys** in **building height** shall

- (a) have a **fire-resistance rating** not less than 1 h for floor assemblies and walls, columns and arches supporting floor assemblies, and
- (b) be **sprinklered**, where the **building** is of **combustible construction**.

(2) Where only the roof assembly is of **combustible construction**, the **building** is deemed to be in compliance with Clause (1)(b) where

- (a) the ceiling membrane has a **fire-resistance rating** not less than 45 min and the **attic space** is **fire stopped** in accordance with Article 3.1.11.5. of the **1994 Building Code**,
- (b) the roof assembly is of **heavy timber construction** in conformance with Article 3.1.4.6. of the **1994 Building Code**, or
- (c) the top **storey** and attic space are **sprinklered**.

Adjacent buildings

9.9.2.6. (1) A **building** containing a **hotel** shall be separated from a directly connected adjacent **building** that does not contain a **hotel** by a noncombustible **fire separation** having a **fire-resistance rating** not less than 2 h.

(2) An existing wall having a **fire-resistance rating** not less than 2h and constructed as a **fire separation** is deemed to comply with Sentence (1).

(3) Where the connection consists of an aboveground or underground walkway in conformance with Articles 3.2.3.20. and 3.2.3.21. of the **1994 Building Code**, the **building** is deemed to be in compliance with Sentence (1).

Interconnected floor spaces

9.9.2.7. (1) Despite Sentence 9.9.2.1.(6), a floor assembly may be penetrated by an unprotected opening between 2 contiguous **storeys** up to the fifth **storey** where

- (a) the **building** is of **noncombustible construction**,
- (b) the interconnected floor space does not contain sleeping accommodation, and
- (c) the required **fire-resistance rating** of the floor assembly is maintained.

(2) Despite Sentence 9.9.2.1.(6), in a **building** that is not more than 3 **storeys** in **building height** and not more than 600 m² in **building area**, a floor assembly is not required to be constructed as a **fire separation** between 2 contiguous **storeys** where

- (a) the interconnected floor space consists of the **first storey** and the **storey** next above or below, but not both,
- (b) the interconnected floor space is **sprinklered**, and
- (c) the sprinkler system is equipped with a water flow device and electrical supervision in conformance with Sentence 3.2.8.7.(2) of the **1994 Building Code**.

(3) Despite Sentence 9.9.2.1.(6), a floor assembly in a **storage garage** does not need to be a **fire separation**.

(4) Interconnected floor spaces in conformance with Subsection 3.2.8. of the **1994 Building Code** are deemed to be in compliance with Sentence (1).

Fire separation of guest suites

9.9.2.8. (1) **Guest suites** shall be separated from adjacent rooms and areas on the same **floor area** by

- (a) a **fire separation** having a **fire-resistance rating** not less than 30 min in **buildings** that are not more than 6 **storeys** in **building height**, and
- (b) a **fire separation** having a **fire-resistance rating** not less than 45 min in **buildings** that are more than 6 **storeys** in **building height**.

Fire separation of corridors

(2) Corridors serving **guest suites** shall be separated from adjacent rooms and areas on the same **floor area** by

- (a) a **fire separation** having a **fire-resistance rating** not less than 30 min in **buildings** that are not more than 6 **storeys** in **building height**, and
- (b) a **fire separation** having a **fire-resistance rating** not less than 45 min in **buildings** that are more than 6 **storeys** in **building height**.

(3) Existing **fire separations** are deemed to comply with Sentences (1) and (2) if the **floor area** is **sprinklered**.

Fire separations between major occupancies

9.9.2.9. (1) **Fire separations** having a **fire-resistance rating** not less than 45 min shall be provided between **major occupancies**.

(2) Existing **fire separations** having a **fire-resistance rating** not less than 30 min are deemed to comply with Sentence (1) if

- (a) the **floor area** is **sprinklered**, or
- (b) the part of the **building** containing the **major occupancy** is equipped with **fire detectors** and connecting corridors are equipped with **smoke detectors** as part of the fire alarm system of the **building**.

Protection of openings in fire separations

9.9.2.10. (1) **Closures** in **fire separations** shall be in conformance with

- (a) Sentences 3.1.8.4.(2) and 3.1.8.10.(1) of the **1994 Building Code**, and
- (b) Articles 3.1.8.11. and 3.1.8.13. of the **1994 Building Code**.

(2) Despite Sentence (1), openings in **fire separations** to which Article 9.9.2.8. or 9.9.2.11. applies may be protected with **closures** having a **fire-protection rating** not less than 20 min.

(3) If a **fire-protection rating** of 1 h or less is required, existing **closures** are deemed to comply with Sentence (1) if they consist of

- (a) hollow metal or kalamein doors in hollow metal frames, with openings, if any, protected by wired glass and equipped with self-closing and latching devices, or
- (b) wired glass screens set in fixed steel frames.

(4) Where a 20 min **fire-protection rating** is required, existing **closures** consisting of door assemblies of 45 mm solid core wood doors installed in solid wood or hollow metal frames and equipped with self-closing and latching devices are deemed to be in compliance with Sentences (1) and (2).

(5) Despite Sentence (1), existing **closures** in **fire separations** to which Articles 9.9.2.8. and 9.9.3.6. apply need not be equipped with latching devices in **buildings** that are not more than 6 **storeys** in **building height**.

(6) Where the **floor area** is **sprinklered**, existing **closures** in **fire separations** to which Article 9.9.2.8. applies are deemed to be in compliance with Clause (1)(a) and Sentence (2).

(7) **Fire dampers** shall be installed in **fire separations** in conformance with Article 3.1.8.7. of the **1994 Building Code**.

(8) Despite Sentence (7), **fire dampers** are not required in existing noncombustible ducts at penetrations of **fire separations**.

Laundry rooms, storage rooms and maintenance shops

9.9.2.11. Laundry rooms, storage rooms exceeding 0.6 m² in area and maintenance shops shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 45 min.

Fuel-fired appliances

9.9.2.12. (1) Fuel-fired **appliances**, except for cooking **appliances**, shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 1 h.

(2) Sentence (1) does not apply to a gas or oil-fired **appliance** installed on the roof of a **building** of **noncombustible construction**.

(3) Sentence (1) does not apply to fireplaces and **space heaters** provided the **appliance** is not located in an **exit** or in a corridor serving as an **access to exit** for **guest suites**.

(4) Despite Sentence (1), the **fire-resistance rating** of the **fire separation** above the room is not required where

- (a) the required vertical **fire separation** to the room is provided, and
- (b) the room area is **sprinklered**
 - (i) with a spacing not exceeding 9.5 m² per sprinkler, and
 - (ii) so that a minimum average sprinkler discharge density of 6.5 L/min/m² is provided over the room area.

(5) Where an **appliance** is separated in conformance with this Article, sufficient combustion air shall be brought directly from the outside for the safe operation of the **appliance**.

(6) If it is not practical to provide combustion air directly from the outside as required in Sentence (5), alternative means for the safe operation of the **appliance** may be **approved**.

(7) Despite Sentence (1), a **fire separation** is not required for a fuel-fired **appliance** located within a **guest suite** and serving only that **guest suite**.

Vertical service spaces

9.9.2.13. (1) **Vertical service spaces** shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 45 min.

(2) Where the existing **vertical service space**, including the top and bottom, is sealed with gypsum board, lath and plaster or other similar noncombustible material, the **vertical service space** is deemed to be in compliance with Sentence (1).

Refuse and linen chutes

9.9.2.14. (1) Unless otherwise **approved**, linen and refuse chutes shall be located in a shaft separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 1 h.

(2) Linen and refuse chutes shall terminate or discharge directly into rooms that are separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 1 h.

(3) In **buildings** more than 2 storeys in **building height**, automatic sprinklers shall be installed in each linen or refuse chute

- (a) at the top,
- (b) at alternate floor levels, and
- (c) in the room or bin into which the chute discharges.

(4) An existing chute installation is deemed to be in compliance with Sentence (3) where

- (a) the chute outlet in the discharge room is protected by an automatic, self-latching **closure** held open by a fusible link in **buildings** greater than 6 storeys in **building height**,
- (b) the room into which the chute discharges is **sprinklered**, and
- (c) at least one sprinkler head with a minimum discharge rate of 66 L/min is located at the top of the chute.

Smoke control

9.9.2.15. (1) **Buildings** containing a **hotel** where the vertical distance between the floor of the top **storey** and **grade** exceeds 18 m shall have smoke control measures in conformance with Sentences (2) and (3).

(2) **Buildings** containing a **hotel** shall

- (a) have smoke control measures that prevent smoke spread from **floor areas** containing other **occupancies** to upper **floor areas** that contain **guest suites**, or
- (b) be **sprinklered** on all **floor areas** containing other **occupancies** that are located below floors that contain **guest suites**.

(3) **Buildings** containing a **hotel** shall have smoke control measures in conformance with Article 3.2.6.2. of the **1994 Building Code**.

(4) A **building** is deemed to be in compliance with Sentence (3) where

- (a) all **guest suites** have access to an exterior balcony,
- (b) the length of corridors serving **guest suites** does not exceed 30 m between **exits**,
- (c) corridors serving **guest suites** are equipped with **smoke detectors** connected to the fire alarm system,
- (d) corridors serving **guest suites** are subdivided in conformance with Sentence (5), or
- (e) the **building** is **sprinklered**.

(5) The corridor subdivision referred to in Clause (4)(d) shall

- (a) separate the corridor into at least two compartments by a **fire separation** that does not require a **fire-resistance rating**,
- (b) be located so that not more than one of the required **exit** stairs is located in any one compartment and the distance of travel from any **guest suite** entrance door to an **exit** or adjacent compartment does not exceed 25 m, and
- (c) include smoke-tight doors equipped with self-closing devices that act as **closures** in the **fire separation**.

Pipes, ducts and plenums

9.9.2.16. (1) Pipes, ducts, **plenums** and other equipment in heating and air handling systems shall be constructed of steel, **approved** noncombustible material or other **approved** material.

(2) Insulating materials and adhesives for pipes, ducts, **plenums** and other components of heating and air handling systems shall be noncombustible or shall have a **flame-spread rating** of 25 or less or shall be of some other **approved** composition.

(3) Where an **attic space**, a crawl space, a corridor ceiling space or any other concealed space is used as a **plenum**, the concealed space shall be lined with noncombustible material, material having a **flame-spread rating** of 25 or less or other **approved** material.

9.9.2.17. (1) A **fire separation** that separates an **exit** stairway from the remainder of the **building** shall not be breached by a duct or other part of an air handling system.

(2) Despite Sentence (1), an **exit** through a lobby or other entrance area that is within a stairway separation may be breached if the stairway is separated from the entrance area by a **fire separation** having a **fire-resistance rating** not less than 45 min.

9.9.2.18. No stairway enclosure or corridor shall be used as a **plenum** to exhaust air from other areas.

Cooking operations

9.9.2.19. (1) An existing cooking operation that complies with Sentences (2) to (6) is deemed to comply with Sentence 2.6.1.12.(1).

(2) Cooking operations shall have an existing exhaust system which, unless otherwise **approved**, shall be provided with

- (a) a hood or other primary collection device to collect and confine all cooking vapours and residues emanating from the cooking equipment,
- (b) a grease filter or other means of grease extraction,
- (c) a duct from the hood or other primary collection device which
 - (i) leads as directly as possible to the outside,
 - (ii) is independent and not connected to any other ventilation system, and
 - (iii) has adequate openings for **inspection** and cleaning purposes that are equipped with tight fitting doors,
- (d) a residue trap with provisions for cleanout at the base of each vertical riser, and
- (e) mechanically induced air flow of sufficient velocity to confine cooking vapours and residues to the hood or other primary collection means installed at the cooking equipment.

(3) Pipes, ducts, **plenums** and other components of the exhaust system shall be constructed of steel, **approved** noncombustible material or other **approved** material.

(4) Insulating material and adhesive used in the exhaust system shall be noncombustible or shall have a **flame-spread rating** of 25 or less or shall have some other **approved** composition.

(5) The cooking operation shall be

- (a) located in a kitchen that is separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 45 min, or
- (b) protected by a fixed fire protection system.

(6) The **fire separation** referred to in Sentence (5) may contain an unprotected pass-through opening into the adjoining dining area if **approved** measures are provided to limit fire spread.

Subsection 9.9.3. Means of Egress

Occupant load

9.9.3.1. (1) The **occupant load** for calculation of the number and width of **access to exits** and **exits** referred to in this Section shall be determined in accordance with Subsection 3.1.16. of the **1994 Building Code**.

(2) The **occupant load** of a **floor area** may vary if it is used for different **occupancies** at different times, but the **exits** from the **floor area** shall provide the aggregate **exit** width prescribed in Article 9.9.3.2. for the greatest **occupant load**.

Access to exit

9.9.3.2. (1) Each room, **guest suite**, podium, terrace, platform, contained open space or other area intended for **occupancy** shall have egress facilities leading directly to

- (a) a public thoroughfare,
- (b) an **approved** open space that has access to a public thoroughfare, or
- (c) a corridor where it is possible to go in opposite directions to separate **exits**, except as otherwise permitted by this Article or Article 9.9.3.3.

Dead end corridors

(2) Dead end corridors shall not be longer than 6 m plus the width of the corridor, unless otherwise **approved**.

(3) Unless otherwise **approved**, no area may be served by a dead end corridor where

- (a) the area contains an **assembly occupancy** and its **occupant load** is greater than 20 persons,
- (b) the area is intended for storage and exceeds 200 m², or
- (c) the area is intended for a use other than that described in Clauses (a) and (b) and exceeds 100 m² in area or has an **occupant load** greater than 24 persons.

(4) If a **guest suite** has access to a second **exit** or if a **guest suite** is in a **building** that is permitted to be served by a single **exit** in compliance with Article 9.9.3.3., a doorway from the **guest suite** may open onto

- (a) an **exit** stairway,
- (b) a fire escape,
- (c) a corridor served by a single **exit**, or
- (d) an exterior passageway served by a single **exit** stairway.

Egress facilities

(5) Each room, **guest suite**, podium, terrace, platform, contained open space or other area intended for **occupancy** shall have two egress doorways placed in such a manner that one doorway could provide egress from the room or area if the other doorway becomes inaccessible to the occupants due to a fire which might originate in the room or area where

- (a) the space is intended for **assembly occupancy**, and
 - (i) the distance of travel to an egress door from any point in the space exceeds 15 m, or
 - (ii) the **occupant load** exceeds 60 persons,
- (b) the space is intended for storage, and
 - (i) exceeds 200 m² in area, or
 - (ii) the distance of travel to an egress door from any point in the space exceeds 23 m, or
- (c) the space is intended for a use other than that described in Clauses (a) and (b), and
 - (i) exceeds 100 m² in area, or
 - (ii) the **occupant load** exceeds 60 persons.

(6) Despite Sentence (5), every room containing an **assembly occupancy** shall be provided with at least

- (a) three independent well-separated egress doorways, where its **occupant load** is 600 persons or more, and
- (b) four independent well-separated egress doorways where its **occupant load** is 1000 persons or more.

(7) Where a room or **floor area** is divided into individual spaces for **assembly occupancy**, egress through an adjacent **assembly occupancy** is permitted provided each space has at least one independent egress doorway in accordance with Sentence (1) and dividing walls or **partitions** are not more than 1.35 m in height.

(8) Dividing walls or **partitions** in Sentence (7) may exceed 1.35 m in height if alternative provisions are **approved** to provide safe egress.

Egress widths

(9) The aggregate width of required **means of egress** from a **floor area** or portion of a **floor area** shall be determined by multiplying the **occupant load** of the area served by

- (a) 6.1 mm per person, for ramps with a gradient of not more than 1 in 8, doorways, corridors and passageways, or
- (b) 9.2 mm per person, for ramps with a gradient of more than 1 in 8 and stairs.

(10) Where two or more egress doorways are required from a **floor area** or portion of a **floor area**, a sufficient aggregate width shall be provided so that the egress capacity is not reduced by more than half if any one doorway or opening is inaccessible in an emergency.

(11) Despite Sentences (9) and (10), the minimum clear width of a **means of egress** shall be not less than

- (a) 1100 mm for corridors,
- (b) 900 mm for stairs, and
- (c) 750 mm for doorways, ramps and all other areas.

Number of exits

9.9.3.3. (1) Each **floor area** shall be served by a minimum of two **exits** where

- (a) the **floor area** is intended for **assembly occupancy**, and
 - (i) the distance of travel to an **exit** from any point in the space exceeds 15 m, or
 - (ii) the **occupant load** exceeds 60 persons,
- (b) the **floor area** is intended for storage, and
 - (i) exceeds 200 m² in area, or
 - (ii) the distance of travel to an **exit** from any point in the space exceeds 23 m,
- (c) the **floor area** is a **basement**, and
 - (i) exceeds 200 m² in area, or
 - (ii) contains areas that are accessible to the public, or
- (d) the **floor area** is intended for a use other than that described in Clauses (a), (b) and (c), and
 - (i) exceeds 100 m² in area, or
 - (ii) the **occupant load** exceeds 60 persons.

(2) Despite Sentence (1), each **floor area** shall be served by at least two **exits** in **buildings** that are more than 3 **storeys** in **building height**.

(3) Despite Sentence (1), where a **building** is 3 **storeys** in **building height**, the third **storey** shall be served by at least two **exits** unless **approved** alternative measures are used.

(4) Despite Sentence (3), there may be a single **exit** from the third **storey** used solely as the residence of the **hotel owner** or manager.

(5) The minimum distance between **exits** referred to in Sentences (1), (2) and (3) shall be 9 m or half the maximum diagonal dimension of the **floor area**, whichever is less.

(6) **Exits** are deemed to comply with Sentence (5) if the **floor area** is divided by a **fire separation** having a **fire-resistance rating** not less than 45 min so that it is necessary to pass through the **fire separation** to travel from one **exit** to another **exit**.

Exit widths

9.9.3.4. Except as provided in Sentence 9.9.3.7.(2), the width of **exits** shall be in conformance with Article 9.9.3.2.

Travel distance

- 9.9.3.5. (1) The **travel distance** to at least one **exit** shall not exceed
- (a) 30 m in a **floor area** that is not **sprinklered**,
 - (b) 45 m in a **sprinklered floor area**, or
 - (c) 45 m in a **basement** that is not accessible to the public.

Stairway separations

- 9.9.3.6. (1) Each **exit** stairway shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** not less than 45 min.
- (2) Each **exit** stairway shall lead directly to a public thoroughfare or to an **approved** open space from inside the **fire separation** described in Sentence (1).
- (3) Despite Sentence (2), one **exit** from a **floor area** may lead through a lobby if
- (a) the path of travel through the lobby to the outdoors at ground level is not more than 15 m,
 - (b) a **fire separation**, constructed in accordance with Sentence (1), is provided between the lobby and any **exit** permitted by this Sentence to lead through a lobby,
 - (c) the lobby is not located within an interconnected floor space described in Article 9.9.2.7.,
 - (d) from the interior of the **exit** stair that leads through the lobby, there is an unobstructed path of travel not leading through the lobby to an alternate **exit** such that
 - (i) it is not necessary to travel up or down more than 1 **storey** to reach the alternate **exit** by means of a protected **access to exit**, or
 - (ii) the path of travel is entirely within the same **storey** as the lobby and is separated from the lobby by a **fire separation** having a **fire-resistance rating** not less than 45 min, and
 - (e) **approved** provisions are made to direct occupants to the alternate **exit** described in Clause (d) in the event of a fire condition in the lobby.
- (4) The lobby described in Sentence (3) may contain an **occupancy** if the required egress width is maintained and clearly delineated.
- (5) Despite Sentence 9.9.2.12.(3), the lobby described in Sentence (3) may contain a fireplace or a **space heater**.
- (6) Despite Sentence (2), an **exit** through a lobby is permitted in conformance with Article 3.4.4.2. or 9.9.8.5. of the **1994 Building Code**, as applicable for the size and height of the **building**.

Exterior stairways and fire escapes

- 9.9.3.7. (1) Exterior **exit** stairways and fire escapes shall not serve **floor areas** above the sixth **storey**.
- (2) Unless otherwise **approved**, each fire escape used as an **exit** and each exterior **exit** stairway shall comply with Articles 3.4.7.2., 3.4.7.3., 3.4.7.5. and 3.4.7.6. of the **1994 Building Code**.
- (3) Unless otherwise **approved**, exterior **exit** stairways, fire escapes and exterior **exit** passageways serving any **storey** above the second **storey** or any **basement** below the first **basement** shall be protected against fire exposure from the **building** in accordance with Sentences (4) and (5).
- (4) For the purposes of Sentence (3), window openings, except **first storey** display windows, shall be protected by wired glass in fixed steel frames if located within 3 **storeys** below, within 10 m below, within 1.8 m above or within 3 m horizontally of an exterior **exit** stairway, fire escape or exterior **exit** passageway.
- (5) For the purposes of Sentence (3), doorways and other openings shall be protected with **closures** having a **fire-protection rating** not less than 45 min if located within 3 **storeys** below, within 10 m below, within 1.8 m above or within 3 m horizontally of an exterior **exit** stairway, fire escape or exterior **exit** passageway.
- (6) Exterior **exit** stairways leading across roofs shall be provided with handrails on both sides of the walkway leading to the stairway at the edge of the roof, unless otherwise **approved**.

- (7) Exterior **exit** stairways and fire escapes below **grade** shall be
 - (a) enclosed by side walls and a roof, with a door to ground level at the upper landing,
 - (b) provided with a roof projecting horizontally for a distance of at least 1.8 m beyond any step or landing, or
 - (c) provided with some other **approved** construction or device to prevent snow from accumulating in the stairway or fire escape.
- (8) Sentence (3) does not apply to an exterior passageway if
 - (a) 50% or more of the exterior side of the passageway is open to the outdoors,
 - (b) the exterior passageway floor assembly has a **fire-resistance rating** not less than 45 min or is of **noncombustible construction**, and
 - (c) an **exit** stairway is provided at each end of the passageway.

Door swing and hardware

9.9.3.8. Each **exit** door and door providing an **access to exit** shall be in conformance with Subsection 2.7.2.

Emergency access to floor areas

9.9.3.9. Doors providing access between **floor areas** and **exit** stairs shall comply with Article 3.4.6.16. of the **1994 Building Code**.

Signs

- 9.9.3.10. (1) **Exit** signs shall be installed in accordance with Subsection 3.4.5. of the **1994 Building Code**.
- (2) Each door opening into an **exit** stairway shall be identified with the number assigned to that floor in accordance with Article 3.4.6.17. of the **1994 Building Code**.
- (3) Existing doors that have the floor level identified in plain legible block letters or numbers at least 114 mm high with a 19 mm stroke on both sides of the door are deemed to be in compliance with Sentence (2).

Interior finishes

- 9.9.3.11. (1) Interior finish materials on the walls and ceilings of **exits** and **access to exits** shall be in accordance with Subsection 3.1.13. of the **1994 Building Code**, except as provided in Sentence (2) or otherwise **approved**.
- (2) Sentence (1) does not apply to
 - (a) wood or other **approved** materials, treated with an **approved** fire retardant, used on the walls of lobbies, foyers, vestibules, entrance halls and other major entrance areas,
 - (b) combustible interior finishes, including paint, wallpaper and other interior finishes not more than 1.5 mm thick used on the walls of corridors, and
 - (c) combustible materials that have a **flame-spread rating** of 150 or less used on the walls and ceilings of **access to exits** if the **access to exits** are **sprinklered**.

9.9.3.12. The **flame-spread rating** of interior wall and ceiling finishes in rooms containing an **assembly occupancy** shall be not more than 150.

Lighting

9.9.3.13. Every **exit** and **access to exit** shall be equipped to provide illumination to an average level of at least 50 lx at floor level and at all points such as angles and intersections at changes of level where there are stairs and ramps.

Emergency lighting

- 9.9.3.14. (1) Emergency lighting shall be provided in
 - (a) **exits** and **access to exits** in **buildings** required to have a fire alarm system, and

- (b) rooms containing an **assembly occupancy** with an **occupant load** of more than 60 persons.
- (2) Emergency lighting required in Sentence (1) shall be
 - (a) designed to provide illumination for a duration of at least
 - (i) 2 h in **buildings** where the vertical distance between the floor of the top **storey** and **grade** exceeds 18 m, and
 - (ii) 30 min in **buildings** where the vertical distance between the floor of the top **storey** and **grade** is not more than 18 m,
 - (b) supplied by a source of energy separate from the primary electrical supply for the **building**, and
 - (c) designed to be automatically actuated when the power to the **building** is interrupted.
- (3) Illumination from emergency lighting referred to in Sentence (2) shall be an average of at least 10 lx at floor or tread level, or 1 watt/m² of floor space.

Subsection 9.9.4. Fire Alarm and Detection

Fire alarm requirements

- 9.9.4.1. (1) A fire alarm system with **listed** components shall be installed in each **building** in accordance with Articles 9.9.4.2. to 9.9.4.12. where
- (a) the **building area** is more than 600 m²,
 - (b) the **building** is more than 1 **storey** in **building height**, or
 - (c) each **guest suite** is not served by an exterior **exit** facility leading to ground level.
- (2) A **building** is deemed to be in compliance with Sentence (1) where
- (a) the **building** is not more than 3 **storeys** in **building height**,
 - (b) each **guest suite** is served by an exterior **exit** facility leading to ground level,
 - (c) each **guest suite** is separated from adjacent rooms by a **fire separation** having a **fire-resistance rating** not less than 45 min, and
 - (d) each **guest suite** is equipped with a **smoke alarm**.
- (3) A **building** is deemed to be in compliance with Sentence (1) where
- (a) the **building** is not more than 3 **storeys** in **building height**,
 - (b) sleeping accommodation is provided for not more than 10 persons, and
 - (c) the **building** is equipped with
 - (i) **smoke alarms** on or near the ceiling in corridors serving **guest suites** on each **floor area**, adjacent to each stairway serving the corridors, and on or near the ceiling in the **basement**, adjacent to each stairway, and
 - (ii) one manual pull station in each **floor area** in an **approved** location, installed and interconnected so that the actuation of any manual pull station or **smoke alarm** will cause all **smoke alarms** to operate and be audible throughout the **building**.

Automatic detection

- 9.9.4.2. (1) Automatic detection devices referred to in Sentences (2), (3) and (4) shall be installed and connected to the fire alarm system required in Sentence 9.9.4.1.(1).
- (2) **Fire detectors** shall be installed
- (a) in every part of a **building** that requires a fire alarm system in Article 9.9.4.1., other than corridors, washrooms, closets in **guest suites**, saunas, refrigerated areas and swimming pools,
 - (b) at the tops of elevator shafts, and
 - (c) at the tops of **exit** stairs.
- (3) Despite Sentence (2), **fire detectors** are not required in existing **guest suites** where **smoke detectors** are installed in every corridor serving the **guest suites**.

(4) Rooms or areas that are **sprinklered** in accordance with Article 3.2.4.16. of the **1994 Building Code** are deemed to be in compliance with Sentence (2).

Manual pull stations

- 9.9.4.3. (1) Unless otherwise **approved**, manual pull stations shall be installed at
- (a) the main reception area, and
 - (b) near every **exit**.
- (2) Despite Sentence (1), a manual pull station may serve two **exits** where
- (a) the **exits** are not more than 9 m apart,
 - (b) the **exits** are located on the same **storey**, and
 - (c) the manual pull station is readily accessible and visible from each **exit**.
- (3) A manual pull station shall be
- (a) red in colour,
 - (b) readily accessible and unobstructed,
 - (c) readily visible, and
 - (d) unless otherwise **approved**, installed at a height not less than 1.2 m and not more than 1.5 m, measured vertically from the finished floor surface.

Alarm signalling devices

- 9.9.4.4. (1) Alarm signalling devices shall be
- (a) installed on all **storeys**, unless otherwise **approved**,
 - (b) located so that the **alarm signal** and **alert signal** when sounded, may be heard throughout the **building** over all normal sounds at any time, and
 - (c) be distinctive in sound.

Annunciator panels

- 9.9.4.5. (1) In a **building** that is 4 or more **storeys** in **building height** or has a **total area** of 4000 m² or more, an annunciator panel shall
- (a) be installed near the main entrance, in the main reception area or other **approved** location that is readily accessible to the **fire department**, and
 - (b) indicate all floors with not more than one floor per zone indicated.
- (2) **Fire detectors** required in Clauses 9.9.4.2.(2)(b) and (c) may be considered as part of the adjoining floor for the purposes of Clause (1)(b) of this Article.

Shutdown of air handling systems

9.9.4.6. Recirculating air handling systems that serve more than one **guest suite** or **storey** shall be arranged to shut down upon actuation of the fire alarm system, except where continued operation of the air handling system serves as part of a smoke control system.

Trouble signals

- 9.9.4.7. (1) A trouble signal sounding device and, where the trouble signal sounding device has a silencing switch, a trouble light shall be installed in
- (a) the main reception area, or
 - (b) a continuously supervised area.

Operation

9.9.4.8. Fire alarm systems shall operate in conformance with Article 3.2.4.4. of the **1994 Building Code**, unless otherwise **approved**.

Continuity

9.9.4.9. Each **building** shall not have more than one fire alarm system, unless otherwise **approved**.

Electrical supervision

9.9.4.10. Fire alarm systems shall be electrically supervised.

Emergency power

9.9.4.11. (1) Fire alarm systems shall be provided with an emergency power supply in conformance with Article 3.2.7.8. of the **1994 Building Code**.

(2) An existing emergency power supply that is capable of providing supervisory power for not less than 24 h and emergency power under full load for not less than 5 min at the end of the 24 h period is deemed to be in compliance with Sentence (1).

Primary power

(3) Fire alarm system connections to the primary source of power shall be on a separate circuit equipped with separate circuit breakers or fuse switches that are located in a secure area.

(4) When a **building** is not supplied with primary power from a public utility, two **approved** independent sources of power shall be provided to the fire alarm system.

Installation

9.9.4.12. (1) Where a fire alarm system is required to be installed, extended or modified by this Section, the installation, extension or modification shall be in conformance with CAN/ULC-S524, "Standard for the Installation of Fire Alarm Systems".

(2) Where a fire alarm system has been installed, extended or modified as required by this Section, the system or portion of the system shall be **tested** in conformance with CAN/ULC-S537, "Standard for Verification of Fire Alarm Systems".

(3) Sentences (1) and (2) do not apply to existing fire alarm system components.

Smoke alarms

9.9.4.13. (1) **Smoke alarms** shall be installed in each **guest suite**.

(2) **Smoke alarms** shall meet the requirements of

- (a) CAN/ULC-S531, "Standard for Smoke Alarms", and
- (b) CAN/ULC-S553, "Standard for the Installation of Smoke-Alarms".

(3) **Smoke alarms** shall be installed with permanent connections to an electrical circuit and shall have no disconnect switches between the overcurrent device and the **smoke alarm**.

(4) Despite Sentence (3), battery-operated **smoke alarms** may be used.

(5) Unless otherwise **approved**, at least one **smoke alarm** shall be installed on each floor of a multi-level **guest suite** and the **smoke alarms** shall be interconnected so that the actuation of one **smoke alarm** will cause all **smoke alarms** within the **guest suite** to sound.

Voice communication systems

9.9.4.14. (1) A voice communication system shall be provided in each **building** where the vertical distance between the floor of the top **storey** and **grade** exceeds 36 m.

(2) The voice communication system required by Sentence (1) shall

- (a) consist of loudspeakers operated from the central alarm and control facility or other location that is accessible to the **fire department** and **supervisory staff** appointed under Section 2.8 and that is **approved**,

- (b) provide a clear verbal signal throughout the **building**, except for elevator cars, and
- (c) provide for automatic silencing of the fire **alarm signals** or **alert signals** when the loudspeakers are in use.

(3) **Approved** existing public address systems compatible with the fire safety plan required under Section 2.8 and capable of communicating instructions to the **building** occupants are deemed to be in compliance with Sentences (1) and (2).

Subsection 9.9.5. Suppression

Access for fire fighting

9.9.5.1. (1) Access routes for fire fighting shall be provided in conformance with the requirements of Articles 3.2.5.5. to 3.2.5.7. of the **1994 Building Code**.

(2) Sentence (1) does not apply where the **building** is **sprinklered**.

(3) In **buildings** not greater than 6 **storeys** in **building height**, existing access routes are deemed to comply with Sentence (1) if they

- (a) have a clear width of at least 6 m,
- (b) are capable of supporting the expected loads imposed by fire fighting equipment and surfaced with concrete, asphalt or other material that provides accessibility under all climatic conditions,
- (c) are located not less than 3 m and not more than 15 m from the principal entrance, and
- (d) are connected with a public thoroughfare.

(4) Despite Sentence (1), alternative methods may be **approved** where, in the opinion of the **Chief Fire Official**, they provide protection for life safety similar to the protection provided by compliance with Sentence (1).

Standpipe systems

9.9.5.2. (1) In **buildings** that are greater than 3 **storeys** in **building height**, a standpipe and hose system shall be installed in conformance with Subsection 3.2.9. of the **1994 Building Code**.

(2) A standpipe and hose system installed in conformance with Sentences (3) to (6) is deemed to be in compliance with Sentence (1).

(3) Hose stations shall

- (a) be located so that all areas
 - (i) are protected by a hose station on the same **storey**, and
 - (ii) can be reached by a hose stream and are within 6 m of a hose nozzle when the hose is extended,
- (b) be provided with a 38 mm hose valve, unless otherwise **approved**,
- (c) be equipped with not more than 30 m of 38 mm hose on a hose **rack**, unless otherwise **approved**,
- (d) have the hose attached, ready for use at all times and equipped with a shut-off combination fog and straight stream nozzle,
- (e) be within easy reach of a person standing on the floor, with the hose valve connection located no more than 1.5 m from the floor, and
- (f) be located
 - (i) in corridors where possible, and
 - (ii) in hose cabinets.

(4) Despite Subclause (3)(a)(i), a penthouse may be protected by a hose station located in the **storey** below.

(5) A standpipe and hose system shall

- (a) have an adequate water supply capable of producing a hose stream of at least 6 m from the hose nozzle at the highest fire hose outlet, and

- (b) be served by at least one **fire department** connection located on the outside of the **building** adjacent to a **street**, readily accessible to the **fire department**.
- (6) Hose cabinets shall be
 - (a) of sufficient size to accommodate a hose, hose **rack**, hose valve and portable extinguisher,
 - (b) conspicuously identified, by lettering at least 50 mm high or by the provision of a sufficiently large glass panel in the door to ensure that the equipment in the cabinet is readily visible,
 - (c) equipped with a door without locks, constructed to open easily, unless otherwise **approved**, and
 - (d) so located that the door, when open, will not obstruct any doorway.

Firefighters' elevators

9.9.5.3. (1) At least one elevator shall be provided for use by firefighters in conformance with Articles 3.2.6.8. and 3.2.6.9. of the **1994 Building Code** in **buildings** where the vertical distance between the floor of the top **storey** and **grade** exceeds 18 m.

- (2) An elevator is deemed to be in compliance with Sentence (1) where
 - (a) the elevator is capable of providing transportation from the **street** floor to every floor served by the elevator system,
 - (b) the elevator is identified on the **street** floor as an elevator provided for use by firefighters,
 - (c) the elevator satisfies the requirements of Sentences 3.2.6.8.(1) to (4) of the **1994 Building Code**, and
 - (d) other elevator cabs in the same shaft as the elevator for use by firefighters satisfy the requirements of Sentences 3.2.6.8.(1) and (2) of the **1994 Building Code**.
- (3) An elevator system that requires transfer from one elevator to another to reach all floors above **grade** is deemed to be in compliance with Sentence (1) where
 - (a) the elevators are identified on the **street** floor and the transfer floor as elevators provided for firefighters' use,
 - (b) the elevators satisfy the requirements of Sentences 3.2.6.8.(1) to (4) of the **1994 Building Code**,
 - (c) emergency power is provided that is capable of operating one elevator car at a time, in **buildings** where the vertical distance between the floor of the top **storey** and **grade** exceeds 36 m, and
 - (d) other elevator cabs in the same shaft as the elevator for use by firefighters satisfy the requirements of Sentences 3.2.6.8.(1) and (2) of the **1994 Building Code**.

Sprinkler systems

9.9.5.4. Unless otherwise **approved**, where a **building** or portion thereof is required to be **sprinklered**, the sprinkler system shall be designed and constructed in conformance with Articles 3.2.5.13. to 3.2.5.16. of the **1994 Building Code**.

Emergency power supply

9.9.5.5. (1) Unless otherwise **approved**, emergency electric power provided by generators for fire alarm systems referred to in Sentence 9.9.4.1.(1) and for elevator cars referred to in Clause 9.9.5.3.(3)(c) shall be provided in accordance with CSA-C282, "Emergency Electrical Power Supply for Buildings".

(2) Unless otherwise **approved**, emergency electric power required for emergency lighting systems required in Sentence 9.9.3.14.(1) shall be installed in conformance with CSA-C282, "Emergency Electrical Power Supply for Buildings" or CSA-C22.2 No. 141, "Emergency Lighting Equipment", as applicable.

DIVISION C

ADMINISTRATIVE PROVISIONS

TABLE OF CONTENTS

SECTION 1.1	GENERAL
Subsection 1.1.1.	Chief Fire Official
SECTION 1.2	QUALIFICATIONS
Subsection 1.2.1.	Qualifications and Responsibilities of Persons Performing Work on Fire Alarm Systems
Subsection 1.2.2.	Qualifications and Responsibilities of Persons Performing Work on Interconnected Smoke Alarm Systems
Subsection 1.2.3.	Qualifications of the Person who Ensures Implementation of a Fire Safety Plan under Subsection 2.8.2. of Division B
Subsection 1.2.4.	Qualifications of Chief Fire Officials
SECTION 1.3	ADMINISTRATIVE PROVISIONS
Subsection 1.3.1.	Required Testing
Subsection 1.3.2.	Alternative Solutions

SECTION 1.1 GENERAL

Subsection 1.1.1. Chief Fire Official

Appointment by Fire Marshal

1.1.1.1. (1) The Fire Marshal may appoint persons who are assistants to the Fire Marshal to be **Chief Fire Officials** for the purposes and subject to the limitations and conditions as are set out in the appointment.

(2) An appointment made under Sentence (1) may grant to the person appointed the exclusive authority to exercise all or any of the powers and perform all or any of the duties of a **Chief Fire Official** with respect to any class or classes of **building** or **occupancy** or within the territorial area specified in the appointment and, in such case, no other **Chief Fire Official** shall exercise such powers or perform such duties.

Appointment by Fire Chief

1.1.1.2. The Municipal Fire Chief may appoint a member or members of the **fire department** who are assistants to the Fire Marshal to be **Chief Fire Officials** for the purposes and subject to the limitations and conditions as are set out in the appointment.

SECTION 1.2 QUALIFICATIONS

Subsection 1.2.1. Qualifications and Responsibilities of Persons Performing Work on Fire Alarm Systems

Application

1.2.1.1. (1) This Subsection applies to every person who

- (a) performs annual **tests** or annual **inspections** of a fire alarm system required under Article 6.3.2.2. of Division B,
- (b) performs the **testing** and maintenance of fire alarm system components that interconnect with other fire protection and life safety systems required under Article 6.10.1.1. of Division B, and
- (c) repairs, replaces or alters components of a fire alarm system.

Qualifications and responsibilities

1.2.1.2. (1) A person who performs the work described in Article 1.2.1.1.

- (a) must have successfully completed a program or course acceptable to the Fire Marshal,
- (b) shall, at the request of the **owner** or the **Chief Fire Official**, produce for inspection a copy of a certificate or document attesting to the successful completion of a program or course referred to in Clause (a), and
- (c) shall, as applicable, perform the **inspection**, **test**, repair, replacement and alteration in accordance with Article 6.3.1.8. and Subsection 6.3.2. of Division B and perform the **testing** and maintenance of fire alarm system components that interact with life safety systems in accordance with Article 6.10.1.1. of Division B.

(2) Despite Sentence (1), a person who has not successfully completed the required program or course may perform the work described in Clause (1)(c) provided that

- (a) the work is done under the supervision of a person who has successfully completed a program or course required by Clause (1)(a),

- (b) no more than two persons work under the supervision of the person referred to in Clause (a) at the same time, and
- (c) the supervision is provided at the work site.

(3) A person supervising another under Sentence (2) shall advise the **owner** in writing that the work has been completed in accordance with Article 6.3.1.8. and Subsection 6.3.2. of Division B.

Responsibility

1.2.1.3. (1) Despite Article 1.2.1.1. of Division A, it is the person who performs the work described in Article 1.2.1.1. of this Division who is responsible for complying with Sentence 1.2.1.2.(1) of this Division; however, if Sentence 1.2.1.2.(2) of this Division applies, it is the person who supervises the work under Sentence 1.2.1.2.(2) of this Division who is responsible for complying with Sentence 1.2.1.2.(1) of this Division, as if he or she were the person performing the work.

(2) The **owner** shall ensure that the requirements of Article 1.2.1.2. are met.

Subsection 1.2.2. Qualifications and Responsibilities of Persons Performing Work on Interconnected Smoke Alarm Systems

Application

1.2.2.1. This Subsection applies to every person who performs annual **tests** of an interconnected **smoke alarm** system required under Article 6.3.2.6. of Division B and every person who maintains such an interconnected **smoke alarm** system.

Qualifications and responsibilities

1.2.2.2. (1) A person who performs the work described in Article 1.2.2.1.

- (a) must have successfully completed a program or course acceptable to the Fire Marshal,
- (b) shall, at the request of the **owner** or the **Chief Fire Official**, produce for inspection a copy of a certificate or document attesting to the successful completion of a program or course referred to in Clause (a), and
- (c) shall perform the **test** and maintenance in accordance with Article 6.3.2.6. of Division B.

(2) Despite Sentence (1), a person who has not successfully completed the required program or course may perform the work described in Sentence (1) provided that

- (a) the work is done under the supervision of a person who has successfully completed a program or course required in Clause (1)(a),
- (b) no more than two persons work under the supervision of the person referred to in Clause (a) at the same time, and
- (c) the supervision is provided at the work site.

(3) A person supervising another under Sentence (2) shall advise the **owner** in writing that the work has been completed in accordance with Article 6.3.2.6. of Division B.

Responsibility

1.2.2.3. (1) Despite Article 1.2.1.1. of Division A, it is the person who performs the work described in Article 1.2.2.1. of this Division who is responsible for complying with Sentence 1.2.2.2.(1) of this Division; however, if Sentence 1.2.2.2.(2) of this Division applies, it is the person who supervises the work under Sentence 1.2.2.2.(2) of this Division who is responsible for complying with Sentence 1.2.2.2.(1) of this Division, as if he or she were the person performing the work.

(2) The **owner** shall ensure that the requirements of Article 1.2.2.2. are met.

Subsection 1.2.3. Qualifications of the Person who Ensures Implementation of a Fire Safety Plan under Subsection 2.8.2. of Division B

Application

1.2.3.1. (1) Article 1.2.3.2. applies to

- (a) a person designated by the **owner** of a **building** containing a **care occupancy**, a **care and treatment occupancy** or a **retirement home** to be responsible for ensuring that the fire safety plan required under Subsection 2.8.2. of Division B is implemented, or
- (b) the **owner** of a **building** containing a **care occupancy**, a **care and treatment occupancy** or a **retirement home**, if the **owner** has not designated another person to be responsible for ensuring that the fire safety plan required under Subsection 2.8.2. of Division B is implemented.

Qualifications

1.2.3.2. (1) A person referred to in Sentence 1.2.3.1.(1)

- (a) must have successfully completed a program or course acceptable to the Fire Marshal, and
- (b) shall, at the request of the **Chief Fire Official**, produce for inspection a certificate or other document attesting to his or her successful completion of that program or course.

(2) REVOKED: O. Reg. 87/25, s. 93.

Responsibility if person designated

1.2.3.3. (1) If an **owner** has designated a person to be responsible for ensuring that a fire safety plan is implemented

- (a) the designated person is responsible for complying with Article 1.2.3.2. of this Division, despite Article 1.2.1.1. of Division A, and
- (b) the **owner** is responsible for ensuring that the designated person complies with Article 1.2.3.2. of this Division.

Subsection 1.2.4. Qualifications of Chief Fire Officials

Application

1.2.4.1. This Subsection applies to every **Chief Fire Official** who is responsible for **approving** a fire safety plan for a **building** containing a **care occupancy**, a **care and treatment occupancy** or a **retirement home**.

Qualifications

1.2.4.2. (1) A person referred to in Article 1.2.4.1.

- (a) must have successfully completed a program or course acceptable to the Fire Marshal, and
- (b) shall, at the request of the **owner**, produce for inspection a certificate or other document attesting to his or her successful completion of that program or course.

(2) REVOKED: O. Reg. 87/25, s. 94.

Responsibility

1.2.4.3. A person referred to in Article 1.2.4.1. of this Division is responsible for complying with Article 1.2.4.2. of this Division, despite Article 1.2.1.1. of Division A.

SECTION 1.3 ADMINISTRATIVE PROVISIONS

Subsection 1.3.1. Required Testing

Tests by owner

1.3.1.1. Where a **building** or its contents must be **tested** for compliance with this Code, the **tests** shall be carried out by the **owner** or the **owner's** agent within such reasonable time as the **Chief Fire Official** may determine.

Tests by Chief Fire Official

1.3.1.2. (1) The **tests** referred to in Article 1.3.1.1. may also be carried out by the **Chief Fire Official**.

(2) The **Chief Fire Official** shall only take such samples as are necessary in the circumstances in order to carry out the **tests** referred to in Article 1.3.1.1.

Subsection 1.3.2. Alternative Solutions

Approval

1.3.2.1. An **alternative solution** shall be submitted to the **Chief Fire Official** for review and **approval**.

Documentation

1.3.2.2. (1) An **alternative solution** submitted to the **Chief Fire Official** under Article 1.3.2.1. shall be accompanied by supporting documentation that demonstrates that the **alternative solution** meets the **objectives** and satisfies the **functional statements** attributed to the **acceptable solution** it is proposed to replace, as set out in Division A and OFM Fire Code Supplement FCS-1, "Objectives and Functional Statements Attributed to Acceptable Solutions".

(2) The documentation referred to in Sentence (1) shall include

- (a) an analysis outlining the analytical methodology and rationale used to determine that a proposed **alternative solution** will achieve at least the minimum level of performance intended by the applicable **acceptable solution** in Division B in respect of the **objectives** and **functional statements** attributed to the **acceptable solution** as identified in Division A and OFM Fire Code Supplement FCS-1, "Objectives and Functional Statements Attributed to Acceptable Solutions", and
- (b) information concerning any additional **check, inspection, test**, maintenance or operational requirements, including any commissioning requirements, and schedules not otherwise specifically addressed in Division B.

(3) The analysis referred to in Clause (2)(a) shall identify the **acceptable solution** that the **alternative solution** is proposed to replace, the **objectives** and **functional statements** attributed to that **acceptable solution**, and any assumptions, limiting or restricting factors, engineering studies or **building** performance parameters in order to allow for an assessment of compliance with this Code by the **Chief Fire Official**.

(4) The information provided under Sentence (3) shall be in sufficient detail to convey the design intent and to support the validity, accuracy, relevance and precision of the analysis.

(5) An **alternative solution** shall bear the signature and seal of a **Professional Engineer** or **Architect**, or both.

Review

1.3.2.3. (1) The **Chief Fire Official** shall, within 45 days after the receipt of an **alternative solution** submitted under Article 1.3.2.2., review the **alternative solution** for compliance with this Code and notify the **owner** or the **owner's** agent of the decision in writing.

(2) Where an **alternative solution** is not **approved**, the **Chief Fire Official** shall include the reasons in the decision.

(3) Notification shall be served either personally or by mail.

(4) Where notification is by mail, it is deemed to have been served on the fifth day after the date of mailing.

(5) An **owner** or an **owner's** agent who feels aggrieved by a decision not to **approve** an **alternative solution** may, within 30 days after receipt of the refusal, appeal the decision in the same manner as though it were an **Order**.

Implementation

1.3.2.4. **Approved alternative solutions** referred to in this Subsection and the requirements referred to in Clause 1.3.2.5.(3)(b) shall be implemented.

Records

1.3.2.5. (1) Documentation for every

(a) **approved alternative solution** to this Code, and

(b) alternative solution, as defined in the **Building Code**, with respect to fire safety

shall be kept on the premises to which it relates and be made available to the **Chief Fire Official** upon request.

(2) The documentation referred to in Sentence (1) shall be retained for as long as necessary to demonstrate compliance with this Code and the **Building Code**, as applicable.

(3) The **check, inspection, test**, maintenance and operational requirements

(a) referred to in Clause 1.3.2.2.(2)(b), or

(b) forming part of an alternative solution, as defined in the **Building Code**, with respect to fire safety, where such requirements are not otherwise specifically addressed in Division B

shall be included in the fire safety plan where such a plan is required under Section 2.8 of Division B.

ALPHABETICAL LISTING

This Alphabetical Listing is a compilation of topics contained in the Fire Code and is provided only for the convenience of users. All numerical references are to the Fire Code, Ontario Regulation 213/07, current to January 1, 2026.

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
A	
Aboveground Storage Tanks - Installation	Subsection 4.3.2.
Aboveground Storage Tanks - Normal and Emergency Venting	Subsection 4.3.4.
Aboveground Storage Tanks - Openings Other than Vents	Subsection 4.3.6.
Aboveground Storage Tanks - Out of Service	Subsection 4.3.16.
Aboveground Storage Tanks - Secondary Containment	Subsection 4.3.7.
Aboveground Storage Tanks - Supports, Foundations and Anchorage	Subsection 4.3.3.
Aboveground Storage Tanks - Vent Piping	Subsection 4.3.5.
Aerosol Products	Subsection 3.2.5.
Alarm and Voice Communication Systems for Life Safety	Section 6.3
Alarm and Voice Communication Systems for Life Safety - Check, Inspect and Test	Subsection 6.3.2.
Alarm and Voice Communication Systems for Life Safety - General	Subsection 6.3.1.
Ammonium Nitrate	Subsection 3.2.3.
Assembly Occupancies	Section 9.2
Assembly Occupancies - Application and General	Subsection 9.2.1.
Assembly Occupancies - Containment	Subsection 9.2.2.
Assembly Occupancies - Fire Alarm and Detection	Subsection 9.2.4.
Assembly Occupancies - Means of Egress	Subsection 9.2.3.
Assembly Occupancies - Suppression	Subsection 9.2.5.
Automobile Undercoating	Subsection 5.14.5.
B	
Boarding, Lodging and Rooming Houses	Section 9.3
Boarding, Lodging and Rooming Houses - Application and General	Subsection 9.3.1.
Boarding, Lodging and Rooming Houses - Containment	Subsection 9.3.2.
Boarding, Lodging and Rooming Houses - Fire Alarm and Detection	Subsection 9.3.4.
Boarding, Lodging and Rooming Houses - Means of Egress	Subsection 9.3.3.
Boarding, Lodging and Rooming Houses - Suppression	Subsection 9.3.5.
Bowling Alleys	Subsection 5.14.9.

ALPHABETICAL LISTING

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
Buildings Higher Than 6 Storeys in Building Height with Residential Occupancies	Section 9.6
Buildings Up To and Including 6 Storeys in Building Height with Residential Occupancies	Section 9.5
Buildings with a Care Occupancy	Section 9.7
Buildings with a Retirement Home	Section 9.7
Bulk Plants	Section 4.7
Bulk Plants - Dispensing	Subsection 4.7.3.
Bulk Plants - Fire Protection	Subsection 4.7.5.
Bulk Plants - Loading and Unloading Facilities	Subsection 4.7.4.
Bulk Plants - Scope	Subsection 4.7.1.
Bulk Plants - Spill Control	Subsection 4.7.6.
Bulk Plants - Storage	Subsection 4.7.2.
C	
Carbon Monoxide Alarms - Application and Responsibility	Subsection 2.16.1.
Carbon Monoxide Alarms - Installation	Section 2.16
Carbon Monoxide Alarms - Installation Requirements	Subsection 2.16.2.
Carbon Monoxide Alarms – Maintenance and Testing	Subsection 6.3.4.
Care Occupancy	Section 9.7
Care Occupancy - Application and General	Subsection 9.7.1.
Care Occupancy - Containment	Subsection 9.7.2.
Care Occupancy - Fire Alarm and Detection	Subsection 9.7.4.
Care Occupancy - Means of Egress	Subsection 9.7.3.
Care Occupancy - Suppression	Subsection 9.7.5.
Cellulose Nitrate Plastics	Section 5.4
Cellulose Nitrate Plastics - Cellulose Nitrate Motion Picture Film	Subsection 5.4.4.
Cellulose Nitrate Plastics - Displays	Subsection 5.4.1.
Cellulose Nitrate Plastics - Fire Protection	Subsection 5.4.5.
Cellulose Nitrate Plastics - Manufacture	Subsection 5.4.2.
Cellulose Nitrate Plastics - Storage of Finished Products	Subsection 5.4.3.

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
Classification - Flammable and Combustible Liquids	Subsection 4.1.2.
Closures	Subsection 2.2.3.
Combustible Fibres	Subsection 3.2.4.
Compliance	Section 1.2 [Div. A]
Compressed Gas Cylinders	Section 5.6
Compressed Gas Cylinders - General	Subsection 5.6.1.
Compressed Gas Cylinders - Storage	Subsection 5.6.2.
Container Storage and Handling	Section 4.2
Container Storage and Handling - Assembly and Residential Occupancies	Subsection 4.2.4.
Container Storage and Handling - Business and Personal Services, Educational, Care, Care and Treatment and Detention Occupancies	Subsection 4.2.6.
Container Storage and Handling - Cabinets for Container Storage	Subsection 4.2.10.
Container Storage and Handling - Containers and Portable Tanks	Subsection 4.2.3.
Container Storage and Handling - General	Subsection 4.2.2.
Container Storage and Handling - Incidental Use	Subsection 4.2.8.
Container Storage and Handling - Industrial Occupancies	Subsection 4.2.7.
Container Storage and Handling - Mercantile Occupancies	Subsection 4.2.5.
Container Storage and Handling - Outdoor Container Storage	Subsection 4.2.11.
Container Storage and Handling - Rooms for Container Storage and Dispensing	Subsection 4.2.9.
Container Storage and Handling - Scope	Subsection 4.2.1.
Container Storage and Handling - Self-Service Storage Buildings	Subsection 4.2.12.
Corrosion Protection of Piping Systems	Subsection 4.5.3
Corrosion Protection of Underground Steel Storage Tanks	Subsection 4.3.10.
Covered Malls	Section 2.12
D	
Dangerous Goods - Indoor Storage	Subsection 3.2.7.
Dangerous Goods - Outdoor Storage	Subsection 3.3.4.
Day Care Centres	Section 2.10
Day Care Centres - Application	Subsection 2.10.1.
Day Care Centres - Combustible Materials	Subsection 2.10.2.

ALPHABETICAL LISTING

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
Day Care Centres - Staffing	Subsection 2.10.3.
Decommissioning	Section 6.9
Decorative Materials	Section 2.3
Demolition	Section 8.1
Demolition - Application	Subsection 8.1.1.
Demolition - Requirements	Subsection 8.1.2.
Design, Construction and Use of Storage Tanks	Subsection 4.3.1.
Dip Tanks	Section 5.13
Dip Tanks - Construction	Subsection 5.13.2.
Dip Tanks - Control of Fire Hazards	Subsection 5.13.5.
Dip Tanks - Fire Protection	Subsection 5.13.6.
Dip Tanks - Location	Subsection 5.13.1.
Dip Tanks - Overflow and Drain Pipes	Subsection 5.13.3.
Dip Tanks - Salvage Tanks	Subsection 5.13.4.
Distilleries	Section 4.10
Distilleries - Fire Protection	Subsection 4.10.8.
Distilleries - General	Subsection 4.10.2.
Distilleries - Piping and Pumping Systems	Subsection 4.10.5.
Distilleries - Scope	Subsection 4.10.1.
Distilleries - Spill Control	Subsection 4.10.7.
Distilleries - Storage	Subsection 4.10.4.
Distilleries - Storage Tanks and Containers	Subsection 4.10.3.
Distilleries - Ventilation	Subsection 4.10.6.
Door Hardware	Subsection 2.7.2.
Dry Powder-Coating Using Fluidized Beds	Subsection 5.14.6.
Drycleaning and Dyeing Plants	Subsection 5.14.10.
Dust Producing Processes	Section 5.3
Dust Producing Processes - General	Subsection 5.3.1.
Dust Producing Processes - Grain Handling and Storage Facilities	Subsection 5.3.3.
Dust Producing Processes - Woodworking Operations	Subsection 5.3.2.

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
E	
Electrical Equipment Vaults	Subsection 2.6.4.
Electrical Hazards	Subsection 2.4.6.
Electrical Installations - Flammable and Combustible Liquids	Subsection 4.1.4.
Electrostatic Detearing Processes	Subsection 5.14.4.
Emergency Lighting	Subsection 2.7.3.
Emergency Lighting Unit Equipment	Section 6.7
Emergency Planning	Section 2.8
Emergency Planning - Fire Drills	Subsection 2.8.3.
Emergency Planning - Fire Safety Plan	Subsection 2.8.2.
Emergency Planning - General	Subsection 2.8.1.
Emergency Power Systems	Section 6.7
Emergency Power Systems, Unit Equipment for Emergency Lighting and Exit Signs	Section 6.7
Encapsulation Materials	Subsection 2.2.4.
Exemptions for Farms	Section 1.3 [Div. A]
Exit Lighting	Subsection 2.7.3.
Exit Lighting and Emergency Lighting	Subsection 2.7.3.
Exit Signs	Section 6.7
Explosives	Subsection 5.1.1.
Explosives, Fireworks and Pyrotechnics	Subsection 5.1.1.
F	
Farm Buildings	Section 2.17
Farm Buildings - Ambient Conditions	Subsection 2.17.3.
Farm Buildings - Fire Hazards and Control	Subsection 2.17.1.
Farm Buildings - Signage	Subsection 2.17.2.
Farms - Exemptions	Section 1.3 [Div. A]
Fire Access Routes	Section 2.5
Fire Alarm and Voice Communication Systems - Check, Inspect and Test	Subsection 6.3.2.
Fire Alarm and Voice Communication Systems - General	Subsection 6.3.1.

ALPHABETICAL LISTING

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
Fire Alarm and Voice Communication Systems for Life Safety	Section 6.3
Fire Department Access to Buildings	Section 2.5
Fire Hazards	Section 2.4
Fire Hazards - Combustible Materials	Subsection 2.4.1.
Fire Hazards - Electrical Hazards	Subsection 2.4.6.
Fire Hazards - Open Flames	Subsection 2.4.4.
Fire Hazards - Smoking	Subsection 2.4.3.
Fire Hazards - Use of Hazardous Materials	Subsection 2.4.5.
Fire Hazards - Vacant Buildings	Subsection 2.4.7.
Fire Prevention and Protection - Flammable and Combustible Liquids	Subsection 4.1.5.
Fire Pumps and Reservoirs	Subsection 6.6.3.
Fire Separations	Section 2.2
Fire Separations - Closures	Subsection 2.2.3.
Fire Separations - Encapsulation Materials	Subsection 2.2.4.
Fire Separations - Major Occupancies	Subsection 2.2.1.
Fire Separations - Rooms and Spaces	Subsection 2.2.2.
Fireworks	Subsection 5.1.1.
Flammable and Combustible Liquids - Classification	Subsection 4.1.2.
Flammable and Combustible Liquids - Electrical Installations	Subsection 4.1.4.
Flammable and Combustible Liquids - Fire Prevention and Protection	Subsection 4.1.5.
Flammable and Combustible Liquids - Flash Point	Subsection 4.1.3.
Flammable and Combustible Liquids - General	Section 4.1
Flammable and Combustible Liquids - Handling of Flammable and Combustible Liquids	Subsection 4.1.8.
Flammable and Combustible Liquids - Scope	Subsection 4.1.1.
Flammable and Combustible Liquids - Spill Control and Drainage Systems	Subsection 4.1.6.
Flammable and Combustible Liquids - Ventilation	Subsection 4.1.7.
Flash Point - Flammable and Combustible Liquids	Subsection 4.1.3.
Floor Finishing	Subsection 5.14.8.
Flow-Coating Operations	Subsection 5.14.2.
Fuel-Dispensing Stations	Section 4.6
Fuel-Dispensing Stations - Delivery Hose and Nozzles	Subsection 4.6.5.

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
Fuel-Dispensing Stations - Dispensing Systems	Subsection 4.6.3.
Fuel-Dispensing Stations - Fire Prevention and Protection	Subsection 4.6.9
Fuel-Dispensing Stations - Remote Pumping Systems	Subsection 4.6.6.
Fuel-Dispensing Stations - Scope	Subsection 4.6.1.
Fuel-Dispensing Stations - Shut-off Devices	Subsection 4.6.4.
Fuel-Dispensing Stations - Spill Control	Subsection 4.6.7
Fuel-Dispensing Stations - Storage and Handling	Subsection 4.6.2.
Fuel-Dispensing Stations - Supervision and Dispensing Procedures	Subsection 4.6.8.
Fumigation and Thermal Insecticidal Fogging	Section 5.16
Fumigation and Thermal Insecticidal Fogging - Application	Subsection 5.16.1.
Fumigation and Thermal Insecticidal Fogging - Safety Precautions	Subsection 5.16.2.
Functional Statements	Section 3.2 [Div. A]
Functional Statements - Application	Subsection 3.1.1. [Div. A]
Furnishing	Section 2.3
H	
Handling of Flammable and Combustible Liquids	Subsection 4.1.8.
Hazardous Extraction Operations	Subsection 5.14.11.
Hazardous Materials, Processes and Operations - Electrical Installations	Subsection 5.1.3.
Hazardous Materials, Processes and Operations - General	Section 5.1
Hazardous Materials, Processes and Operations - Means of Egress	Subsection 5.1.2.
Hazardous Materials, Processes and Operations - Ventilation	Subsection 5.1.4.
Health Care Facilities	Section 9.4
Health Care Facilities - Application and General	Subsection 9.4.1.
Health Care Facilities - Containment	Subsection 9.4.2.
Health Care Facilities - Fire Alarm and Detection	Subsection 9.4.4.
Health Care Facilities - Means of Egress	Subsection 9.4.3.
Health Care Facilities - Suppression	Subsection 9.4.5.
Heating of Piping Systems	Subsection 4.5.8.
Heating, Ventilating and Air-Conditioning	Subsection 2.6.1.
High Buildings - Central Alarm and Control Facilities and Voice Communication Systems for Life Safety	Subsection 7.2.4.

ALPHABETICAL LISTING

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
High Buildings - Elevators	Subsection 7.2.2.
High Buildings - Fire Emergency Systems - Checking, Inspection, Testing, Notification and Maintenance	Section 7.2
High Buildings - Intervals Between Tests	Subsection 7.2.1.
High Buildings - Maintenance	Subsection 7.2.5.
High Buildings - Maintenance of Fire Emergency Systems	Section 7.1
High Buildings - Smoke Control Equipment - Inspection, Testing and Maintenance	Section 7.3
High Buildings - Venting to Aid Fire Fighting	Subsection 7.2.3.
Hose Stations and Equipment - Maintenance and Inspection	Subsection 6.4.2.
Hot Surface Applications	Section 5.11
Hot Surface Applications - Application	Subsection 5.11.1.
Hot Surface Applications - General	Subsection 5.11.2.
Hot Works	Section 5.17
Hot Works - Application	Subsection 5.17.1.
Hot Works - Prevention of Fires	Subsection 5.17.3.
Hot Works - Use and Maintenance of Equipment	Subsection 5.17.2.
Hotels	Section 9.9
Hotels - Application and General	Subsection 9.9.1.
Hotels - Containment	Subsection 9.9.2.
Hotels - Fire Alarm and Detection	Subsection 9.9.4.
Hotels - Means of Egress	Subsection 9.9.3.
Hotels - Suppression	Subsection 9.9.5.
Hydrants	Subsection 6.6.4.
Hydrants - Inspection	Subsection 6.6.5.
Hydrants - Uniform Marking	Subsection 6.6.6.
I	
Identification of Piping Systems	Subsection 4.5.4.
Incinerators	Subsection 2.6.3.
Indoor and Outdoor Storage - Application	Subsection 3.1.1.
Indoor and Outdoor Storage - Dangerous Goods	Subsection 3.1.2.

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
Indoor and Outdoor Storage - General	Section 3.1
Indoor General Storage	Subsection 3.2.2.
Indoor Public Amusement Areas	Subsection 2.7.4.
Indoor Storage	Section 3.2
Indoor Storage of Aerosol Products	Subsection 3.2.5.
Indoor Storage of Ammonium Nitrate	Subsection 3.2.3.
Indoor Storage of Combustible Fibres	Subsection 3.2.4.
Indoor Storage of Dangerous Goods	Subsection 3.2.7.
Indoor Tire Storage	Subsection 3.2.1.
Industrial Ovens - Application	Subsection 5.18.1.
Industrial Ovens - Construction	Subsection 5.18.3.
Industrial Ovens - Fire Protection	Subsection 5.18.6.
Industrial Ovens - Location	Subsection 5.18.2.
Industrial Ovens - Maintenance	Subsection 5.18.5.
Industrial Ovens - Ventilation	Subsection 5.18.4.
Industrial Ovens for Baking and Drying Processes	Section 5.18
Industrial Trucks	Section 3.4
Industrial Trucks	Subsection 3.4.2.
Industrial Trucks - General	Subsection 3.4.1.
Installation of Carbon Monoxide Alarms	Section 2.16
Installation of Outside Aboveground Storage Tanks	Subsection 4.3.2.
Installation of Smoke Alarms	Section 2.13
Installation of Storage Tanks inside Buildings	Subsection 4.3.13.
Installation of Underground Storage Tanks	Subsection 4.3.8.
Insulation and Re-Insulation	Section 2.11
Integrated Fire Protection and Life Safety Systems	Section 6.10
Interior Furnishing	Section 2.3
Interior Furnishing, Furnishing and Decorative Materials	Section 2.3
Interior Furnishing, Furnishing and Decorative Materials - Textile Flammability	Subsection 2.3.2.

ALPHABETICAL LISTING

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
J	
Joints in Piping Systems	Subsection 4.5.5.
L	
Laboratories	Section 5.5
Laboratories - Application	Subsection 5.5.1.
Laboratories - Construction	Subsection 5.5.2.
Laboratories - Dangerous Goods	Subsection 5.5.5.
Laboratories - Existing Laboratories	Subsection 5.5.6.
Laboratories - Fire Prevention and Protection	Subsection 5.5.3.
Laboratories - Ventilation	Subsection 5.5.4.
Leak Detection Monitoring of Storage Tanks and Piping Systems	Subsection 4.4.4.
Leak Detection of Storage Tanks and Piping Systems	Section 4.4
Leak Detection Testing and Monitoring Methods	Subsection 4.4.2.
Leak Detection Testing of Storage Tanks, Piping Systems and Sumps	Subsection 4.4.3.
Life Safety Study	Subsection 9.1.4.
Loading, Unloading and Dispensing from Tank Vehicles	Subsection 4.11.3.
Location and Arrangement of Piping	Subsection 4.5.6.
M	
Means of Egress and Occupant Load	Subsection 2.7.1.
Methods of Transfer in Piping Systems	Subsection 4.5.9.
N	
Normal and Emergency Venting for Aboveground Storage Tanks	Subsection 4.3.4.
O	
Objectives	Section 2.2 [Div. A]
Objectives - Application	Subsection 2.1.1. [Div. A]
Open Flames	Subsection 2.4.4.
Openings Other than Vents in Aboveground Storage Tanks	Subsection 4.3.6.
Openings Other than Vents in Storage Tanks inside Buildings	Subsection 4.3.15.

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
Openings Other than Vents in Underground Storage Tanks	Subsection 4.3.12.
Operating Procedures for Piping Systems	Subsection 4.5.10.
Organic Peroxides and Dual Component Coatings	Subsection 5.14.7.
Organizations	Subsection 1.2.2.
Out of Service - Storage Tanks	Subsection 4.3.16.
Outdoor and Indoor Storage - Application	Subsection 3.1.1.
Outdoor and Indoor Storage - Dangerous Goods	Subsection 3.1.2.
Outdoor and Indoor Storage - General	Section 3.1
Outdoor Public Amusement Areas	Section 2.14
Outdoor Storage	Section 3.3
Outdoor Storage of Dangerous Goods	Subsection 3.3.4.
Outdoor Storage of Lumber and Forest Products	Subsection 3.3.2.
Outdoor Storage of Tires	Subsection 3.3.1.
Outdoor Storage of Wood Chips	Subsection 3.3.3.
Outside Aboveground Storage Tanks - Installation	Subsection 4.3.2.
P	
Piers and Wharves	Section 4.8
Piers and Wharves - Bonding and Grounding	Subsection 4.8.5.
Piers and Wharves - Bulk Transfer Stations	Subsection 4.8.7.
Piers and Wharves - Cargo Hose	Subsection 4.8.8.
Piers and Wharves - Cargo Pumps	Subsection 4.8.9.
Piers and Wharves - Fire Protection	Subsection 4.8.6.
Piers and Wharves - General	Subsection 4.8.2.
Piers and Wharves - Piping, Valves and Fittings	Subsection 4.8.4.
Piers and Wharves - Pump Houses	Subsection 4.8.10.
Piers and Wharves - Scope	Subsection 4.8.1.
Piers and Wharves - Storage Tanks	Subsection 4.8.3.
Piers and Wharves - Transfer Operations	Subsection 4.8.11.
Piping and Transfer Systems	Section 4.5
Piping and Transfer Systems - Corrosion Protection	Subsection 4.5.3.

ALPHABETICAL LISTING

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
Piping and Transfer Systems - Heating	Subsection 4.5.8.
Piping and Transfer Systems - Identification	Subsection 4.5.4.
Piping and Transfer Systems - Joints	Subsection 4.5.5.
Piping and Transfer Systems - Location and Arrangement	Subsection 4.5.6.
Piping and Transfer Systems - Materials for Piping, Valves and Fittings	Subsection 4.5.2.
Piping and Transfer Systems - Methods of Transfer	Subsection 4.5.9.
Piping and Transfer Systems - Operating Procedures	Subsection 4.5.10.
Piping and Transfer Systems - Valves	Subsection 4.5.7.
Portable Extinguishers	Section 6.2
Portable Extinguishers - Classification	Subsection 6.2.2.
Portable Extinguishers - Distribution	Subsection 6.2.6.
Portable Extinguishers - General	Subsection 6.2.1.
Portable Extinguishers - Grading of Hazards	Subsection 6.2.5.
Portable Extinguishers - Inspection, Testing and Maintenance	Subsection 6.2.7.
Portable Extinguishers - Installation Requirements	Subsection 6.2.4.
Portable Extinguishers - Selection Requirements	Subsection 6.2.3.
Portable Oxygen Systems	Section 2.15
Process Plants	Section 4.9
Process Plants - Fire Prevention and Protection	Subsection 4.9.4.
Process Plants - Outdoor Processing Equipment	Subsection 4.9.2.
Process Plants - Processing Buildings	Subsection 4.9.3.
Process Plants - Scope	Subsection 4.9.1.
Public Amusement Areas - Indoor	Subsection 2.7.4.
Public Amusement Areas - Outdoor	Section 2.14
Pyrotechnics	Subsection 5.1.1.
Q	
Qualifications	Section 1.2 [Div. C]
Qualifications and Responsibilities of Persons Performing Work on Fire Alarm Systems	Subsection 1.2.1. [Div. C]
Qualifications and Responsibilities of Persons Performing Work on Interconnected Smoke Alarm Systems	Subsection 1.2.2. [Div. C]

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
Qualifications of Chief Fire Officials	Subsection 1.2.4. [Div. C]
Qualifications of the Person who Ensures Implementation of a Fire Safety Plan under Subsection 2.8.2. of Division B	Subsection 1.2.3. [Div. C]
Quench Tanks	Subsection 5.14.1.
R	
Referenced Documents	Section 1.5 [Div. A]
Referenced Documents	Subsection 1.2.1.
Referenced Documents and Organizations	Section 1.2
Residential Occupancies Higher Than 6 Storeys	Section 9.6
Residential Occupancies Higher Than 6 Storeys - Application and General	Subsection 9.6.1.
Residential Occupancies Higher Than 6 Storeys - Containment	Subsection 9.6.2.
Residential Occupancies Higher Than 6 Storeys - Fire Alarm and Detection	Subsection 9.6.4.
Residential Occupancies Higher Than 6 Storeys - Means of Egress	Subsection 9.6.3.
Residential Occupancies Higher Than 6 Storeys - Suppression	Subsection 9.6.5.
Residential Occupancies Up To and Including 6 Storeys	Section 9.5
Residential Occupancies Up To and Including 6 Storeys - Application and General	Subsection 9.5.1.
Residential Occupancies Up To and Including 6 Storeys - Containment	Subsection 9.5.2.
Residential Occupancies Up To and Including 6 Storeys - Fire Alarm and Detection	Subsection 9.5.4.
Residential Occupancies Up To and Including 6 Storeys - Means of Egress	Subsection 9.5.3.
Residential Occupancies Up To and Including 6 Storeys - Suppression	Subsection 9.5.5.
Retirement Home	Section 9.7
Retirement Home - Application and General	Subsection 9.7.1.
Retirement Home - Containment	Subsection 9.7.2.
Retirement Home - Fire Alarm and Detection	Subsection 9.7.4.
Retirement Home - Means of Egress	Subsection 9.7.3.
Retirement Home - Suppression	Subsection 9.7.5.
Retrofit - Application	Subsection 9.1.2.
Retrofit - Assembly Occupancies	Section 9.2
Retrofit - Boarding, Lodging and Rooming Houses	Section 9.3

ALPHABETICAL LISTING

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
Retrofit - Buildings Higher Than 6 Storeys in Building Height with Residential Occupancies	Section 9.6
Retrofit - Buildings Up To and Including 6 Storeys in Building Height with Residential Occupancies	Section 9.5
Retrofit - Buildings with a Care Occupancy or Retirement Home	Section 9.7
Retrofit - General	Section 9.1
Retrofit - Health Care Facilities	Section 9.4
Retrofit - Hotels	Section 9.9
Retrofit - Life Safety Study	Subsection 9.1.4.
Retrofit - Schedule of Compliance	Subsection 9.1.3.
Retrofit - Two Unit Residential Occupancies	Section 9.8
Roll Coating Processes	Subsection 5.14.3.
Rooms for Storage Tanks	Subsection 4.3.14.
S	
Safety to Life	Section 2.7
Salvage Shops and Salvage Yards	Section 3.5
Salvage Shops and Salvage Yards - General	Subsection 3.5.1.
Salvage Shops and Salvage Yards - Piling	Subsection 3.5.2.
Secondary Containment for Aboveground Storage Tanks	Subsection 4.3.7.
Self-Service Storage Buildings	Subsection 4.2.12.
Service Equipment	Section 2.6
Smoke Alarms - Application and Responsibility	Subsection 2.13.1.
Smoke Alarms - Installation	Section 2.13
Smoke Alarms - Installation Requirements	Subsection 2.13.2.
Smoke Alarms – Maintenance and Testing	Subsection 6.3.3.
Smoke Control Equipment - Inspection, Testing and Maintenance in High Buildings	Section 7.3
Smoking	Subsection 2.4.3.
Solid-Fuel Burning Appliances	Subsection 2.6.2.
Special Fire Suppression System - Inspection and Maintenance	Subsection 6.8.1.
Special Fire Suppression Systems	Section 6.8
Special Processes Involving Flammable and Combustible Materials	Section 5.14

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
Spill Control and Drainage Systems - Flammable and Combustible Liquids	Subsection 4.1.6.
Spray Applications - Application and Separation	Subsection 5.12.1.
Spray Applications - Construction	Subsection 5.12.2.
Spray Applications - Control of Fire Hazards	Subsection 5.12.7.
Spray Applications - Dry Powder-Coating Using Spray Guns	Subsection 5.12.11.
Spray Applications - Drying Operations	Subsection 5.12.9.
Spray Applications - Electrical Equipment	Subsection 5.12.5.
Spray Applications - Electrostatic Spraying	Subsection 5.12.10.
Spray Applications - Exhaust Ducts	Subsection 5.12.4.
Spray Applications - Fire Protection Equipment	Subsection 5.12.8.
Spray Applications - Flammable Liquids and Combustible Liquids	Subsection 5.12.6.
Spray Applications - Ventilation	Subsection 5.12.3.
Spray Applications Using Flammable and Combustible Materials	Section 5.12
Sprinkler Systems	Section 6.5
Sprinkler Systems - Shutdowns	Subsection 6.5.2.
Sprinkler Systems - Checking	Subsection 6.5.3.
Sprinkler Systems - General	Subsection 6.5.1.
Sprinkler Systems - Inspection	Subsection 6.5.4.
Sprinkler Systems - Maintenance	Subsection 6.5.6.
Sprinkler Systems - Testing	Subsection 6.5.5.
Standpipe and Hose Systems	Section 6.4
Standpipe and Hose Systems - Checking, Inspection and Testing	Subsection 6.4.3.
Standpipe and Hose Systems - General	Subsection 6.4.1.
Standpipe and Hose Systems - Maintenance and Inspection of Hose Stations and Equipment	Subsection 6.4.2.
Storage Tanks	Section 4.3
Storage Tanks - Design, Construction and Use	Subsection 4.3.1.
Storage Tanks - Out of Service	Subsection 4.3.16.
Storage Tanks - Rooms	Subsection 4.3.14.
Storage Tanks inside Buildings - Installation	Subsection 4.3.13.
Storage Tanks inside Buildings - Openings Other than Vents	Subsection 4.3.15.
Sumps	Subsection 4.3.9.

ALPHABETICAL LISTING

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
Supports, Foundations and Anchorage for Aboveground Storage Tanks	Subsection 4.3.3.
T	
Tank Storage	Section 4.3
Tank Vehicles	Section 4.11
Tank Vehicles - General	Subsection 4.11.2.
Tank Vehicles - Loading, Unloading and Dispensing	Subsection 4.11.3.
Tank Vehicles - Scope	Subsection 4.11.1.
Tents and Air-Supported Structures	Section 2.9
Tents and Air-Supported Structures - Fire Hazards and Control	Subsection 2.9.3.
Tents and Air-Supported Structures - General	Subsection 2.9.1.
Tents and Air-Supported Structures - Materials	Subsection 2.9.2.
Terms and Abbreviations	Section 1.4 [Div. A]
Textile Flammability	Subsection 2.3.2.
Tire Storage	Subsection 3.2.1.
Two Unit Residential Occupancies	Section 9.8
Two Unit Residential Occupancies - Application and General	Subsection 9.8.1.
Two Unit Residential Occupancies - Containment	Subsection 9.8.2.
Two Unit Residential Occupancies - Electrical	Subsection 9.8.6.
Two Unit Residential Occupancies - Fire Alarm and Detection	Subsection 9.8.4.
Two Unit Residential Occupancies - Means of Egress	Subsection 9.8.3.
Two Unit Residential Occupancies - Suppression	Subsection 9.8.5.
U	
Underground Steel Storage Tanks - Corrosion Protection	Subsection 4.3.10.
Underground Storage Tanks - Installation	Subsection 4.3.8.
Underground Storage Tanks - Openings Other than Vents	Subsection 4.3.12.
Underground Storage Tanks - Out of Service	Subsection 4.3.16.
Underground Storage Tanks - Sumps	Subsection 4.3.9.
Underground Storage Tanks - Vents	Subsection 4.3.11.
Unit Equipment for Emergency Lighting	Section 6.7
Use of Hazardous Materials	Subsection 2.4.5.

Column 1 Alphabetical Listing of Topics	Column 2 Fire Code Reference
V	
Vacant Buildings	Subsection 2.4.7.
Valves in Piping Systems	Subsection 4.5.7.
Vent Piping for Aboveground Storage Tanks	Subsection 4.3.5.
Ventilation - Flammable and Combustible Liquids	Subsection 4.1.7.
Vents for Underground Storage Tanks	Subsection 4.3.11.
W	
Water Supplies for Fire Protection	Section 6.6
Water Supplies for Fire Protection - Fire Pumps and Reservoirs	Subsection 6.6.3.
Water Supplies for Fire Protection - General	Subsection 6.6.1.
Water Supplies for Fire Protection - Hydrants	Subsection 6.6.4.
Water Supplies for Fire Protection - Inspection of Hydrants	Subsection 6.6.5.
Water Supplies for Fire Protection - Tanks	Subsection 6.6.2.
Water Supplies for Fire Protection - Uniform Marking of Hydrants	Subsection 6.6.6.

FIRE CODE SUPPLEMENT FCS-1

OBJECTIVES AND FUNCTIONAL STATEMENTS ATTRIBUTED TO THE ACCEPTABLE SOLUTIONS

Current to January 1, 2026

COMMENCEMENT

**FIRE CODE SUPPLEMENT FCS-1, FEBRUARY 2025
WAS ISSUED ON FEBRUARY 25, 2025.**

© Copyright

Reproduction of this document for commercial or advertising purposes is prohibited without the written permission from the Office of the Fire Marshal, Ministry of the Solicitor General

TABLE OF CONTENTS

Column 1	Column 2
SECTION 1	TITLE
1.	SCOPE
2.	OBJECTIVES AND FUNCTIONAL STATEMENTS
3.	ATTRIBUTION TO ACCEPTABLE SOLUTIONS
4.	USING THE TABLES
Table 2	Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 2 of Division B
Table 3	Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 3 of Division B
Table 4	Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 4 of Division B
Table 5	Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 5 of Division B
Table 6	Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 6 of Division B
Table 7	Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 7 of Division B
Table 8	Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 8 of Division B
Table 9	Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 9 of Division B

Fire Code Supplement FCS-1

1. SCOPE

This document prescribes, for the purposes of Subsection 1.2.2. in Division A of the Fire Code, the objectives and functional statements that have been attributed to acceptable solutions set out in Division B of the Fire Code.

2. OBJECTIVES AND FUNCTIONAL STATEMENTS

The objectives referred to in this document are those set out in Part 2 of Division A of the Fire Code.

The functional statements referred to in this document are those set out in Part 3 of Division A of the Fire Code.

3. ATTRIBUTION TO ACCEPTABLE SOLUTIONS

For the purposes of compliance with the Fire Code, as provided in Clause 1.2.2.1.(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 set out in Tables 2 to 9.

Where objectives and functional statements have not been attributed to an acceptable solution in Tables 2 to 9, the provisions of Clause 1.2.2.1.(1)(b) of Division A of the Fire Code do not apply and compliance with the Fire Code must be achieved by complying with the acceptable solution specified in Division B of the Fire Code. Refer to Sentence 1.2.2.1.(3) of the Fire Code for additional details.

4. USING THE TABLES

For the purposes of Tables 2 to 9, objectives and functional statements attributed to an acceptable solution apply to all text associated with the acceptable solution, unless otherwise noted. A notation made by the following mark “...” identifies text contained in the Fire Code that is included for the purposes of the attribution but is omitted from the table for brevity. A notation made by the following mark “___” identifies text contained in the Fire Code that is deliberately excluded for the purposes of the attribution.

TABLE 2

Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 2 of Division B

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 2.1	GENERAL
Subsection 2.1.1.	Scope and Application
2.1.1.1.	Note ¹
2.1.1.2.	Note ¹
2.1.1.3. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
Subsection 2.1.2.	Classification of Buildings or Parts of Buildings by Major Occupancy
2.1.2.1.	Note ¹
2.1.2.2.	[F01-OS1.1,OS1.2,OS1.5,OP1.1,OP1.2] [F03-OS1.2,OS1.5,OP1.2] [F04-OS1.3,OP1.3]
2.1.2.3.	Note ¹
2.1.2.4.	Note ¹
2.1.2.5.	Note ¹
Subsection 2.1.3.	Fire Safety Installations
2.1.3.1.	RESERVED
2.1.3.2.	RESERVED
2.1.3.3.	RESERVED
2.1.3.4.	RESERVED
2.1.3.5. (1)	Note ¹
(2)	Note ¹
(3)	[F02,F81-OS1.2,OP1.2]
(4)	[F02,F81-OS1.2,OP1.2]
(5)	[F02,F81-OS1.2,OP1.2]
(6)	[F02-OP1.2] [F02-OS1.2]
(7)	[F82,F12-OS1.2,OP1.2]
(8)	[F12-OP1.2,OS1.2]
SECTION 2.2	FIRE SEPARATIONS
Subsection 2.2.1.	Major Occupancies
2.2.1.1.	[F82-OS1.2,OP1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 2

Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 2 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 2.2.2.	Rooms and Spaces
2.2.2.1.	[F82-OS1.2,OP1.2]
Subsection 2.2.3.	Closures
2.2.3.1.	[F82-OS1.2,OP1.2]
2.2.3.2. (1)	[F82-OS1.2,OP1.2]
2.2.3.3.	[F81-OS1.2,OP1.2]
2.2.3.4. (1)	[F03-OS1.2,OP1.2]
(2)	[F82-OS1.2,OP1.2]
(3)	Note ¹
(4)	[F82-OS1.4,OP1.4]
(5)	[F81-OS1.2,OS1.4,OP1.2,OP1.4]
2.2.3.5.	[F82-OS1.2,OP1.2]
Subsection 2.2.4.	Encapsulation Materials
2.2.4.1.	[F02-OP1.2] [F02-OS1.2]
SECTION 2.3	INTERIOR FINISHING, FURNISHING AND DECORATIVE MATERIALS
Subsection 2.3.1.	General
2.3.1.1. (1)	[F02-OS1.2,OP1.2]
(2)	Note ¹
2.3.1.2.	[F02-OS1.2,OP1.2]
Subsection 2.3.2.	Textile Flammability
2.3.2.1. (1)	[F02-OS1.2,OS1.5,OP1.2]
(2)	Note ¹
(3)	Note ¹
2.3.2.2.	[F82-OS1.2,OS1.5,OP1.2]
SECTION 2.4	FIRE HAZARDS
Subsection 2.4.1.	Combustible Materials
2.4.1.1. (1)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2,OP3.1]
(2)	[F01-OS1.1,OP1.1] [F02,F03-OS1.2,OP1.2]
(3)	Note ¹

TABLE 2

Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 2 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(4)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
(5)	[F02-OS1.2,OP1.2]
(6)	[F03-OS1.2,OP3.1]
(7)	Note ¹
2.4.1.2. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
2.4.1.3. (1)	[F01-OS1.1,OP1.1]
(2)	Note ¹ Applies to “combustible materials shall not be stored with ashes in the same receptacle”. [F01-OS1.1] Applies to “Ashes shall be stored in receptacles that conform to Sentence (3)”.
(3)	[F03-OS1.2,OP1.2]
2.4.1.4. (1)	[F03-OS1.2,OP1.2]
2.4.1.5.	[F01-OS1.1,OP1.1]
2.4.1.6.	[F01-OS1.1,OP1.1] [F44-OS1.2,OP1.2]
Subsection 2.4.2.	RESERVED
Subsection 2.4.3.	Smoking
2.4.3.1. (1)	[F01-OS1.1,OP1.1]
(2)	[F02-OS1.2,OP1.2]
2.4.3.2.	[F81-OS1.1,OP1.1]
Subsection 2.4.4.	Open Flames
2.4.4.1. (1)	[F01-OS1.1,OP1.1]
(2)	Note ¹
(3)	[F01-OS1.1,OP1.1]
2.4.4.2. (1)	Note ¹
(2)	[F01-OS1.1,OP1.1]
(3)	[F01-OS1.1,OP1.1]
(4)	[F02,F12-OS1.2,OP1.2]
2.4.4.3.	[F01-OS1.1,OP1.1]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 2

Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 2 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
2.4.4.4 (1)	[F01,F81-OS1.1,OP1.1] [F02,F03,F81-OS1.2,OP1.2,OP3.1]
(2)	Note ¹
Subsection 2.4.5.	Use of Hazardous Materials
2.4.5.1.	[F01-OS1.1,OP1.1]
2.4.5.2.	Note ¹
Subsection 2.4.6.	Electrical Hazards
2.4.6.1.	[F01-OS1.1,OP1.1]
Subsection 2.4.7.	Vacant Buildings
2.4.7.1.	[F34-OS1.1,OP1.1]
SECTION 2.5	FIRE DEPARTMENT ACCESS TO BUILDINGS
Subsection 2.5.1.	General
2.5.1.1. (1)	Note ¹
2.5.1.2. (1)	[F12-OS1.2,OP1.2]
(2)	[F12-OS1.2,OP1.2]
2.5.1.3.	[F12-OS1.2,OP1.2]
2.5.1.4.	[F12-OS1.2,OP1.2]
SECTION 2.6	SERVICE EQUIPMENT
Subsection 2.6.1.	Heating, Ventilating and Air-Conditioning
2.6.1.1.	Note ¹
2.6.1.2.	[F01-OS1.1,OP1.1]
2.6.1.3. (1)	[F01,F82-OS1.1,OP1.1] [F02,F82-OS1.2,OP1.2]
(2)	Note ¹
2.6.1.4. (1)	[F01,F82-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
(2)	[F01-OS1.1,OP1.1] [F03-OS1.2,OP1.2] [F04-OS1.3,OP1.3]
(3)	[F82-OS1.1,OS1.2,OS1.3,OP1.1,OP1.2,OP1.3]
2.6.1.5.	[F82-OS1.1,OP1.1,OS1.2,OP1.2]
2.6.1.6.	RESERVED

TABLE 2

Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 2 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
2.6.1.7.	[F01-OS1.1] [F82-OS1.1,OS1.2,OP1.1,OP1.2]
2.6.1.8. (1)	[F82-OS1.2,OP1.2]
(2)	Note ¹
2.6.1.9.	[F01-OS1.1,OP1.1] [F81-OS1.1,OS1.2,OP1.1,OP1.2]
2.6.1.10. (1)	[F01-OS1.1,OP1.1] [F02,F03-OS1.2,OP1.2]
2.6.1.11.	[F43,F81-OS1.1,OP1.1]
2.6.1.12. (1)	[F01-OS1.1] [F02,F03,F12-OS1.2,OP1.2] [F81-OS1.4,OP1.4]
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
2.6.1.13.	[F82-OS1.1,OS1.2,OS1.4,OP1.1,OP1.2,OP1.4]
2.6.1.14. (1)	[F12-OS1.2,OP1.2]
(2)	Note ¹
Subsection 2.6.2.	Solid-Fuel-Burning Appliances
2.6.2.1.	[F01-OS1.1,OP1.1] [F03-OS1.2,OP1.2]
2.6.2.2.	[F01-OS1.1,OP1.1] [F82-OS1.1,OS1.2,OP1.1,OP1.2]
Subsection 2.6.3.	Incinerators
2.6.3.1. (1)	[F01-OS1.1,OP1.1,OP3.1] [F81-OS1.1,OP1.1]
(2)	[F01-OS1.1] [F03-OS1.2,OP3.1] [F81-OS1.1,OS1.2] [F82-OS1.1] Apply to the design, construction, installation, alteration and maintenance of outdoor incinerators conforming to NFPA 82, “Standard on Incinerators and Waste and Linen Handling Systems and Equipment”. Note ¹ Applies to “the flue venting an incinerator shall not serve as the chute conveying waste material to the incinerator”.

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 2

Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 2 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
2.6.3.2.	[F01-OS1.1,OP1.1,OP3.1] [F82-OS1.2,OP1.2]
2.6.3.3. (1)	[F82-OS1.1,OP1.1]
(2)	[F01,F82-OS1.1,OP1.1]
Subsection 2.6.4.	Electrical Equipment Vaults
2.6.4.1.	Note ¹
2.6.4.2.	[F34-OS1.1,OP1.1]
SECTION 2.7	SAFETY TO LIFE
Subsection 2.7.1.	Means of Egress and Occupant Load
2.7.1.1.	[F10-OS1.5]
2.7.1.2.	RESERVED
2.7.1.3.	RESERVED
2.7.1.4. (1)	[F10-OS1.5]
(2)	[F10-OS1.5]
(3)	[F10-OS1.5]
(4)	Note ¹
(5)	Note ¹
(6)	Note ¹
(7)	[F10-OS1.5]
2.7.1.5. (1)	[F10-OS1.5]
(2)	[F10-OS1.5]
2.7.1.6. (1)	Note ¹
(2)	[F10-OS1.5]
(3)	[F10-OS1.5]
(4)	Note ¹
(5)	[F10-OS1.5]
(6)	[F10-OS1.5]
(7)	[F10-OS1.5]
(8)	Note ¹
2.7.1.7. (1)	[F10,F30,F82-OS1.5] [F12-OS1.2,OP1.2]
(2)	[F82-OS1.5]
(3)	Note ¹

TABLE 2

Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 2 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
2.7.1.8. (1)	[F10-OS1.5] [F12-OS1.2,OP1.2] [F82-OS1.2,OS1.5,OP1.2]
(2)	[F10-OS1.5] [F12-OS1.2,OP1.2] [F82-OS1.2,OS1.5,OP1.2]
2.7.1.9. (1)	[F10-OS1.5]
(2)	Note ¹
(3)	[F10-OS1.5]
(4)	Note ¹
(5)	[F10-OS1.5]
(6)	[F10-OS1.5]
Subsection 2.7.2.	Door Hardware
2.7.2.1. (1)	[F10-OS1.5]
(2)	[F10-OS1.5]
(3)	[F10-OS1.5]
(4)	Note ¹
(5)	Note ¹
2.7.2.2. (1)	[F10-OS1.5]
(2)	[F10-OS1.5]
(3)	[F10-OS1.5]
(4)	[F10-OS1.5]
(5)	[F10-OS1.5]
(6)	[F81-OS1.4,OS1.5]
(7)	Note ¹
2.7.2.3. (1)	[F82-OP1.2] [F82-OS1.5] [F82-OS1.2]
(2)	[F82-OS1.5]
(3)	[F82-OS1.5]
(4)	[F82-OS1.5]
2.7.2.4.	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 2

Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 2 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 2.7.3.	Exit Lighting and Emergency Lighting
2.7.3.1.	[F10,F82-OS1.5]
2.7.3.2.	[F10-OS1.5]
2.7.3.3.	Note ¹
Subsection 2.7.4.	Indoor Public Amusement Areas
2.7.4.1. (1)	[F01-OS1.1] [F02-OS1.2] [F10-OS1.5]
(2)	[F01-OS1.1] [F02-OS1.2]
2.7.4.2. (1)	[F10,F36-OS1.5]
SECTION 2.8	EMERGENCY PLANNING
Subsection 2.8.1.	General
2.8.1.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
2.8.1.2. (1)	[F12-OS1.2,OS1.4,OS1.5,OP1.2,OP1.4]
(2)	[F12-OS1.2,OS1.4,OS1.5]
(3)	Note ¹
2.8.1.3. (1)	[F12-OS1.2,OS1.4,OS1.5,OP1.2,OP1.4]
2.8.1.4.	[F12-OP1.2] [F12-OS1.5,OS1.2]
Subsection 2.8.2.	Fire Safety Plan
2.8.2.1. (1)	[F11-OS1.5] [F13-OS1.2,OS1.5,OP1.2]
(2)(a)(i)	[F11-OS1.5] [F13-OS1.2,OS1.5,OP1.2]
(ii)	[F13-OS1.2,OS1.5,OP1.2]
(iii)	[F11-OS1.5]
(iv)	[F10-OS1.5]
(v)	[F12,F36-OS1.5]
(vi)	[F02-OS1.2,OP1.2]

TABLE 2

Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 2 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(b)	[F12-OS1.2,OS1.5,OP1.2]
(c)	[F12-OS1.2,OS1.5,OP1.2]
(d)	[F12-OS1.2,OS1.5,OP1.2]
(e)	[F10,F12-OS1.5]
(f)	[F01-OS1.1,OP1.1]
(g)	[F82-OS1.1,OS1.2,OP1.1,OP1.2]
(h)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2] [F10,F11,F36-OS1.5] [F12-OS1.2,OS1.5] [F13-OS1.2,OS1.5,OP1.2] [F82-OS1.1,OS1.2,OP1.1,OP1.2]
(3)	[F12-OS1.2,OS1.5,OP1.2]
(4)	Note ¹
(5)	[F12-OS1.2,OS1.5,OP1.2]
(6)	[F11-OS1.5] [F13-OS1.2,OS1.5,OP1.2]
(7)	Note ¹
(8)	Note ¹
2.8.2.2. (1)	[F01-OS1.1] [F02-OS1.2] [F12-OS1.2,OS1.4,OS1.5]
(2)	[F01-OS1.1] [F02-OS1.2] [F12-OS1.2,OS1.4,OS1.5]
2.8.2.3. (1)	[F12-OS1.2,OS1.5,OP1.2] [F11-OS1.5]
2.8.2.4.	[F12-OS1.2,OS1.4,OS1.5,OP1.2,OP1.4]
2.8.2.5. (1)	[F12-OS1.1,OS3.4].
(2)	[F12-OS1.1,OS3.4].
2.8.2.6. (1)	Note ¹
(2)	[F81,F02,F12-OP1.2] [F81-OS1.1] [F81,F02,F12-OS1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 2

Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 2 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(3)	[F02,F12-OP1.2] [F02,F12-OS1.2]
2.8.2.7. (1)	[F44-OP1.1,OP1.2] [F44-OS1.1,OS1.2] [F44-OH5]
2.8.2.8. (1)	[F10-OS1.5]
(2)(a)	[F12-OS1.2,OS1.5,OP1.2]
(b)	[F01-OS1.1,OP1.1] [F03-OS1.2,OP1.2] [F10-OS1.5]
(3)	[F13-OS1.2,OP1.2]
Subsection 2.8.3.	Fire Drills
2.8.3.1. (1)	[F10-OS1.5] [F12-OS1.2,OS1.5,OP1.2]
(2)	Note ¹
2.8.3.2. (1)	[F10-OS1.5] [F12-OS1.2,OS1.5,OP1.2]
(2)	[F10-OS1.5] [F12-OS1.2,OS1.5,OP1.2]
(3)	[F10-OS1.5] [F12-OS1.2,OS1.5,OP1.2]
(4)	[F10-OS1.5] [F12-OS1.2,OS1.5,OP1.2]
(5)	[F10-OS1.5] [F12-OS1.2,OS1.5,OP1.2]
(6)	[F10-OS1.5] [F12-OS1.2,OS1.5,OP1.2]
(7)	[F12-OS1.5]
2.8.3.3.	Note ¹
2.8.3.4. (1)	Note ¹
(2)	Note ¹
2.8.3.5.	[F10-OS1.5] [F12-OS1.2,OS1.5,OP1.2]

TABLE 2

Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 2 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 2.9	TENTS AND AIR-SUPPORTED STRUCTURES
Subsection 2.9.1.	General
2.9.1.1.	Note ¹
2.9.1.2.	Note ¹
Subsection 2.9.2.	Materials
2.9.2.1.	[F82-OS1.2,OS1.5,OP1.2]
Subsection 2.9.3.	Fire Hazards and Control
2.9.3.1 (1)	[F02-OS1.2]
(2)	Note ¹
(3)	Note ¹
2.9.3.2.	[F01-OS1.1,OP1.1]
2.9.3.3. (1)	Note ¹
2.9.3.4. (1)	[F10-OS1.5]
	[F12-OS1.2,OS1.5]
2.9.3.5.	[F11-OS1.5] [F13-OS1.2,OP1.2]
SECTION 2.10	DAY CARE CENTRES
Subsection 2.10.1.	Application
2.10.1.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
Subsection 2.10.2.	Combustible Materials
2.10.2.1.	[F02-OS1.2,OP1.2]
2.10.2.2.	[F02,F03-OS1.2,OP1.2]
2.10.2.3.	Note ¹ Applies to “Flammable liquids and combustible liquids shall be stored in conformance with Part 4”. [F01,F34-OS1.1] Applies to “Flammable liquids and combustible liquids shall be stored in areas inaccessible to children”.
Subsection 2.10.3.	Staffing
2.10.3.1.	[F12-OS1.5]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 2

Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 2 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 2.11	INSULATION AND RE-INSULATION
Subsection 2.11.1.	General
2.11.1.1.	Note ¹
2.11.1.2.	[F02-OS1.2,OP1.2]
2.11.1.3.	[F03-OS1.2,OP1.2]
SECTION 2.12	COVERED MALLS
Subsection 2.12.1.	General
2.12.1.1. (1)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2] [F10-OS1.5]
(2)	Note ¹
2.12.1.2.	[F02-OS1.2,OP1.2]
2.12.1.3. (1)	[F03-OS1.2,OP3.1]
(2)	Note ¹
2.12.1.4.	Note ¹
2.12.1.5.	[F11-OS1.5] [F12-OS1.2,OS1.5,OP1.2] [F13-OS1.2,OP1.2]
2.12.1.6.	Note ¹
2.12.1.7.	[F01,F81-OS1.1,OP1.1]
SECTION 2.13	INSTALLATION OF SMOKE ALARMS
Subsection 2.13.1.	Application and Responsibility
2.13.1.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
2.13.1.2.	Note ¹
Subsection 2.13.2.	Installation Requirements
2.13.2.1. (1)	[F11-OS1.5]
(2)	[F81-OS1.4]
(3)	[F11-OS1.5] [F81-OS1.4]
(4)	Note ¹

TABLE 2

Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 2 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 2.14	OUTDOOR PUBLIC AMUSEMENT AREAS
Subsection 2.14.1.	General
2.14.1.1.	Note ¹
2.14.1.2. (1)	[F01-OS1.1] [F02-OS1.2] [F10-OS1.5]
(2)	[F01-OS1.1] [F02-OS1.2]
2.14.1.3.	[F01-OS1.1]
2.14.1.4. (1)	[F10,F36-OS1.5]
2.14.1.5. (1)(a)	[F11-OS1.5] [F13-OS1.2,OS1.5,OP1.2]
(b)	[F10-OS1.5]
(c)	[F12-OS1.2,OS1.5,OP1.2]
(d)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
(2)	Note ¹
SECTION 2.15	PORTABLE OXYGEN SYSTEMS
Subsection 2.15.1.	General
2.15.1.1.	Note ¹
2.15.1.2.	[F01-OS1.1] [F02,F03-OS1.2,OP1.2]
SECTION 2.16	INSTALLATION OF CARBON MONOXIDE ALARMS
Subsection 2.16.1.	Application and Responsibility
2.16.1.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
2.16.1.2. (1)	Note ¹
(2)	Note ¹
Subsection 2.16.2.	Installation Requirements
2.16.2.1. (1)	[F11-OS3.4]
(2)	[F11-OS3.4]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 2

Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 2 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(3)	[F11-OS3.4]
(4)	[F11-OS3.4]
(5)	[F11,F81-OS3.4]
(6)	[F11,F81-OS3.4]
(7)	[F11,F81-OS3.4]
(8)	[F11-OS3.4]
SECTION 2.17	FARM BUILDINGS
Subsection 2.17.1.	Fire Hazards and Control
2.17.1.1.	Note ¹
2.17.1.2.	[F01,F82-OS1.1]
Subsection 2.17.2.	Signage
2.17.2.1. (1)	[F34-OS1.1] [F34-OS3.4]
(2)	[F34-OS3.4]
(3)	[F36-OS3.7]
(4)	[F34-OS3.4] [F10-OS3.7]
(5)	[F34-OS3.4] [F10-OS3.7]
Subsection 2.17.3.	Ambient Conditions
2.17.3.1. (1)	[F01-OS1.1] [F40-OS3.4]
(2)	Note ¹
2.17.3.2. (1)	Note ¹
(2)(a)	Note ¹
(b)	Note ¹
(3)	Note ¹

TABLE 3
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 3 of Division B

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 3.1	GENERAL
Subsection 3.1.1.	Application
3.1.1.1.	Note ¹
3.1.1.2. (1)	Note ¹
(2)	[F12-OS1.2,OP1.2] [F43-OS3.4,OH5]
3.1.1.3.	Note ¹
3.1.1.4.	RESERVED
Subsection 3.1.2.	Dangerous Goods
3.1.2.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
3.1.2.2. (1)	[F51-OS1.1]
(2)	[F51-OS1.1]
(3)	[F51-OS1.1]
3.1.2.3. (1)	[F20,F43,F80,F81-OH5,OS3.4] [F20,F43,F80,F81,F01-OS1.1]
(2)	[F01-OS1.1] [F20,F43,F80,F81-OS1.1,OS3.4,OH5]
3.1.2.4. (1)	[F01,F43-OS1.1,OP1.1] [F43-OS3.4,OH5] [F10,F30-OS3.7]
(2)(a)	[F43-OS3.4,OH5]
(b)	[F01,F43-OS1.1,OP1.1]
3.1.2.5.	RESERVED
3.1.2.6. (1)	Note ¹
(2)	[F22,F51,F81-OS1.1]
(3)	[F01,F52-OS1.1]
(4)	[F01-OS1.1]
(5)	Note ¹
SECTION 3.2	INDOOR STORAGE
Subsection 3.2.1.	Indoor Tire Storage
3.2.1.1.	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 3
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 3 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
3.2.1.2.	[F02,F12-OS1.2,OP1.2]
3.2.1.3. (1)	[F02-OS1.2,OP1.2]
(2)	[F02-OS1.2,OP1.2]
3.2.1.4.	[F02-OS1.2,OP1.2]
3.2.1.5.	[F03,F12-OS1.2,OP1.2]
3.2.1.6.	[F04-OS1.3,OP1.3]
3.2.1.7.	Note ¹
3.2.1.8. (1)	[F02,F04-OS1.2,OP1.2]
(2)	[F02,F04-OS1.2,OP1.2]
3.2.1.9.	[F12-OS1.2,OP1.2]
3.2.1.10. (1)	Note ¹ Applies to “In addition to the requirements of Section 6.2”. [F02,F12-OS1.2,OP1.2] Applies to “multi-purpose dry chemical portable extinguishers ... does not exceed 25 m”.
Subsection 3.2.2.	Indoor General Storage
3.2.2.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
3.2.2.2. (1)	[F02,F12-OS1.2,OP1.2]
(2)	[F02,F12-OS1.2,OP1.2]
(3)	[F02,F12-OS1.2,OP1.2]
(4)	[F04-OS1.2,OP1.2,OS1.5]
(5)	[F02-OS1.2,OP1.2]
3.2.2.3. (1)	[F02-OS1.2,OP1.2]
(2)	[F02,F04-OS1.2,OS1.3,OP1.2,OP1.3]
3.2.2.4.	[F12-OS1.2,OP1.2]
3.2.2.5.	[F12-OS1.2,OP1.2]
3.2.2.6. (1)	[F12-OS1.2,OP1.2]
(2)	[F10-OS1.5] [F12-OS1.2,OP1.2] [F82-OS1.4]
(3)	[F10-OS1.5] [F12-OS1.2,OP1.2]

TABLE 3
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 3 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(4)	[F06-OS1.5] [F12-OS1.2,OP1.2]
(5)	Note ¹
(6)	[F12-OS1.2,OP1.2]
3.2.2.7.	[F04-OS1.3,OP1.3]
3.2.2.8.	[F03-OS1.2,OP1.2]
3.2.2.9.	[F02-OS1.2,OP1.2] [F03-OP3.1]
3.2.2.10. (1)	[F02-OS1.2,OP1.2]
(2)	[F02-OS1.2,OP1.2]
(3)	[F02-OS1.2,OP1.2]
3.2.2.11.	[F01-OS1.1,OP1.1]
Subsection 3.2.3.	Indoor Storage of Ammonium Nitrate
3.2.3.1. (1)	Note ¹
(2)	Note ¹
3.2.3.2. (1)	Note ¹
(2)	Note ¹
(3)	[F01-OS1.1,OP1.1] [F03-OS1.2,OP1.2]
(4)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
(5)	[F01,F81-OS1.1,OP1.1]
(6)	[F03-OP3.1]
(7)	Note ¹
(8)	Note ¹
(9)	Note ¹
(10)	[F03-OS1.2,OP1.2]
3.2.3.3. (1)	[F01,F81-OS1.1,OP1.1]
(2)	Note ¹
(3)	[F01-OS1.1,OP1.1] [F03-OS1.2,OP1.2]
(4)	[F01-OS1.1,OP1.1]
3.2.3.4.	[F02,F12-OS1.2,OP1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 3
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 3 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
3.2.3.5. (1)	[F02-OS1.2,OP1.2] [F04-OS1.3]
(2)	[F21-OP1.3,OP1.2] [F21-OS1.3,OS1.2]
(3)	[F12-OP1.2] [F12-OS1.2]
(4)	[F02-OP1.2] [F02-OS1.2]
(5)	Note ¹
(6)	[F12-OS1.2,OP1.2] [F81-OS1.1,OP1.1]
(7)	[F01-OS1.1,OP1.1]
(8)	[F81-OS1.1,OP1.1]
3.2.3.6. (1)	[F02-OS1.2,OP1.2]
(2)	Note ¹
3.2.3.7. (1)	Note ¹
(2)	[F01-OS1.1,OP1.1]
(3)	[F01-OS1.1,OP1.1]
(4)	[F01-OS1.1,OP1.1]
(5)	[F01-OS1.1,OP1.1]
3.2.3.8.	Note ¹
3.2.3.9. (1)	Note ¹
(2)	[F81-OS1.1,OP1.1]
3.2.3.10.	[F01-OS1.1,OP1.1]
Subsection 3.2.4.	Indoor Storage of Combustible Fibres
3.2.4.1.	Note ¹
3.2.4.2	[F02-OS1.2,OP1.2]
3.2.4.3. (1)	[F02,F03-OS1.2,OP1.2]
(2)	[F02,F03-OS1.2,OP1.2]
(3)	[F02,F03-OS1.2,OP1.2]
(4)	[F02,F03-OS1.2,OP1.2]
(5)	[F02,F03-OS1.2,OP1.2]
(6)	Note ¹

TABLE 3
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 3 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
3.2.4.4. (1)(a)	[F02-OS1.2,OP1.2]
(b)	[F04-OS1.2,OS1.3,OP1.2,OP1.3]
(c)	[F03,F12-OS1.2,OP1.2]
(d)	[F04-OS1.3,OP1.3]
3.2.4.5.	[F04-OS1.2,OS1.3,OS1.5,OP1.2,OP1.3]
3.2.4.6. (1)	[F02-OS1.2,OP1.2]
(2)	[F02,F04-OS1.2,OS1.3,OP1.2,OP1.3]
3.2.4.7. (1)	[F01-OS1.1,OP1.1]
(2)	[F81-OS1.1,OP1.1]
3.2.4.8.	[F12-OS1.2,OP1.2]
3.2.4.9.	Note ¹
3.2.4.10.	[F04-OS1.3,OP1.3] [F12-OS1.2,OP1.2]
Subsection 3.2.5.	Indoor Storage of Aerosol Products
3.2.5.1.	Note ¹
3.2.5.2.	Note ¹
3.2.5.3.	Note ¹
3.2.5.4. (1)	[F02,F03-OS1.2,OP1.2] Applies to conformance to Table 3.2.5.4. Note ¹ Applies to all other text.
(2)	[F02,F03-OP1.2] [F02,F03-OS1.2]
3.2.5.5. (1)	[F02,F81-OP1.2,OS1.2]
(2)	[F02,F03-OP1.2,OS1.2]
3.2.5.6. (1)	[F20-OS1.2] [F20-OP1.2]
(2)	[F20-OS1.2]
3.2.5.7. (1)	[F03,F20-OP1.2] [F03,F20-OS1.2]
3.2.5.8. (1)	[F04-OP1.2,OS1.2,OS1.5] [F20,F81-OS1.1]
(2)(a)	[F02,F03,F20-OP1.2,OS1.2]
(b)	[F20-OS1.1] [F02,F03,F04,F20-OP1.2,OS1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 3
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 3 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
3.2.5.9.	[F03-OP1.2] [F03-OS1.2] [F06-OS1.5]
Subsection 3.2.6.	RESERVED
Subsection 3.2.7.	Indoor Storage of Dangerous Goods
3.2.7.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
3.2.7.2. (1)	[F01-OS1.1]
(2)	Note ¹
(3)	[F01-OS1.1]
3.2.7.3. (1)(a)	[F51,F52-OS1.1] [F51,F52-OS3.4]
(b)	[F01-OS1.1] [F40-OS3.4]
3.2.7.4. (1)	[F81,F01-OS1.1]
(2)	[F43,F81-OS3.4] [F43-OH5] [F43,F81-OS1.1]
3.2.7.5. (1)(a)	[F20-OS3.4] [F20-OS1.1,OS1.2] [F04-OS1.2,OS1.5]
(b)	[F20-OS1.1,OS1.2] [F04-OS1.2,OS1.5] [F20-OS3.4]
(c)	[F02-OS1.1] [F02-OP1.2]
(2)	[F20-OS1.1,OS1.2] [F04-OS1.2,OS1.5] [F02-OS1.2]
(3)	[F02-OP1.2] [F02-OS1.2]
(4)	[F81,F43,F12-OS3.4] [F81,F12-OH5] [F81,F01,F12-OS1.1]
(5)	Note ¹
(6)	Note ¹
(7)	Note ¹

TABLE 3
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 3 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(8)	[F01-OP1.2] [F01-OS1.2]
(9)	[F81,F82-OS3.4] [F81,F82-OS1.1] [F10-OS1.5]
3.2.7.6. (1)	[F43-OS3.4] [F01-OS1.1]
(2)	Note ¹
(3)	[F43-OS3.4] [F01-OS1.1]
(4)	[F02-OS1.1,OS3.4]
3.2.7.7.	[F80-OS3.4] [F80-OH5] [F80-OS1.1]
3.2.7.8. (1)(a)	Note ¹
(b)	[F01-OS1.1]
(2)	[F01-OS1.1]
3.2.7.9. (1)(a)	[F02-OP1.2] [F02-OS1.2]
(b)	[F02-OP1.2] [F02-OS1.2]
(2)	[F02,F03-OP1.2] [F01-OP1.1] [F02,F03-OS1.2] [F01-OS1.1]
(3)	Note ¹
3.2.7.10.	[F12,F02-OP1.2] [F12,F02-OS1.2,OS1.5]
3.2.7.11. (1)	Note ¹
(2)(a)	[F43-OS3.4] [F01-OS1.1]
(b)	Note ¹
3.2.7.12. (1)	Note ¹
(2)	[F12-OP1.2] [F12-OS1.2]
(3)	[F12-OP1.2] [F12-OS1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 3
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 3 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
3.2.7.13.	[F12,F81-OS3.4] [F12-OS1.1,OS1.2] [F81-OS1.1]
3.2.7.14. (1)	[F12,F81-OS3.4] [F12-OS1.1,OS1.2] [F81-OS1.1]
(2)	[F12-OS3.4] [F12-OS1.2]
(3)	[F12-OS3.4] [F12-OS1.2]
(4)	[F12-OS3.4] [F12-OS1.2]
(5)	Note ¹
3.2.7.15. (1)(a)	Note ¹
(b)	[F12-OS1.1,OS1.2] [F81-OS1.1] [F12,F81-OS3.4]
(c)	[F12-OS1.1,OS1.2] [F81-OS1.1] [F12-OS3.4]
(2)	[F81-OS3.4] [F81-OS1.1]
(3)	[F81,F12-OS3.4] [F81,F12-OS1.1]
3.2.7.16.	[F34-OH5] [F34-OS3.4] [F34-OS1.1]
3.2.7.17.	[F03-OS1.2] [F01-OS1.1]
3.2.7.18. (1)	Note ¹
(2)	[F03-OS1.2] [F01-OS1.1]
(3)	[F03-OS1.2] [F01-OS1.1]
3.2.7.19. (1)	[F02-OS1.2] [F02-OP1.2] [F04-OP1.2] [F20-OS1.1] [F04-OS1.2,OS1.5]
(2)	[F04,F02-OP1.2] [F20-OS1.1] [F04,F02-OS1.2]

TABLE 3
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 3 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
3.2.7.20.	[F02,F81-OP1.2] [F02,F81-OS1.2]
SECTION 3.3	OUTDOOR STORAGE
Subsection 3.3.1.	Outdoor Storage of Tires
3.3.1.1. (1)	Note ¹
(2)	Note ¹
3.3.1.2. (1)	Note ¹
(2)	Note ¹
(3)	[F01-OS1.1,OH5,OP1.1]
(4)	[F01-OS1.1,OH5,OP1.1] [F06-OS1.2] [F12-OS1.2,OS3.3,OP1.2]
3.3.1.3. (1)	Note ¹
(2)	[F12-OS1.2,OH5,OP1.2]
(3)	[F12-OS1.2,OH5,OP1.2]
(4)	[F13-OS1.2,OH5,OP1.2]
3.3.1.4. (1)	[F02,F12-OS1.2,OH5,OP1.2] [F04-OS1.3]
(2)	[F01-OH5,OP1.1] [F03,F12-OH5, OP1.2,OP3.1]
(3)	[F03,F12-OS1.2,OH5,OP1.2]
3.3.1.5. (1)	Note ¹
(2)	[F02-OH5,OP1.2,OP3.1]
(3)	[F03-OH5,OP1.2,OP3.1]
3.3.1.6. (1)	Note ¹
3.3.1.7. (1)	[F12-OS1.2,OH5,OP1.2,OP3.1]
(2)	[F12-OS1.2,OH5,OP1.2,OP3.1]
(3)	Note ¹
3.3.1.8. (1)	[F34-OH5,OP1.1]
(2)	[F34-OH5,OP1.1]
(3)	[F12-OS1.2,OH5,OP1.2]
(4)	[F12-OS1.2,OH5,OP1.2]
(5)	[F12-OS1.2,OH5,OP1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 3
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 3 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(6)	[F34-OH5,OP1.1]
3.3.1.9. (1)	[F12-OS1.2,OH5,OP1.2]
(2)	[F02-OS1.2,OH5,OP1.2]
(3)	[F02-OS1.2,OH5,OP1.2]
(4)	[F12-OS1.2,OH5,OP1.2]
3.3.1.10.	Note ¹
3.3.1.11.	[F02,F12-OS1.2,OH5,OP1.2]
Subsection 3.3.2.	Outdoor Storage of Lumber and Forest Products
3.3.2.1. (1)	Note ¹
(2)	Note ¹
3.3.2.2. (1)	[F03,F12-OP1.2,OP3.1] [F04-OS1.3,OP1.2,OP3.1]
(2)	Note ¹
3.3.2.3. (1)	[F03,F12-OP1.2,OP3.1] [F04-OS1.3,OP3.1]
(2)	Note ¹
3.3.2.4. (1)	[F03-OP1.2,OP3.1]
(2)	[F03-OP1.2,OP3.1]
(3)	[F12-OS1.2,OP1.2]
3.3.2.5. (1)	[F03-OP3.1]
(2)	Note ¹
3.3.2.6.	[F03-OP1.2,OP3.1]
3.3.2.7.	[F03-OP1.2,OP3.1]
3.3.2.8.	[F02-OP3.1,OS1.2] [F03-OP1.2]
3.3.2.9.	[F01-OS1.1] [F06-OS1.4,OP1.4] [F32-OS3.3]
3.3.2.10.	[F02-OS1.2,OP1.2]
3.3.2.11.	[F02,F12-OS1.2,OP1.2]
3.3.2.12. (1)	[F12-OS1.2,OP3.1]
(2)	[F12-OS1.2,OP1.2,OP3.1]
3.3.2.13. (1)	[F12-OS1.2,OP1.2,OP3.1]

TABLE 3
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 3 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	[F12-OS1.2,OP1.2,OP3.1]
3.3.2.14.	[F02,F03-OP1.2] [F12-OS1.2,OP1.2,OP3.1]
3.3.2.15.	[F12-OS1.2,OP1.2,OP3.1]
3.3.2.16.	RESERVED
3.3.2.17.	[F01-OS1.1,OP1.1,OP3.1]
3.3.2.18.	[F01-OS1.1,OP1.1] [F03-OS1.2,OP3.1]
3.3.2.19.	[F01-OS1.1,OP1.1] [F03-OS1.2,OP1.2,OP3.1]
3.3.2.20.	[F03-OS1.2,OP1.2]
3.3.2.21.	Note ¹
3.3.2.22.	[F01-OS1.1,OP1.1]
3.3.2.23.	[F13-OS1.2,OP1.2,OP3.1]
3.3.2.24. (1)	[F02,F12-OS1.2,OP1.2]
(2)	[F12,F81-OS1.4,OP1.4]
(3)	[F12-OS1.2,OP1.2]
(4)	[F02,F12-OS1.2,OP1.2]
3.3.2.25	Note ¹
3.3.2.26.	Note ¹
3.3.2.27.	[F12-OS1.2,OP1.2,OP3.1]
Subsection 3.3.3.	Outdoor Storage of Wood Chips
3.3.3.1. (1)	Note ¹
(2)	Note ¹
3.3.3.2.	[F12-OP1.2,OP3.1]
3.3.3.3.	[F03-OP1.2,OP3.1]
3.3.3.4. (1)	[F03-OP1.2,OP3.1]
(2)	Note ¹
3.3.3.5.	[F12-OS1.2,OP1.2,OP3.1]
3.3.3.6. (1)	[F03-OP1.2] [F12-OS1.2,OP1.2,OP3.1]
(2)	[F03-OP1.2] [F12-OS1.2,OP1.2,OP3.1]
3.3.3.7.	[F12-OS1.2,OP1.2,OP3.1]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 3
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 3 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
3.3.3.8. (1)	[F12-OS1.2,OP1.2,OP3.1]
(2)	Note ¹
3.3.3.9.	[F12-OS1.2,OP1.2,OP3.1]
3.3.3.10.	Note ¹
3.3.3.11.	[F12-OS1.2,OP1.2]
3.3.3.12. (1)	[F12-OS1.2,OP1.2,OP3.1]
(2)	[F02-OS1.2,OP1.2] [F12-OP1.2,OP3.1]
(3)	[F02,OS1.2] [F12-OP1.2,OP3.1]
3.3.3.13.	Note ¹
Subsection 3.3.4.	Outdoor Storage of Dangerous Goods
3.3.4.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
3.3.4.2. (1)	[F02-OP3.1] [F02-OS1.2]
(2)	[F03-OP3.1] [F03-OS1.2]
(3)	[F20-OS3.4] [F20-OS1.1] [F04-OS1.2,OS1.5]
3.3.4.3. (1)	Note ¹
(2)	[F43-OS3.4] [F01-OS1.1]
3.3.4.4.	[F03,F01-OS1.1]
3.3.4.5.	Note ¹
3.3.4.6.	Note ¹
3.3.4.7. (1)	[F43-OS1.1]
(2)	[F43,F81-OS3.4] [F43-OH5] [F43,F81-OS1.1]
3.3.4.8.	[F01-OS1.1] [F43-OS3.4]

TABLE 3
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 3 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 3.4	INDUSTRIAL TRUCKS
Subsection 3.4.1.	General
3.4.1.1.	[F01-OS1.1,OP1.1]
Subsection 3.4.2.	Industrial Trucks
3.4.2.1. (1)	[F03-OS1.2,OP1.2]
(2)	[F01-OS1.1,OP1.1]
(3)	[F01-OS1.1,OP1.1]
(4)	[F02,F12-OS1.2,OP1.2]
(5)	Note ¹
3.4.2.2. (1)	[F01-OS1.1,OP1.1] [F03-OS1.2,OP1.2]
(2)	[F02,F12-OS1.2,OP1.2]
(3)	[F01,F81-OS1.1,OP1.1]
3.4.2.3. (1)	[F01,F81-OS1.1,OP1.1]
SECTION 3.5	SALVAGE SHOPS AND SALVAGE YARDS
Subsection 3.5.1.	General
3.5.1.1.	[F03-OS1.2,OP1.2]
3.5.1.2.	Note ¹
3.5.1.3.	[F01-OS1.1,OP1.1] [F02-OS1.2]
3.5.1.4.	[F12-OS1.2,OP1.2]
3.5.1.5.	[F02,F12-OS1.2,OP1.2]
3.5.1.6.	Note ¹
3.5.1.7.	[F12-OS1.2,OP1.2]
3.5.1.8.	Note ¹
3.5.1.9.	[F01-OS1.1,OP1.1]
3.5.1.10.	[F13-OP1.2,OS1.2]
Subsection 3.5.2.	Piling
3.5.2.1.	[F02,F12-OS1.2,OP1.2,OP3.1] [F03-OP3.1]
3.5.2.2.	[F03-OP1.2,OP3.1] [F12-OS1.2,OP1.2,OP3.1]
3.5.2.3.	[F03-OS1.2,OP1.2,OP3.1] [F12-OP1.2,OP3.1]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 3
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 3 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
3.5.2.4. (1)	[F02,F12,F81-OS1.2,OP1.2]
(2)	[F12-OS1.2,OP1.2]
(3)	[F12-OS1.2,OP1.2]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 4.1	GENERAL
Subsection 4.1.1.	Scope
4.1.1.1. (1)	Note ¹
(2)	Note ¹
(3)	RESERVED
(4)	Note ¹
(5)	Note ¹
4.1.1.2. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
Subsection 4.1.2.	Classification
4.1.2.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
4.1.2.2. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
(6)	Note ¹
4.1.2.3. (1)	Note ¹
4.1.2.4. (1)	Note ¹
(2)	Note ¹
Subsection 4.1.3.	Flash Point
4.1.3.1. (1)	[F01-OS1.1]
(2)	[F01-OS1.1]
(3)	[F01-OS1.1]
(4)	[F01-OS1.1]
Subsection 4.1.4.	Electrical Installations
4.1.4.1. (1)	Note ¹
(2)	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 4.1.5.	Fire Prevention and Protection
4.1.5.1. (1)	[F02,F03-OS1.2] [F02,F03-OP1.2]
(2)	Note ¹
4.1.5.2.	Note ¹
4.1.5.3.	Note ¹
4.1.5.4. (1)	[F01-OS1.1]
(2)	Note ¹
4.1.5.5. (1)	Note ¹
4.1.5.6.	[F12-OS1.2] [F12-OP1.2] [F12-OP3.1]
4.1.5.7.	Note ¹
4.1.5.8. (1)	[F43,F01-OS1.1]
(2)	[F02,F43-OS1.1]
(3)	Note ¹
4.1.5.9.	Note ¹
Subsection 4.1.6.	Spill Control and Drainage Systems
4.1.6.1. (1)	[F44-OS1.1,OS1.2,OP1.1,OP1.2,OH5]
(2)	Note ¹
(3)	[F44-OH5] [F44-OS1.1,OS1.2]
(4)	Note ¹
4.1.6.2. (1)(a)	[F44-OS1.1,OS1.2,OS1.4,OP1.1,OP1.2,OH5]
(b)	[F44-OS1.1,OS1.2,OS1.4,OP1.1,OP1.2]
(2)	[F03-OS1.2]
4.1.6.3. (1)	[F82,F44-OS1.1,OS1.2,OP1.1,OP1.2]
(2)	[F44-OP1.1,OP1.2,OS1.1,OS1.2,OH5]
(3)(a)	[F01,F02-OS1.1] [F44-OP1.1,OP1.2]
(b)	[F02-OS1.1,OS1.2] [F02-OP1.1,OP1.2]
4.1.6.4. (1)	[F02-OS1.2,OP1.2] [F44-OS1.2,OP1.2,OP3.1]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)(a)	[F43,F81-OS1.1,OP1.1]
(b)	[F01-OS1.1,OP1.1]
(c)	[F01-OS1.1,OP1.1]
(d)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2] [F44-OS1.1,OS1.2,OP1.1,OP1.2]
(e)	[F12-OS1.2,OP1.2]
(f)	[F12-OS1.1,OS1.2,OP1.1,OP1.2]
(g)	[F82-OS1.1,OS1.2,OP1.1,OP1.2]
(h)	[F12-OS1.1,OS1.2,OP1.1,OP1.2]
(3)	[F12-OS1.1,OS1.2,OP1.1,OP1.2]
Subsection 4.1.7.	Ventilation
4.1.7.1.	Note ¹
4.1.7.2. (1)	[F01-OS1.1]
(2)	Note ¹
(3)	[F01-OS1.1]
(4)	[F01-OS1.1,OP1.1]
(5)(a)	[F01-OS1.1]
(b)	[F11-OS1.1]
(c)	[F01,F02-OS1.1,OS1.2] [F02-OP1.2]
4.1.7.3. (1)	[F01-OS1.1]
(2)	Note ¹
(3)	[F01-OS1.1]
(4)	[F01-OS1.1]
4.1.7.4. (1)(a)	[F01-OS1.1]
(b)	[F03-OP1.2] [F03-OP3.1] [F01-OS1.1] [F03-OS1.2]
4.1.7.5. (1)	[F01-OS1.1]
(2)	[F01,F44-OS1.2]
(3)	[F03-OS1.2] [F03-OP1.2]
4.1.7.6. (1)	[F01,F11-OS1.1]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
4.1.7.7.	[F01,F44-OS1.1,OS1.2] [F03-OS1.2] [F01,F44-OP1.1,OP1.2] [F03-OP1.2]
4.1.7.8.	[F82-OS1.1]
Subsection 4.1.8.	Handling of Flammable and Combustible Liquids
4.1.8.1. (1)	Note ¹
(2)	[F43-OS1.1]
(3)	[F43-OS1.1]
4.1.8.2. (1)	[F01-OS1.1]
(2)	[F01-OS1.1]
(3)	Note ¹
(4)	[F22-OS1.1]
4.1.8.3. (1)(a)	Note ¹
(b)	[F43-OS1.1]
(c)	[F43-OS1.1]
(2)	[F20,F81,F01-OS1.1]
4.1.8.4. (1)	[F01,F43,F81-OS1.1]
(2)	[F43-OS1.1]
SECTION 4.2	CONTAINER STORAGE AND HANDLING
Subsection 4.2.1.	Scope
4.2.1.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
Subsection 4.2.2.	General
4.2.2.1. (1)	[F10,F12,F05,F06-OS1.5] Applies to storage in or adjacent to exits or principal routes that provide access to exits. [F03-OS1.2] Applies to storage near elevators.
4.2.2.2. (1)	[F01,F43-OS1.1] [F43-OS3.4] [F10,F30-OS3.7] [F01,F43-OP1.1] [F43-OH5]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)(a)	[F43-OS3.4] [F43-OH5]
(b)	[F01,F43-OS1.1] [F01,F43-OP1.1]
4.2.2.3. (1)	Note ¹
(2)	Note ¹
Subsection 4.2.3.	Containers and Portable Tanks
4.2.3.1. (1)	[F20,F43,F80,F81-OH5] [F20,F43,F80,F81,F01,F04-OS1.1]
4.2.3.2. (1)	[F81-OS1.1] [F12-OS1.1,OS1.2]
(2)	Note ¹
4.2.3.3. (1)	Note ¹
Subsection 4.2.4.	Assembly and Residential Occupancies
4.2.4.1.	Note ¹
4.2.4.2. (1)	Note ¹
(2)	[F02-OS1.2,OP1.2]
(3)	[F02-OS1.2,OP1.2]
(4)	[F02,F03-OS1.2,OP1.2]
4.2.4.3. (1)	[F01-OS1.1,OP1.1] [F12-OS1.2,OP1.2]
(2)	Note ¹
4.2.4.4.	[F03-OS1.2,OP1.2]
4.2.4.5.	[F02-OS1.2,OP1.2]
4.2.4.6.	[F02-OS1.2,OP1.2]
Subsection 4.2.5.	Mercantile Occupancies
4.2.5.1.	Note ¹
4.2.5.2. (1)	Note ¹
(2)	[F02-OS1.2,OP1.2]
(3)	[F02-OS1.2,OP1.2]
(4)	Note ¹
(5)	[F02,F03-OS1.2,OP1.2]
4.2.5.3. (1)	[F01,F43-OS1.1]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	[F04-OS1.5,OP1.2] [F20-OS1.1,OS1.2] [F20-OH5]
(3)	[F01,F43-OS1.2]
4.2.5.4. (1)	[F01,F43-OS1.1]
(2)	Note ¹
Subsection 4.2.6.	Business and Personal Services, Educational, Care, Care and Treatment and Detention Occupancies
4.2.6.1.	Note ¹
4.2.6.2. (1)	[F02,F03-OS1.2,OP1.2] [F01,F43-OS1.1] Applies to “Except as permitted in Article 4.2.6.3., flammable liquids and combustible liquids shall be kept in closed containers ”.
4.2.6.3. (1)	[F02,F03-OS1.2,OP1.2]
(2)	[F02-OS1.2,OP1.2]
4.2.6.4.	[F01,F04,F43-OS1.1] [F02-OS1.2]
4.2.6.5.	[F03-OS1.2]
Subsection 4.2.7.	Industrial Occupancies
4.2.7.1.	Note ¹
4.2.7.2. (1)	[F02,F03-OS1.2,OP1.2]
4.2.7.3.	[F03-OS1.2,OP1.2]
4.2.7.4. (1)	[F01,F02,F03-OS1.2] [F01,F02,F03-OP1.2]
(2)	[F02,F01-OS1.2,OS1.1] [F01,F02-OP1.1,OP1.2]
4.2.7.5. (1)	[F03,F02-OS1.2] [F43,F01-OS1.1] [F20-OS1.1,OS1.2] [F04-OS1.2,OS1.5] [F04-OP1.2] [F20-OH5] [F03,F02-OP1.2]
(2)	[F03-OS1.2,OP1.2]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
4.2.7.6.	[F02-OS1.2,OP1.1]
4.2.7.7. (1)	[F04-OS1.3,OP1.3]
(2)	[F02-OS1.2,OP1.2]
(3)	[F81,F82-OS1.1] [F10-OS1.5]
4.2.7.8.	Note ¹
4.2.7.9.	Note ¹
4.2.7.10.	Note ¹
4.2.7.11.	Note ¹
4.2.7.12.	Note ¹
Subsection 4.2.8.	Incidental Use
4.2.8.1.	Note ¹
4.2.8.2. (1)	[F02-OS1.2,OP1.2]
(2)	[F02-OS1.2,OP1.2]
(3)	[F02-OS1.2,OP1.2]
4.2.8.3. (1)(a)	[F01-OS1.1]
(b)	Note ¹
(c)	Note ¹
(d)	Note ¹
(e)	Note ¹
4.2.8.4. (1)	[F02,F03-OS1.2,OP1.2]
(2)	Note ¹
(3)	Note ¹
(4)	[F02-OS1.2,OP1.2]
(5)	Note ¹
(6)	Note ¹
Subsection 4.2.9.	Rooms for Container Storage and Dispensing
4.2.9.1. (1)	[F02-OS1.2,OP1.2]
(2)	[F02-OS1.2,OP1.2]
(3)	Note ¹
4.2.9.2. (1)	[F44-OS1.1,OS1.2,OP1.2,OH5]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	Note ¹
4.2.9.3.	[F81,F82-OS1.1,OS1.2] [F12-OS1.2] [F10-OS1.5] [F12-OP1.2]
4.2.9.4.	[F43,F01-OS1.1]
4.2.9.5.	Note ¹
4.2.9.6.	Note ¹
4.2.9.7.	Note ¹
Subsection 4.2.10.	Cabinets for Container Storage
4.2.10.1.	Note ¹
4.2.10.2.	[F02-OS1.2,OP1.2]
4.2.10.3. (1)	[F02-OS1.2,OP1.2]
(2)	[F02-OS1.2,OP1.2]
(3)	[F02-OS1.2,OP1.2]
4.2.10.4.	[F01-OS1.1]
4.2.10.5. (1)	[F01-OS1.1] [F03-OS1.2,OP1.2] [F44-OS1.1,OP1.1,OH5]
(2)	Note ¹
4.2.10.6. (1)	[F01-OS1.1,OP1.1] [F03-OS1.2,OP1.2]
Subsection 4.2.11.	Outdoor Container Storage
4.2.11.1. (1)	[F02,F03-OS1.2,OP3.1]
(2)	[F02,F03-OS1.2,OP3.1]
4.2.11.2.	Note ¹
4.2.11.3.	[F12-OP3.1]
4.2.11.4.	Note ¹
4.2.11.5. (1)	[F34-OS1.1]
(2)	[F12-OP3.1]
(3)	Note ¹
Subsection 4.2.12.	Self-Service Storage Buildings
4.2.12.1.	Note ¹
4.2.12.2.	[F02-OS1.2,OP1.2]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
4.2.12.3.	[F01,F43-OS1.1,OP1.1]
SECTION 4.3	STORAGE TANKS
Subsection 4.3.1.	Design, Construction and Use of Storage Tanks
4.3.1.1.	Note ¹
4.3.1.2. (1)	[F20,F80,F43,F81,F01-OS1.1] [F20,F80,F43,F81-OH5]
(2)(a)	Note ¹
(b)	[F04,F81-OS1.1]
(3)	Note ¹
(4)	[F01,F20,F81-OS1.1] [F20,F81-OH5]
(5)	Note ¹
4.3.1.3. (1)	[F43,F80,F81,F20,F01-OS1.1] [F43,F80,F81,F20-OH5]
(2)	[F81,F80,F43,F01,F20-OS1.1] [F43,F81,F80,F20-OH5]
(3)	Note ¹
4.3.1.4.	[F81,F20-OS1.1] [F81,F20-OH5]
4.3.1.5.	[F80-OS1.1,OH5]
4.3.1.6.	[F04-OS1.1]
4.3.1.7. (1)	[F81-OS1.1] [F12-OS1.2] [F12-OP1.2]
(2)	Note ¹
4.3.1.8. (1)	[F43-OS1.1,OP1.1,OH5]
(2)	[F43-OS1.1,OP1.1,OH5]
(3)	[F43-OS1.1,OP1.1,OH5]
(4)	Note ¹
4.3.1.9.	[F81,F80,F43,F01,F20-OS1.1] [F81,F80,F43,F01,F20-OH5]
4.3.1.10. (1)	[F01,F20,F43,F80,F81-OS1.1] [F20,F43,F80,F81-OH5]
(2)	[F01,F20,F43,F80,F81-OS1.1] [F20,F43,F80,F81-OH5]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(3)	[F01,F20,F43,F80,F81-OS1.1] [F20,F43,F80,F81-OH5]
(4)	Note ¹
(5)	Note ¹
Subsection 4.3.2.	Installation of Outside Aboveground Storage Tanks
4.3.2.1. (1)	Note ¹
(2)	[F03-OS1.2,OP3.1]
(3)	[F03-OS1.2,OP3.1]
(4)	[F03-OS1.2,OP3.1]
(5)	[F03-OS1.2,OP3.1]
(6)	Note ¹
(7)	Note ¹
(8)	[F02-OP3.1]
4.3.2.2. (1)	[F03,F12-OP1.2] Applies to the minimum distance being 0.25 times the sum of the storage tanks' diameters. [F82-OS1.1,OP1.1] Applies to the minimum distance of 1 m between the storage tanks. Note ¹ Applies to all other text.
(2)	[F82-OS1.1,OP1.1]
(3)	[F03-OP1.2]
4.3.2.3. (1)	[F03-OS1.2,OP1.2]
(2)	Note ¹ Applies to “Secondary containments for flammable liquid or combustible liquid storage tanks shall not contain any liquefied petroleum gas cylinder or tank”. [F02,F03,F12-OS1.2,OP1.2] Applies to all other text.
4.3.2.4. (1)	[F12-OP1.2]
(2)	[F12-OP1.2]
(3)	[F02,F03,F12-OP1.2]
4.3.2.5. (1)	Note ¹
(2)	Note ¹

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 4.3.3.	Supports, Foundations and Anchorage for Aboveground Storage Tanks
4.3.3.1. (1)	[F22,F81,F20-OS1.1,OH5] [F02-OS1.2]
(2)	[F22,F80-OS1.1,OP1.1]
(3)	[F04-OS1.2]
(4)	[F20,F81-OS1.1,OH5]
4.3.3.2. (1)	[F22-OS1.1,OH5]
4.3.3.3.	[F22-OS1.1,OH5]
Subsection 4.3.4.	Normal and Emergency Venting for Aboveground Storage Tanks
4.3.4.1. (1)	[F04-OS1.2,OP1.2] [F20-OS1.1,OS1.2,OP1.1,OP1.2]
4.3.4.2.	[F20,F81,F04-OS1.1,OH5]
Subsection 4.3.5.	Vent Piping for Aboveground Storage Tanks
4.3.5.1.	Note ¹
4.3.5.2. (1)	[F01-OS1.1]
(2)	[F01-OS1.1]
(3)	[F01-OS1.1]
4.3.5.3. (1)	[F20,F81-OS1.1,OH5]
(2)	[F01,F81-OS1.1,OP1.1]
Subsection 4.3.6.	Openings Other than Vents in Aboveground Storage Tanks
4.3.6.1. (1)	[F44-OS1.1,OP1.1,OH5]
(2)	[F44-OS1.1,OP1.1,OH5]
4.3.6.2. (1)	[F04,F20-OS1.1,OH5]
(2)	[F20,F04-OS1.1,OH5]
4.3.6.3.	[F43,F01,F81,F34-OS1.1] [F43,F81,F34-OH5]
4.3.6.4. (1)	[F01-OS1.1]
(2)	[F43,F01,F81,F34-OS1.1] [F43,F81,F34-OH5]
(3)	[F01-OS1.1]
(4)	[F01,F43-OS1.1,OP1.1] [F43-OH5]
Subsection 4.3.7.	Secondary Containment for Aboveground Storage Tanks
4.3.7.1. (1)	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	Note ¹
(3)	Note ¹
4.3.7.2. (1)	[F04-OS1.1,OP1.1] Applies to the construction of the base and walls of secondary containments with noncombustible materials. [F20-OS1.1,OP1.1,OH5] Applies to the base and walls of secondary containments being designed, constructed and maintained to withstand full hydrostatic head. [F44-OS1.1,OP1.1,OH5] Applies to the base and walls of secondary containments being designed, constructed and maintained to provide the stated permeability.
(2)	[F43,F44-OS1.1,OP1.1,OH5]
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
4.3.7.3. (1)	[F44-OS1.1,OP1.1,OH5]
(2)	[F44-OS1.1,OP1.1,OH5]
(3)	[F44-OS1.1,OP1.1,OH5]
4.3.7.4. (1)	[F01,F82-OS1.1,OP1.1] [F12-OS1.2,OP1.2] [F82-OH5]
(2)	Note ¹
(3)	[F43,F81-OS1.1,OP1.1,OH5]
(4)	Note ¹
4.3.7.5. (1)(a)	[F82-OS1.1,OP1.1] [F12-OS1.2,OP1.2] [F82,F12-OH5]
(b)	[F10-OS1.5,OS3.4]
(c)	[F12-OS1.2,OP1.2]
(2)	[F12-OS1.1,OP1.1,OH5]
4.3.7.6.	[F04-OS1.2,OP1.2]
4.3.7.7.	[F82-OS1.1,OP1.1,OH5]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
4.3.7.8. (1)	[F81,F44-OS1.1,OP1.1,OH5] [F12-OS1.2,OP1.2] [F01,F02-OS1.1] Applies to the accumulation of liquids and debris.
(2)	Note ¹
(3)(a)	[F44-OS1.1,OP1.1,OH5]
(b)	[F12-OS1.1,OP1.1]
(c)	[F12-OS1.1,OP1.1]
4.3.7.9.	Note ¹
Subsection 4.3.8.	Installation of Underground Storage Tanks
4.3.8.1. (1)	[F43,F44-OH5,OS3.4] [F01,F43,F44-OS1.1,OP1.1]
(2)	Note ¹
4.3.8.2. (1)	[F20,F81-OS1.1,OH5]
(2)(a)	[F20,F21-OS1.1] [F20,F21-OH5]
(b)	[F20,F21-OS1.1,OH5] [F01-OS1.1,OP3.1] Apply to the distance from a building foundation. [F81-OS1.1,OH5] Applies to the distance from street lines. Note ¹ Applies to all other text.
(c)	[F81-OS1.1,OH5]
4.3.8.3. (1)	[F20,F81-OS1.1] [F20,F81-OH5]
(2)	[F20,F81-OS1.1] [F20,F81-OH5]
(3)	[F20,F81-OS1.1] [F20,F81-OH5]
(4)	[F81,F04,F20-OS1.1] [F81,F04,F20-OH5]
4.3.8.4. (1)	[F82-OH5,OS1.1]
(2)	[F82-OH5,OS1.1]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
4.3.8.5. (1)	[F81-OS1.1,OH5]
(2)	Note ¹
4.3.8.6. (1)	[F81-OS1.1,OH5]
(2)	[F81-OS1.1,OH5]
(3)	[F20-OS1.1,OH5]
4.3.8.7. (1)	[F43-OS1.1,OH5]
4.3.8.8.	Note ¹
4.3.8.9. (1)	[F22-OS1.1,OH5]
(2)	[F81-OS1.1,OH5]
Subsection 4.3.9.	Sumps
4.3.9.1. (1)	[F44-OH5,OS3.4] [F01,F44-OS1.1,OP1.1]
(2)	[F43,F44-OH5,OS3.4] [F01,F43,F44-OS1.1,OP1.1]
(3)	[F43,F44-OH5] [F30,F43,F44-OS3.4] [F01,F43,F44-OS1.1] [F01,F43,F44-OP1.1]
(4)	[F44,F82-OH5] [F44,F82-OS3.4] [F01,F44,F82-OS1.1] [F01,F44,F82-OP1.1]
(5)	Note ¹
4.3.9.2.	[F20,F44,F80,F81-OH5] [F20,F44,F80,F81-OS3.4] [F20,F01,F44,F80,F81-OS1.1] [F20,F01,F44,F80,F81-OP1.1]
4.3.9.3.	[F43,F82-OS1.1] [F43,F82-OS3.4] [F43,F82-OP1.1] [F43,F82-OH5]
Subsection 4.3.10.	Corrosion Protection of Underground Steel Storage Tanks
4.3.10.1. (1)	[F80-OS1.1,OH5]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 4.3.11.	Vents for Underground Storage Tanks
4.3.11.1.	[F20,F81-OS1.1] [F20,F81-OH5]
4.3.11.2.	Note ¹
4.3.11.3. (1)	[F01,F43-OS1.1,OP1.1]
(2)	[F01,F43-OS1.1,OP1.1]
(3)	[F20,F81-OS1.1,OP1.1]
(4)	[F20,F81-OS1.1] [F20,F81-OH5]
(5)	[F20,F22,F81-OS1.1,OP1.1]
(6)	Note ¹
(7)	Note ¹
4.3.11.4. (1)	[F20,F81-OS1.1] [F20,F81-OH5]
(2)	[F20-OS1.1] [F20-OH5]
(3)	[F01-OS1.1]
Subsection 4.3.12.	Openings Other than Vents in Underground Storage Tanks
4.3.12.1.	[F43,F01-OS1.1] [F43-OH5]
4.3.12.2.	[F43,F01,F81,F34-OS1.1] [F43,F81,F34-OH5]
4.3.12.3. (1)	[F43-OS1.1,OP1.1]
(2)	[F43-OS1.1,OH5]
(3)	[F01-OS1.1]
(4)	[F43,F01-OS1.1] [F43-OH5]
(5)	[F01-OS1.1]
(6)(a)	[F43,F44,F82-OH5] [F43,F44,F82-OS3.4] [F01,F43,F44,F82-OS1.1] [F01,F43,F44,F82-OP1.1]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(b)	[F01,F43-OS1.1] [F01,F43-OP1.1] [F43-OH5]
(c)	[F43,F44,F82-OS3.4] [F01,F43,F44,F82-OP1.1] [F43,F44,F82-OH5]
(7)	[F01,F43-OS1.1] [F01,F43-OS3.4] [F01,F43-OH5]
(8)	Note ¹
Subsection 4.3.13.	Installation of Storage Tanks inside Buildings
4.3.13.1. (1)	[F01,F02-OS1.2,OP1.2]
4.3.13.2.	[F01,F02,F03,F04,F43,F81-OS1.1,OS1.2]
4.3.13.3.	[F20-OS1.1,OH5]
4.3.13.4. (1)(a)	Note ¹
(b)	[F01-OS1.1] [F02-OS1.2] [F01-OP1.1] [F02-OP1.2]
(2)	Note ¹
(3)	Note ¹
4.3.13.5. (1)(a)	[F01,F20,F43,F80,F81-OS1.1] [F01,F20,F43,F80,F81-OP1.1]
(b)	[F01,F43,F82-OS1.1] [F01,F43,F82-OP1.1] [F20,F43,F80,F81-OH5]
(2)(a)	[F01,F43,F82-OS1.1] [F01,F43,F82-OP1.1] [F20,F43,F80,F81-OH5]
(b)	Note ¹
4.3.13.6.	[F01-OS1.1,OP1.1]
4.3.13.7.	[F03-OP1.2,OS1.2]
4.3.13.8.	Note ¹
4.3.13.9. (1)(a)	[F01-OS1.1] [F44-OS1.1,OP1.1,OH5]
(b)	Note ¹

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(c)	Note ¹
4.3.13.10. (1)	Note ¹
(2)	Note ¹
4.3.13.11. (1)	Note ¹
(2)	Note ¹
4.3.13.12.	[F01-OS1.1]
Subsection 4.3.14.	Rooms for Storage Tanks
4.3.14.1. (1)(a)	[F03-OP1.2,OS1.2]
(b)	[F44-OS1.1,OP1.1,OH5] Applies to "... designed to contain ... 100% of the volume of the largest storage tank". Note ¹ Applies to all other text.
(c)	[F44-OS1.1,OS1.2,OH5,OP1.1,OP1.2]
(d)	Note ¹
(e)	Note ¹
4.3.14.2.	[F82-OS1.1,OP1.1,OH5]
4.3.14.3.	[F02-OS1.2,OP1.2] [F04-OS1.3,OP1.3]
4.3.14.4. (1)	[F12-OS1.2,OP1.2]
(2)	Note ¹
4.3.14.5. (1)	[F12-OS1.2,OP1.2]
(2)	Note ¹
Subsection 4.3.15.	Openings Other than Vents in Storage Tanks inside Buildings
4.3.15.1. (1)	[F43,F01-OS1.1] [F43-OH5]
(2)	[F44-OS1.1,OH5,OP1.1]
(3)	Note ¹
4.3.15.2. (1)	[F43,F01,F81,F34-OS1.1] [F43,F81-OH5]
(2)	[F20,F81-OS1.1] [F20,F81-OH5]
Subsection 4.3.16.	Out of Service
4.3.16.1. (1)	[F82,F01,F43,F81-OS1.1] [F82,F81-OH5]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	[F82-OS1.1,OP1.1]
(3)	Note ¹
4.3.16.2. (1)(a)	[F01,F43-OS1.1,OP1.1]
(b)	[F01-OS1.1,OP1.1]
(c)	[F81-OS1.1,OP1.1]
(2)	[F44-OS1.1,OP1.1]
4.3.16.3. (1)	[F81-OS1.1,OP1.1]
(2)	[F81-OS1.1,OP1.1]
4.3.16.4. (1)	[F34-OS1.1,OH5]
(2)	[F82-OS1.1,OP1.1,OH5]
(3)(a)	[F43,F01-OS1.1] [F43-OH5]
(b)	[F81-OS1.1,OP1.1]
4.3.16.5.	[F81-OS1.1,OH5]
4.3.16.6. (1)	[F01,F43,F81,F82-OS1.1] [F43,F81,F82-OH5]
4.3.16.7.	[F80-OS1.1,OP1.1]
SECTION 4.4	LEAK DETECTION OF STORAGE TANKS AND PIPING SYSTEMS
Subsection 4.4.1.	General
4.4.1.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
4.4.1.2. (1)	[F82-OS1.1,OH5,OP1.1]
(2)	Note ¹
(3)	[F82-OS1.1,OH5,OP1.1]
(4)	Note ¹
(5)	Note ¹
(6)	[F43,F44-OS3.4] [F01,F43,F44-OS1.1,OP1.1]
(7)	Note ¹
4.4.1.3. (1)	[F01,F44,F82-OS1.1] [F44,F82-OH5] [F01,F44,F82-OP1.1]
(2)	Note ¹

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(3)	Note ¹
(4)	[F12-OS1.2,OP1.2] [F43,F82-OS1.1,OP1.1]
4.4.1.4.	Note ¹
Subsection 4.4.2.	Leak Detection Testing and Monitoring Methods
4.4.2.1. (1)	Note ¹
(2)	[F82,F01-OS1.1,OP1.1] [F82,F43-OH5]
(3)	Note ¹
(4)	[F01-OS1.1,OP1.1] [F43-OH5]
(5)	[F01,F43,F82-OS1.1,OP1.1] [F43,F82-OH5]
(6)	Note ¹
(7)	[F01,F43,F82-OS1.1,OP1.1] [F43,F82-OH5]
(8)	[F82,F81-OS1.1] [F43,F82-OH5] [F82-OP1.1]
(9)	Note ¹
(10)	[F01,F82-OS1.1] [F82-OH5]
(11)	[F01,F82-OS1.1,OP1.1] [F82-OH5]
(12)	[F82-OS1.1,OP1.1,OH5]
Subsection 4.4.3.	Leak Detection Testing of Storage Tanks, Piping Systems and Sumps
4.4.3.1. (1)	[F01,F82-OS1.1,OP1.1] [F43,F82-OH5]
(2)	Note ¹
(3)	[F20,F81-OS1.1]
4.4.3.2. (1)	[F01-OS1.1]
(2)	[F81-OS1.1,OH5,OP1.1]
(3)	Note ¹
(4)	[F20,F81-OS1.1,OS3.4]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(5)	[F20,F81-OS1.1,OS3.4]
(6)	[F01-OS1.1]
4.4.3.3. (1)	Note ¹
(2)	Note ¹
(3)	[F43-OS1.1,OH5]
(4)	[F43-OS1.1,OH5]
(5)	[F82-OS1.1,OH5,OP1.1]
(6)	[F82-OS1.1,OH5,OP1.1]
(7)	[F82-OS1.1,OH5,OP1.1]
(8)	Note ¹
(9)	Note ¹
4.4.3.4. (1)	Note ¹
(2)	[F01,F82-OS1.1,OP1.1]
(3)	[F01,F82-OS1.1,OP1.1] [F43,F82-OH5]
(4)	[F82-OS1.1,OH5,OP1.1]
(5)	[F20,F81-OS1.1]
(6)	Note ¹
(7)	[F81-OS1.1,OH5,OP1.1]
(8)	[F43-OS1.1]
(9)	Note ¹
4.4.3.5. (1)	Note ¹
(2)	Note ¹
(3)	[F82-OS1.1,OH5,OP1.1]
(4)	[F82-OS1.1,OH5]
Subsection 4.4.4.	Leak Detection Monitoring of Storage Tanks and Piping Systems
4.4.4.1. (1)	[F82-OS1.1,OH5,OP1.1]
(2)	[F82-OS1.1,OH5]
(3)	[F82-OS1.1,OP1.1]
(4)	[F82-OS1.1,OH5,OP1.1]
(5)	Note ¹
4.4.4.2.	[F81,F82-OS1.1,OH5]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 4.5	PIPING AND TRANSFER SYSTEMS
Subsection 4.5.1.	Scope
4.5.1.1. (1)	Note ¹
(2)	Note ¹
Subsection 4.5.2.	Materials for Piping, Valves and Fittings
4.5.2.1. (1)	[F20-OS1.1,OP1.1,OH5] Applies to the suitability of materials for the maximum anticipated working pressures and operating temperatures. [F80-OS1.1,OP1.1,OH5] Applies to the suitability of materials for the chemical properties of the contained liquid.
(2)(a)	Note ¹
(b)	[F04-OS1.1,OH5,OP1.1]
(3)	[F20,F80-OS1.1,OP1.1,OH5]
(4)	[F20,F43,F80,F81-OS1.1,OP1.1,OH5]
(5)	[F20,F43,F80,F81-OS1.1,OP1.1,OH5]
(6)	Note ¹
4.5.2.2.	[F80,F81,F20-OS1.1,OP1.1,OH5]
Subsection 4.5.3.	Corrosion Protection of Piping Systems
4.5.3.1. (1)	[F80-OS1.1,OP1.1,OH5]
(2)	[F80-OS1.1,OP1.1]
Subsection 4.5.4.	Identification of Piping Systems
4.5.4.1. (1)	[F12-OS1.2] [F81-OS1.1]
(2)	[F81-OS1.1,OH5]
(3)	[F12-OS1.2,OP1.2] [F81-OS1.1]
(4)	Note ¹
4.5.4.2. (1)	[F12-OS1.2,OP1.2,OH5]
(2)	[F12-OS1.2,OP1.2,OH5]
Subsection 4.5.5.	Joints in Piping Systems
4.5.5.1.	[F43-OS1.1,OP1.1,OH5]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
4.5.5.2. (1)	[F20-OP1.1,OH5,OS1.1] Applies to welding of piping for flammable liquids or combustible liquids conforming to API STD 1104, “Welding of Pipelines and Related Facilities”. Note ¹ Applies to all other text.
(2)	Note ¹
(3)	[F01-OS1.1]
4.5.5.3. (1)	[F20,F43,F80,F81-OS1.1,OP1.1,OH5]
(2)	Note ¹
4.5.5.4.	[F04-OS1.1,OH5,OP1.1]
4.5.5.5.	[F04-OS1.2,OH5,OP1.2] [F20-OS1.1,OP1.1]
4.5.5.6. (1)(a)	[F82-OS1.1,OP1.1,OH5]
(b)	[F80-OS1.1,OP1.1,OH5]
(c)	[F01,F43,F44-OS3.4,OS1.1,OP1.1] [F43,F44-OH5]
4.5.5.7. (1)	[F43,F81-OH5,OS3.4] [F01,F43-OS1.1,OP1.1]
(2)	Note ¹
Subsection 4.5.6.	Location and Arrangement of Piping
4.5.6.1. (1)	[F43,F44-OH5,OS3.4] [F01,F43,F44-OS1.1,OP1.1]
(2)	Note ¹
4.5.6.2. (1)	[F43-OS1.1,OP1.1]
(2)	[F43-OS1.1,OP1.1,OH5]
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
4.5.6.3. (1)	[F20,F22-OS1.1,OP1.1,OH5]
(2)	[F80-OS1.1,OP1.1,OH5]
(3)	[F80,F82-OS1.1,OP1.1,OH5]
4.5.6.4. (1)(a)	[F01-OS1.1,OS1.2,OP1.1,OP1.2]
(b)	[F01,F04-OS1.1,OP1.1]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	[F44-OS1.1,OP1.1] Applies to the requirement for impermeable construction. [F02-OS1.2,OP1.2] Applies to the requirement for noncombustible construction . Note ¹ Applies to all other text.
(3)	[F81-OS1.1,OP1.1,OH5]
(4)	[F04,F21-OS1.1,OP1.1] [F04,F21-OH5] Applies to designing to prevent excessive stress resulting from settlement.
4.5.6.5.(1)	[F21,F81-OS1.1,OP1.1,OH5]
(2)	[F81,F20-OS1.1,OP1.1,OH5]
(3)	[F81,F21-OS1.1,OP1.1,OH5]
(4)	Note ¹
4.5.6.6. (1)(a)	[F20,F22-OS1.1,OP1.1,OH5]
(b)	[F20,F21,F81-OS1.1,OP1.1,OH5]
4.5.6.7.	Note ¹
4.5.6.8. (1)	[F21,F82-OS1.1,OP1.1,OH5]
(2)	[F44-OS1.1,OP1.1,OH5]
(3)	[F21-OS1.1,OP1.1,OH5]
4.5.6.9. (1)	[F81-OS1.1,OP1.1]
(2)	[F02-OS1.2,OP1.2] [F04-OS1.1,OP1.1]
(3)	[F02,F03-OS1.2,OP1.2]
4.5.6.10. (1)	Note ¹
(2)	Note ¹
4.5.6.11. (1)	[F81-OS1.1,OP1.1]
(2)	[F20-OS1.1,OP1.1]
(3)	[F20-OS1.1,OP1.1]
(4)	[F20-OS1.1,OP1.1]
4.5.6.12. (1)	[F20-OS1.1,OP1.1]
(2)	[F20-OS1.1,OP1.1]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
4.5.6.13. (1)	[F81-OS1.1,OP1.1]
4.5.6.14. (1)	[F21-OS1.1,OP1.1,OH5]
(2)	[F20,F21,F81-OS1.1,OP1.1,OH5]
Subsection 4.5.7.	Valves in Piping Systems
4.5.7.1. (1)	[F20,F81-OS1.1,OP1.1,OH5]
(2)	[F20,F81-OS1.1,OP1.1,OH5]
(3)	[F20,F81-OS1.1,OP1.3,OH5]
(4)	Note ¹
4.5.7.2. (1)	[F44-OS1.1,OP1.1,OH5]
(2)	[F12,F44-OS1.1,OP1.1,OH5]
(3)	[F04,F20-OS1.1,OP1.1,OH5] Applies to the requirement for steel shut-off valves. [F12,F44-OS1.1,OP1.1,OH5] Applies to the requirement for shut-off valves.
(4)	Note ¹
4.5.7.3.	Note ¹
4.5.7.4.	[F20-OS1.1,OP1.1,OH5]
4.5.7.5.	[F12-OS1.1,OP1.1,OH5]
4.5.7.6. (1)	[F12,F81-OS1.1,OP1.1] [F12-OH5]
(2)	[F12,F81-OS1.1,OP1.1] [F12-OH5]
(3)	Note ¹
Subsection 4.5.8.	Heating of Piping Systems
4.5.8.1.	[F01,F20,F81-OS1.1]
4.5.8.2. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
4.5.8.3.	Note ¹
4.5.8.4. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
4.5.8.5. (1)	Note ¹
(2)	[F01,F81-OS1.1,OP1.1]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 4.5.9.	Methods of Transfer in Piping Systems
4.5.9.1. (1)	[F01-OS1.1,OP3.1]
4.5.9.2. (1)	Note ¹
(2)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
4.5.9.3. (1)	[F20,F81-OS1.1,OH5]
(2)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2] Apply to the size of pits not being larger than required for inspection and maintenance. [F81-OS1.1] Applies to the requirement for the pits to be provided with a cover.
4.5.9.4.	[F44-OS1.1,OP1.1,OH5] Applies to the requirement to have control switches to shut down the pumps in case of emergency. [F12-OS1.1,OP1.1,OH5] Applies to the requirement to locate one of the two control switches in the operating area and the other at a remote location.
4.5.9.5. (1)	Note ¹
(2)	[F20,F81,F82-OS1.1,OP1.1,OH5]
(3)	[F20,F81-OS1.1,OP1.1,OH5]
(4)	[F20,F81-OS1.1,OP1.1,OH5]
(5)	[F20,F81-OS1.1,OP1.1,OH5]
(6)	[F81-OS1.1,OP1.1,OH5]
4.5.9.6. (1)	[F20,F81,F82-OS1.1,OP1.1,OH5]
(2)	[F20,F81-OS1.1,OP1.1,OH5]
(3)	[F20,F81-OS1.1,OP1.1,OH5]
(4)	[F04,F81-OS1.1,OH5,OP1.1]
4.5.9.7. (1)	[F01-OS1.1]
(2)	[F01-OS1.1]
Subsection 4.5.10.	Operating Procedures for Piping Systems
4.5.10.1.	[F12-OS1.1,OP1.1,OH5]
4.5.10.2. (1)(a)	[F12-OS1.1,OP1.1,OH5]
(b)	[F12-OS1.1,OP1.1,OH5]
(c)	[F12-OS1.2,OP1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(d)	[F12-OS1.1,OP1.1,OH5] [F81-OS1.1,OP1.1]
(2)	[F12-OS1.2,OP1.2] Applies to the training of persons in the location, function and operation of valves used for the operation of fire protection equipment. [F12-OS1.1,OP1.1,OH5] Applies to the training of persons in the location, function and operation of valves used for the operation of manual emergency shut-off valves.
4.5.10.3.	[F12-OS1.1,OS1.2,OP1.1,OP1.2] [F12-OH5] Applies to the requirement for signs indicating the location of valves used for the operation of manual emergency shut-off valves.
4.5.10.4.	[F02,F12-OS1.2,OP1.2]
4.5.10.5. (1)	[F82-OS1.1,OP1.1,OH5]
(2)	[F82-OS1.1,OP1.1,OH5]
(3)	[F82-OS1.1,OP1.1,OH5]
(4)	Note ¹
4.5.10.6.	[F82-OS1.1,OP1.1,OH5]
4.5.10.7. (1)	[F01,F43-OS1.1] [F43-OH5]
(2)	[F43-OS1.1,OH5]
(3)	[F01-OS1.1]
(4)	[F81-OS1.1,OH5]
(5)	[F43-OS1.1,OH5]
(6)	[F01,F43-OS1.1] [F43-OH5]
SECTION 4.6	FUEL-DISPENSING STATIONS
Subsection 4.6.1.	Scope
4.6.1.1. (1)	Note ¹
(2)	[F01,F02,F03,F81-OS1.1]
(3)	Note ¹
Subsection 4.6.2.	Storage and Handling
4.6.2.1. (1)	Note ¹
(2)	[F02-OS1.2,OP1.2]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(3)	[F02-OS1.2,OP1.2]
(4)(a)	[F81-OS1.1,OH5]
(b)	[F34-OS1.1,OH5]
(c)	Note ¹
(d)	Note ¹
(e)	[F43,F81-OS1.1,OP1.1,OH5]
(5)	Note ¹
4.6.2.2.	[F81,F12-OS1.1] [F12-OS1.2] Apply to the requirement for products stored or sold at fuel-dispensing stations to be in closed containers distinctly marked with the generic name of the liquid they contain. Note ¹ Applies to all other text.
4.6.2.3. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
(4)	[F20,F22-OH5,OS1.1,OP1.1] Applies to the supported portion of the piping. [F21,F81,F20-OP1.1,OH5,OS1.1] Applies to the backfilled portion of the piping.
(5)	Note ¹
4.6.2.4.	Note ¹
4.6.2.5.	[F81,F22-OS1.1,OH5,OP1.1]
4.6.2.6.	Note ¹
Subsection 4.6.3.	Dispensing Systems
4.6.3.1.	[F01,F43-OS1.1] [F43-OH5]
4.6.3.2.	[F01,F20,F44,F80,F81-OS1.1,OP1.1] [F20,F44,F80,F81-OS3.4,OH5]
4.6.3.3. (1)(a)	[F01-OP3.1]
(b)	[F01,F81-OS1.1]
(c)	[F01,F81-OS1.1]
(d)	[F01-OS1.1]
(e)	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(f)	[F43,F01-OS1.1] [F01-OS1.1]
(2)	Note ¹
(3)	[F01,F43-OS1.1]
4.6.3.4. (1)	[F81-OS1.1,OH5]
4.6.3.5.	[F81-OS1.1,OH5]
Subsection 4.6.4.	Shut-off Devices
4.6.4.1. (1)	[F44-OS3.4] [F02-OS1.1,OP1.1] Applies to the requirement to provide shut-off devices to all dispensers and pumps. [F06-OS1.1,OP1.1] Applies to the requirement to locate the shut-off devices within the specified minimum and maximum distances away from the dispensers and pumps.
(2)	[F12-OS1.1,OS1.2,OP1.1,OP1.2,OH5]
(3)	[F04,F20-OP1.1,OS1.1] [F44-OS3.4,OH5] Applies to the requirement for shut-off valves.
4.6.4.2. (1)	[F12,F44-OS1.1,OS1.2,OP1.1,OP1.2,OH5]
(2)	[F12-OS1.1,OS1.2,OP1.1,OP1.2,OH5]
4.6.4.3.	[F12-OS1.1,OH5,OP1.1]
Subsection 4.6.5.	Delivery Hose and Nozzles
4.6.5.1. (1)	[F81,F20,F43 -OS1.1,OP1.1,OH5] [F01-OS1.1]
(2)	[F43-OS1.1,OH5,OP1.1]
(3)	[F43-OS1.1,OH5,OP1.1]
(4)	Note ¹
4.6.5.2. (1)(a)	Note ¹
(b)	[F81,F43,F20-OS1.1,OP1.1,OH5] [F01-OS1.1]
(2)(a)	[F43-OS1.1,OP1.1,OH5]
(b)	[F43-OS1.1,OP1.1,OH5]
(3)	[F43-OS1.1,OP1.1,OH5]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(4)	[F81-OS1.1,OP1.1,OH5]
(5)	[F43-OS1.1,OP1.1,OH5]
Subsection 4.6.6.	Remote Pumping Systems
4.6.6.1.	Note ¹
4.6.6.2. (1)	[F20,F81-OS1.1,OP1.1,OH5]
(2)	[F20,F22,F81-OS1.1,OP1.1,OH5]
4.6.6.3. (1)	[F04,F43,F81-OS1.1,OP1.1] [F43,F81-OH5]
(2)	[F82-OS1.1,OP1.1,OH5]
4.6.6.4. (1)(a)	[F01-OP3.1,OS1.1]
(b)	[F01-OP3.1,OS1.1]
(2)	Note ¹
4.6.6.5. (1)	[F12,F20,F22,F81-OS1.1,OP1.1,OH5]
(2)	[F44,F02-OS1.1,OP1.1] [F44-OH5]
(3)	[F22-OS1.1,OP1.1,OH5]
(4)	Note ¹
(5)	[F81,F43-OS1.1,OP1.1,OH5]
(6)	[F43,F01-OP1.1,OS1.1] [F43-OH5] Apply where dispensing is from a floating structure. Note ¹ Applies to all other text.
Subsection 4.6.7.	Spill Control
4.6.7.1. (1)(a)	Note ¹
(b)	[F44-OS1.1,OS1.2,OP1.1,OP1.2,OH5]
Subsection 4.6.8.	Supervision and Dispensing Procedures
4.6.8.1. (1)	[F43,F01,F44-OS1.1,OP1.1] [F43,F44-OH5]
(2)	[F43,F01,F34-OS1.1,OP1.1] [F43,F34-OH5]
(3)	[F43,F01-OS1.1,OP1.1] [F43-OH5]
(4)	[F81-OS1.1,OH5,OP1.1]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(5)	[F43,F44,F12,F01,F02-OS1.1,OP1.1] [F43,F44,F12-OH5]
4.6.8.2. (1)	[F81-OS1.1,OH5,OP1.1]
(2)	[F43,F44,F12,F01-OS1.1,OP1.1,OH5]
(3)	[F44-OS1.1,OS1.2,OP1.1,OP1.2,OH5]
(4)	[F43,F44,F01-OS1.1,OP1.1] [F43,F44-OH5]
4.6.8.3.	[F12,F01,F44-OS1.1,OP1.1] [F12,F44-OH5]
4.6.8.4. (1)	Note ¹
(2)	Note ¹
(3)	[F34-OS1.1,OP1.1,OH5]
(4)	[F81-OS1.1,OP1.1,OH5]
(5)	[F13-OS1.1,OS1.2,OP1.1,OP1.2,OH5]
(6)(a)	[F12-OS1.1,OS1.2,OP1.1,OP1.2,OH5] Applies to the requirement that the emergency instructions be conspicuously posted to advise the user, in the event of a spill or accident. Note ¹ Applies to all other text.
(b)	[F13-OS1.1,OS1.2,OP1.1,OP1.2,OH5]
4.6.8.5. (1)(a)	[F44-OP1.1,OP1.2,OS1.1,OS1.2,OH5]
(b)	[F44-OP1.1,OP1.2,OS1.1,OS1.2,OH5]
(c)	[F44-OP1.1,OP1.2,OS1.1,OS1.2,OH5] [F01-OS1.1] Applies to containers that are located in a vehicle.
(d)	[F01-OS1.1]
(e)	[F01-OS1.1,OP1.1]
(f)	[F44-OP1.1,OP1.2,OS1.1,OS1.2,OH5]
(g)	Note ¹
(2)(a)	[F44,F01-OS1.1]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(b)	[F43-OS1.1,OH5] Applies to containers not being filled beyond their safe filling level. [F44,F01-OS1.1] Applies to containers being filled only after having been removed from the watercraft or floatplane.
(3)	[F12-OS1.1,OS1.2]
4.6.8.6. (1)	[F01-OS1.1]
(2)	[F01-OS1.1]
(3)	[F01,F43,F44,F81-OS1.1]
(4)	Note ¹
4.6.8.7.	Note ¹
4.6.8.8. (1)	[F01-OS1.1] Applies to “At least one __sign__ shall be provided for each dispenser in a location visible to every driver approaching the dispenser.” [F80-OS1.1] Applies to “At least one weather-resistant sign ”.
(2)	[F01-OS1.1]
(3)	[F01-OS1.1]
(4)	[F01-OS1.1]
4.6.8.9.	Note ¹
Subsection 4.6.9.	Fire Prevention and Protection
4.6.9.1.	[F12,F02-OP1.2,OS1.2]
4.6.9.2.	Note ¹
SECTION 4.7	BULK PLANTS
Subsection 4.7.1.	Scope
4.7.1.1.	Note ¹
Subsection 4.7.2.	Storage
4.7.2.1. (1)	Note ¹
4.7.2.2.	Note ¹
4.7.2.3.	[F20,F82-OS1.1,OP1.1,OH5]
4.7.2.4. (1)	Note ¹
(2)	Note ¹
4.7.2.5.	Note ¹
4.7.2.6. (1)	[F34-OH5,OP3.1,OS3.4]
(2)	[F12-OP3.1]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(3)	Note ¹
Subsection 4.7.3.	Dispensing
4.7.3.1.	Note ¹
4.7.3.2. (1)	Note ¹
(2)(a)	[F43,F81-OS1.1,OP1.1,OH5]
(b)	Note ¹
4.7.3.3.	Note ¹
4.7.3.4.	Note ¹
Subsection 4.7.4.	Loading and Unloading Facilities
4.7.4.1. (1)	[F01-OS1.1,OP3.1] [F03-OS1.2,OP1.2,OP3.1]
(2)	Note ¹
(3)	Note ¹
4.7.4.2.	[F01-OS1.1]
4.7.4.3. (1)	[F43-OS1.1,OH5]
(2)	[F43,F82-OS1.1,OH5]
4.7.4.4. (1)	[F43-OS1.1,OH5]
(2)	[F43,F81-OS1.1,OH5]
4.7.4.5. (1)	[F01-OS1.1]
(2)	Note ¹
(3)	[F01-OS1.1]
(4)	[F01-OS1.1]
(5)	[F01-OS1.1]
4.7.4.6.	[F01-OS1.1]
Subsection 4.7.5.	Fire Protection
4.7.5.1.	[F02,F12-OS1.2,OP1.2]
Subsection 4.7.6.	Spill Control
4.7.6.1.	Note ¹
SECTION 4.8	PIERS AND WHARVES
Subsection 4.8.1.	Scope
4.8.1.1.	Note ¹
Subsection 4.8.2.	General
4.8.2.1. (1)	[F03-OS1.2,OP3.1]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	[F03-OS1.2,OP3.1]
4.8.2.2.	[F20,F04,F80-OS1.1,OP1.1,OH5]
Subsection 4.8.3.	Storage Tanks
4.8.3.1. (1)	[F04,F20-OS1.1,OH5] Applies to “Except as permitted in Sentences (2) and (3), storage tanks shall be installed on shore ___”. Note ¹ Applies to all other text.
(2)	Note ¹
(3)	Note ¹
Subsection 4.8.4.	Piping, Valves and Fittings
4.8.4.1.	Note ¹
4.8.4.2. (1)	[F20,F22-OS1.1,OP1.1,OH5]
(2)	[F02-OS1.2,OH5,OP1.2]
(3)	[F04-OS1.2,OH5,OP1.2]
4.8.4.3.	[F81-OS1.1,OP1.1,OH5]
4.8.4.4.	[F21-OS1.1,OP1.1,OH5]
4.8.4.5.	[F12,F44-OS1.1,OS1.2,OH5,OP1.1,OP1.2]
4.8.4.6. (1)	[F12-OS1.1,OS1.2,OH5,OP1.1,OP1.2] [F82-OS1.1,OP1.1,OH5]
(2)	[F12-OS1.1,OS1.2,OH5,OP1.1,OP1.2] [F82-OS1.1,OP1.1,OH5]
4.8.4.7.	[F12-OS1.1,OS1.2,OH5,OP1.1,OP1.2] [F81-OS1.1,OP1.1]
4.8.4.8. (1)	Note ¹
(2)	[F82-OS1.1,OP1.1,OH5]
Subsection 4.8.5.	Bonding and Grounding
4.8.5.1. (1)	Note ¹
(2)	[F01-OS1.1]
Subsection 4.8.6.	Fire Protection
4.8.6.1. (1)	[F02,F12-OS1.2,OP1.2] Applies to the requirement for portable extinguishers with a rated capacity. Note ¹ Applies to all other text

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	[F12-OS1.2,OP1.2] Applies to the placement and accessibility of portable extinguishers. [F34-OS1.2,OP1.2] Applies to the placement of portable extinguishers so they are not accessible to the public. Note ¹ Applies to all other text
(3)	[F02,F12-OS1.2,OP1.2]
(4)	Note ¹
4.8.6.2.	[F12,F13-OS1.2,OP1.2]
Subsection 4.8.7.	Bulk Transfer Stations
4.8.7.1. (1)	[F01,F81-OS1.1,OH5,OP1.1]
(2)	[F34-OS1.1,OP1.1,OH5]
4.8.7.2. (1)	Note ¹
(2)	[F43-OS1.1,OH5]
4.8.7.3. (1)	[F22,F43-OS1.1,OP1.1,OH5] Applies to “Except as provided in Sentence (2), hose connections on piping shall be of the bolted flange type ___”. [F44-OP1.1,OP1.2,OH5,OS1.1,OS1.2] Applies to the requirement for shut-off valves.
(2)	[F22,F43-OS1.1,OP1.1,OH5]
(3)	Note ¹
Subsection 4.8.8.	Cargo Hose
4.8.8.1. (1)	[F20,F22,F81-OS1.1,OP1.1,OH5]
4.8.8.2.	[F82-OS1.1,OP1.1,OH5]
4.8.8.3.	[F20,F22-OS1.1,OP1.1,OH5]
Subsection 4.8.9.	Cargo Pumps
4.8.9.1.	Note ¹
4.8.9.2.	[F20,F81-OS1.1,OP1.1,OH5]
4.8.9.3. (1)(a)	[F02-OS1.2,OP1.2]
(b)	[F01,F03-OS1.1,OS1.2,OP3.1]
(2)	[F02,F44,F03-OS1.1,OS1.2,OP3.1] [F01-OS1.1,OS1.2]

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 4.8.10.	Pump Houses
4.8.10.1.	[F02-OS1.2,OP3.1] Applies to “Pump houses shall be of noncombustible construction”. [F44-OP3.1,OH5,OS1.1] Applies to all other text.
4.8.10.2.	Note ¹
Subsection 4.8.11.	Transfer Operations
4.8.11.1. (1)	[F44,F12,F43,F01-OS1.1,OS1.2] [F44,F43,F12-OH5] [F44,F12-OP1.1,OP1.2]
(2)	[F12,F44,F43-OS1.1,OP1.1,OH5]
(3)	Note ¹
4.8.11.2. (1)	[F01-OS1.1]
(2)	[F01-OS1.1]
4.8.11.3. (1)	[F21-OS1.1,OP1.1,OH5]
(2)	[F43-OS1.1,OP1.1,OH5]
(3)	[F43-OS1.1,OP1.1,OH5]
(4)	[F44-OS1.1,OP1.1,OH5]
4.8.11.4. (1)	[F43-OS1.1,OH5]
(2)	[F43-OS1.1,OH5]
SECTION 4.9	PROCESS PLANTS
Subsection 4.9.1.	Scope
4.9.1.1. (1)	Note ¹
(2)	Note ¹
Subsection 4.9.2.	Outdoor Processing Equipment
4.9.2.1. (1)	Note ¹
(2)	[F03-OS1.2,OP3.1]
(3)	[F03-OS1.2,OP3.1]
(4)	[F03-OS1.2,OP3.1]
Subsection 4.9.3.	Processing Buildings
4.9.3.1.	[F02-OS1.3,OP1.3,OP3.1]
4.9.3.2.	Note ¹
4.9.3.3. (1)	[F01-OS1.1]
(2)	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
4.9.3.4.	[F01-OS1.1]
Subsection 4.9.4.	Fire Prevention and Protection
4.9.4.1. (1)(a)	[F01,F43-OS1.1] [F43-OH5]
(b)	[F44-OS1.1,OP1.1,OH5]
(2)	Note ¹
4.9.4.2. (1)(a)	[F02,F20-OS1.2,OS1.3,OP1.2,OP1.3]
(b)	[F02,F20-OS1.2,OS1.3,OP1.2,OP1.3]
(c)	[F01-OS1.1,OP1.1]
4.9.4.3. (1)	[F01,F20-OS1.1,OP1.1,OP3.1] [F02,F03,F43-OS1.2,OP1.2,OP3.1] [F04-OS1.3,OP1.3,OP3.1] [F44-OS1.2,OH5,OP1.2,OP3.1] [F81-OS1.1,OS1.2,OP1.1,OP1.2,OP3.1]
(2)	[F01,F20-OS1.1,OP1.1,OP3.1] [F02,F03,F43-OS1.2,OP1.2,OP3.1] [F04-OS1.3,OP1.3,OP3.1] [F44-OS1.2,OH5,OP1.2,OP3.1] [F81-OS1.1,OS1.2,OP1.1,OP1.2,OP3.1]
(3)	[F81-OS1.1,OS1.2,OS1.3,OH5,OP1.1,OP1.2,OP1.3,OP3.1]
(4)	Note ¹
(5)	Note ¹
4.9.4.4.	Note ¹
SECTION 4.10	DISTILLERIES
Subsection 4.10.1.	Scope
4.10.1.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
Subsection 4.10.2.	General
4.10.2.1. (1)	Note ¹
(2)	Note ¹

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 4.10.3.	Storage Tanks and Containers
4.10.3.1.	[F20,F43,F80-OS1.1,OH5] [F01-OS1.1]
4.10.3.2. (1)	Note ¹
(2)	[F04-OS1.2,OP1.2]
(3)	[F02-OS1.2,OP1.2]
4.10.3.3.	[F81,F20,F04-OS1.1,OH5] [F01-OS1.1]
Subsection 4.10.4.	Storage
4.10.4.1.	[F02-OS1.2,OP1.2]
4.10.4.2.	Note ¹
Subsection 4.10.5.	Piping and Pumping Systems
4.10.5.1.	[F20,F80-OS1.1,OP1.1,OH5]
Subsection 4.10.6.	Ventilation
4.10.6.1.	[F01-OS1.1]
4.10.6.2.	Note ¹
Subsection 4.10.7.	Spill Control
4.10.7.1.	[F44-OS1.1,OS1.2,OH5]
Subsection 4.10.8.	Fire Protection
4.10.8.1. (1)	[F02,F12-OS1.2,OP1.2]
(2)	[F02,F12-OS1.2,OP1.2]
(3)	[F02,F12-OS1.2,OP1.2]
(4)	Note ¹
4.10.8.2. (1)	Note ¹
(2)	Note ¹
SECTION 4.11	TANK VEHICLES
Subsection 4.11.1.	Scope
4.11.1.1.	Note ¹
Subsection 4.11.2.	General
4.11.2.1. (1)	[F02,F12-OS1.1,OP1.2]
(2)	[F12-OS1.2,OP1.2]
4.11.2.2.	Note ¹
4.11.2.3. (1)	Note ¹
4.11.2.4. (1)	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 4
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 4 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	Note ¹
Subsection 4.11.3.	Loading, Unloading and Dispensing from Tank Vehicles
4.11.3.1.	Note ¹
4.11.3.2.	[F01,F20,F81-OS1.1]
4.11.3.3.	[F01-OS1.1]
4.11.3.4.	[F44-OS1.1,OS1.2,OP1.1,OP1.2,OH5]
4.11.3.5.	[F01-OS1.1]
4.11.3.6.	[F01-OS1.1]
4.11.3.7. (1)	[F43-OS1.1,OH5]
(2)	Note ¹
(3)	Note ¹
4.11.3.8. (1)	[F01,F43-OS1.1,OP1.1] [F43-OH5]
(2)(a)	[F01-OS1.1] [F03-OS1.2] [F01,F03-OP3.1]
(b)	[F02,F12-OS1.2]
(c)	Note ¹
(d)	[F43,F44-OS1.1]
(e)	[F44-OS1.1,OH5]

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 5.1	GENERAL
Subsection 5.1.1.	Application, Explosives, Fireworks and Pyrotechnics
5.1.1.1.	Note ¹
5.1.1.2. (1)	Note ¹
(2)	[F12-OS1.2,OP1.2]
(3)	Note ¹
5.1.1.3.	[F01,F02-OS1.1]
Subsection 5.1.2.	Means of Egress
5.1.2.1.	[F10-OS1.5]
Subsection 5.1.3.	Electrical Installations
5.1.3.1.	[F01-OS1.1]
Subsection 5.1.4.	Ventilation
5.1.4.1.	[F01-OS1.1, OP1.1]
5.1.4.2. (1)	[F01-OS1.1,OP1.1]
5.1.4.2. (2)	Note ¹
SECTION 5.2	RESERVED
SECTION 5.3	DUST PRODUCING PROCESSES
Subsection 5.3.1.	General
5.3.1.1.	Note ¹
5.3.1.2. (1)	[F01-OS1.1]
(2)	Note ¹
(3)	Note ¹
5.3.1.3. (1)	Note ¹
(2)(a)	Note ¹
(b)	[F02-OS1.2,OP1.2]
(c)	[F01-OS1.1,OP1.1]
5.3.1.4. (1)	[F02-OP1.2,OS1.2]
(2)	[F02,F03-OP1.2,OS1.2] [F01-OS1.1,OP1.1] [F04-OS1.3,OP1.3].
(3)(a)	[F01-OS1.1,OP1.1]
(b)	[F01-OS1.1,OP1.1] [F03-OS1.2,OP1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
5.3.1.5. (1)	[F01-OS1.1]
(2)	[F01-OS1.1]
5.3.1.6. (1)	[F02-OS1.3] [F02-OP1.3]
(2)	[F02-OP1.3] [F02-OS1.3]
5.3.1.7. (1)	[F01-OS1.1]
(2)	[F01-OS1.1]
5.3.1.8.	[F01-OS1.1]
5.3.1.9.	[F01-OS1.1]
5.3.1.10. (1)	[F01-OS1.1]
(2)	Note ¹
(3)	Note ¹
5.3.1.11.	[F02-OS1.2,OP1.2]
5.3.1.12. (1)(a)	[F01,F20-OS1.1,OP1.1]
(b)	[F01,F20-OS1.1,OP1.1]
(c)	[F20-OS1.1,OP1.1]
(d)	[F20-OS1.1,OP1.1]
Subsection 5.3.2.	Woodworking Operations
5.3.2.1. (1)	[F01-OS1.1,OP1.1]
(2)	Note ¹
(3)	Note ¹
5.3.2.2.	[F01-OS1.1] Applies to “Loose shavings and sawdust shall be collected at frequent intervals ____”. Note ¹ Applies to all other text.
5.3.2.3.	[F02,F12-OS1.2,OP1.2]
Subsection 5.3.3.	Grain Handling and Storage Facilities
5.3.3.1. (1)	[F01-OS1.1]
(2)	Note ¹
5.3.3.2. (1)	[F81,F11,F01-OS1.1]
(2)	[F01-OS1.1]
(3)	[F01,F82-OS1.1]
(4)	Note ¹

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
5.3.3.3.	[F01-OS1.1]
5.3.3.4.	[F01-OS1.1]
SECTION 5.4	CELLULOSE NITRATE PLASTICS
Subsection 5.4.1.	Displays
5.4.1.1.	[F02,F03-OS1.2,OP1.2]
5.4.1.2.	[F01-OS1.1,OP1.1]
Subsection 5.4.2.	Manufacture
5.4.2.1.	[F01-OS1.1,OP1.1] [F02,F12-OS1.2,OP1.2]
5.4.2.2.	[F02-OS1.2,OP1.2]
5.4.2.3.	[F01-OS1.1,OP1.1] [F02,F03-OS1.2,OP1.2]
5.4.2.4.	[F01-OS1.1,OP1.1] [F02,F03-OS1.2,OP1.2]
5.4.2.5.	[F81-OS1.1,OP1.1]
5.4.2.6.	[F02-OS1.2,OP1.2]
5.4.2.7.	[F02-OS1.2,OP1.2]
5.4.2.8.	[F81-OS1.1,OP1.1]
Subsection 5.4.3.	Storage of Finished Products
5.4.3.1.	[F01-OS1.1,OP1.1]
5.4.3.2. (1)	[F01-OS1.1,OP1.1]
5.4.3.3. (1)	[F01-OS1.1,OP1.1] [F03-OS1.2,OP1.2]
(2)	[F02-OS1.2,OP1.2]
5.4.3.4. (1)	[F01-OS1.1,OP1.1] [F02,F03-OS1.2,OP1.2] [F04-OS1.3,OP1.3]
5.4.3.5. (1)	[F01-OS1.1,OP1.1] [F02,F03-OS1.2,OP1.2] [F04-OS1.3,OP1.3]
Subsection 5.4.4.	Cellulose Nitrate Motion Picture Film
5.4.4.1.	Note ¹
5.4.4.2.	[F02,F03-OS1.2,OP1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
5.4.4.3.	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
Subsection 5.4.5.	Fire Protection
5.4.5.1.	[F02-OS1.2,OP1.2]
SECTION 5.5	LABORATORIES
Subsection 5.5.1.	Application
5.5.1.1. (1)	Note ¹
(2)	Note ¹
Subsection 5.5.2.	Construction
5.5.2.1.	Note ¹
5.5.2.2. (1)	[F03-OS1.2] [F03-OP1.2]
(2)	Note ¹
Subsection 5.5.3.	Fire Prevention and Protection
5.5.3.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
(6)	[F34-OS1.1] [F34-OS3.4] [F34-OH5]
5.5.3.2. (1)	[F02-OS1.2] [F02-OP1.2]
(2)	Note ¹
5.5.3.3. (1)	Note ¹
(2)	Note ¹
5.5.3.4. (1)	Note ¹
(2)(a)	Note ¹
(b)	[F02-OP1.2,OS1.2] [F82-OP1.1,OS1.1]
5.5.3.5. (1)	Note ¹
(2)(a)	[F11-OS1.1] [F11-OP1.1]

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(b)	[F01-OS1.1]
(3)	[F01,F02-OS1.1,OS1.2]
5.5.3.6. (1)	[F82-OS1.1,OS3.4,OH5,OP1.1]
(2)	[F02-OS1.2] [F82-OS1.1] [F02-OP1.2]
Subsection 5.5.4.	Ventilation
5.5.4.1. (1)	[F01-OS1.1,OP1.1]
(2)	[F01,F81-OS1.1,OP1.1]
(3)	[F81,F82-OS1.1]
5.5.4.2. (1)	Note ¹
(2)	[F02-OS1.2,OP1.2] Applies to “A power-ventilated enclosure required in Sentence (1) shall not be used for the storage of dangerous goods”. Note ¹ Applies to all other text.
5.5.4.3. (1)	[F01-OS1.1,OP1.1]
(2)	[F02-OS1.2] [F12-OP1.2] [F44-OS3.4] [F43-OH5]
(3)(a)	[F02-OS1.2] [F82-OS1.1] [F02-OP1.2] [F82-OP1.1]
(b)	Note ¹
5.5.4.4. (1)(a)	[F01,F80-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
(b)	[F82-OS1.1,OP1.1]
(c)	[F81-OS1.1,OP1.1]
(d)	Note ¹
(2)	Note ¹
(3)	Note ¹
Subsection 5.5.5.	Dangerous Goods
5.5.5.1. (1)	[F02-OP1.2] [F02-OS1.2]
(2)	Note ¹
(3)	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
5.5.5.2. (1)	Note ¹
(2)	[F02,F04-OS1.2] [F43,F01-OS1.1] [F02,F04-OP1.2] [F01,F43-OP1.1]
(3)	[F01,F43-OS1.1] [F01,F43-OP1.1]
(4)	[F43,F01-OS1.1]
5.5.5.3. (1)	[F02-OS1.2] [F02-OP1.2]
(2)	[F81-OS1.1] [F81-OS3.4]
(3)(a)	[F81-OS1.1] [F12-OS1.1,OS1.2] [F12-OP1.2] [F81,F12-OS3.4]
(b)	[F12-OS3.4] [F12-OP1.2] [F12-OS1.1,OS1.2]
(4)	[F43-OS1.1] [F43-OS3.4]
(5)(a)	[F43-OS3.4] [F43-OH5]
(b)	[F43-OS3.4] [F43-OH5] [F11,F12,F13-OS3.4] [F11,F12,F13-OH5]
(c)	[F43-OS3.4] [F43-OH5]
(6)	[F01,F02-OS1.1,OS1.2] [F01,F02-OP1.1,OP1.2]
(7)	[F44-OS3.4] [F44-OH5] [F01-OS1.1] [F01-OP1.1]
5.5.5.4. (1)	Note ¹
(2)	[F01,F43-OS1.1]

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
5.5.5.5. (1)(a)	Note ¹
(b)	[F81-OS1.1]
(2)	[F01-OS1.1] [F02-OS1.2] [F01-OP1.1] [F02-OP1.2]
5.5.5.6. (1)(a)	Note ¹
(b)	[F81-OS1.1]
(2)	[F01-OS1.1] [F02-OS1.2] [F01-OP1.1] [F02-OP1.2]
(3)	[F01-OS1.1]
5.5.5.7. (1)(a)	[F81-OS1.1]
(b)	Note ¹
Subsection 5.5.6.	Existing Laboratories
5.5.6.1.	Note ¹
5.5.6.2.	Note ¹
SECTION 5.6	COMPRESSED GAS CYLINDERS
Subsection 5.6.1.	General
5.6.1.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
(6)	[F03-OS1.2,OP1.2]
(7)	Note ¹
(8)	Note ¹
5.6.1.2. (1)	[F01,F43-OS1.1,OP1.1]
(2)	[F01,F43-OS1.1,OP1.1]
5.6.1.3.	[F01,F43-OS1.1,OP1.1]
5.6.1.4.	[F01,F43,F81-OS1.1,OP1.1]
5.6.1.5.	[F20-OS1.1,OP1.1]
5.6.1.6.	[F01,F80-OS1.1,OP1.1]
5.6.1.7.	[F01-OS1.1,OP1.1]
Subsection 5.6.2.	Storage
5.6.2.1. (1)	[F01,F34,F80,F81-OS1.1] [F02-OS1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	[F02-OS1.2]
5.6.2.2. (1)	[F12-OS1.2] [F34-OS1.1]
(2)	[F01-OS1.1] [F03-OS1.2]
5.6.2.3. (1)	[F44-OS1.1,OP1.1]
(2)	Note ¹
5.6.2.4. (1)(a)	[F03-OS1.2,OP1.2]
(b)	[F03,F12-OS1.2,OP1.2] [F44-OS1.1,OP1.1]
(c)	[F03,F12-OS1.2,OP1.2]
(d)	[F03-OS1.2,OP1.2] [F44-OS1.1,OP1.1]
(e)	[F02-OS1.2,OP1.2] [F04-OS1.3,OP1.3]
(f)	[F01-OS1.1,OP1.1]
(g)	[F01-OS1.1,OP1.1]
(h)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
(2)	Note ¹
(3)	Note ¹
(4)	[F01-OS1.1,OP1.1]
(5)	[F01,F81-OS1.1,OP1.1] [F02,F03-OS1.2,OP1.2]
5.6.2.5.	RESERVED
5.6.2.6.	Note ¹
5.6.2.7. (1)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
(2)	Note ¹
(3)	Note ¹
5.6.2.8.	[F12-OS1.2,OP1.2]
SECTION 5.7	RESERVED
SECTION 5.8	RESERVED
SECTION 5.9	RESERVED

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 5.10	RESERVED
SECTION 5.11	HOT SURFACE APPLICATIONS
Subsection 5.11.1.	Application
5.11.1.1.	Note ¹
Subsection 5.11.2.	General
5.11.2.1. (1)	[F01-OS1.1,OP1.1]
(2)	[F01-OS1.1,OP1.1]
5.11.2.2. (1)	[F01-OS1.1,OP1.1]
5.11.2.3. (1)	[F01-OS1.1,OP1.1]
(2)	Note ¹
5.11.2.4. (1)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
5.11.2.5. (1)	[F12-OS1.1,OS1.2,OP1.1,OP1.2]
(2)	[F12-OS1.1,OS1.2,OP1.1,OP1.2]
(3)	[F12-OS1.2,OS1.5,OP1.2]
(4)	[F12-OS1.2,OP1.2] [F30-OS3.1]
(5)	[F12-OS1.1,OS1.2,OP1.1,OP1.2]
5.11.2.6. (1)	[F12-OS1.2,OP1.2]
(2)	[F12-OS1.2,OP1.2]
SECTION 5.12	SPRAY APPLICATIONS USING FLAMMABLE AND COMBUSTIBLE MATERIALS
Subsection 5.12.1.	Application and Separation
5.12.1.1. (1)	Note ¹
(2)	Note ¹
5.12.1.2.	[F03-OS1.2,OP1.2]
Subsection 5.12.2.	Construction
5.12.2.1. (1)	[F02,F03-OS1.2,OP1.2]
(2)	[F02,F82-OS1.2,OP1.2]
(3)	[F02-OS1.2,OP1.2]
5.12.2.2. (1)	[F02-OS1.2,OP1.2] [F82-OS1.1,OS1.2,OP1.1,OP1.2]
(2)	Note ¹
5.12.2.3. (1)	[F02-OS1.2,OP1.2]
(2)	[F02-OS1.2,OP1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(3)	[F82-OS1.2,OP1.2]
(4)	[F01-OS1.1,OP1.1]
(5)	[F82-OS1.1,OP1.1]
(6)	[F82-OS1.1,OS1.2,OP1.1,OP1.2]
(7)	[F01-OS1.1,OP1.1]
5.12.2.4.	[F01-OS1.1,OP1.1]
Subsection 5.12.3.	Ventilation
5.12.3.1. (1)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
5.12.3.2.	[F02-OS1.2,OP1.2] [F44-OS1.1,OP1.1]
5.12.3.3.	[F02-OS1.2,OP1.2] [F44-OS1.1,OP1.1]
5.12.3.4.	[F03-OS1.2,OP1.2]
5.12.3.5.	[F44-OS1.1,OP1.1]
5.12.3.6. (1)	[F81-OS1.1,OP1.1]
(2)	[F81,F82-OS1.1,OP1.1]
Subsection 5.12.4.	Exhaust Ducts
5.12.4.1.	[F02,F03,F04-OS1.2,OP1.2]
5.12.4.2.	[F03-OS1.2,OP1.2]
5.12.4.3. (1)	[F03-OS1.2,OP1.2]
(2)	[F03-OS1.2,OP1.2]
5.12.4.4.	[F02-OS1.2,OP1.2] [F82-OS1.1,OP1.1]
5.12.4.5. (1)	[F03-OS1.2,OP1.2,OP3.1]
Subsection 5.12.5.	Electrical Equipment
5.12.5.1.	[F01-OS1.1,OP1.1]
5.12.5.2.	[F01-OS1.1,OP1.1]
5.12.5.3.	[F01-OS1.1,OP1.1]

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 5.12.6.	Flammable Liquids and Combustible Liquids
5.12.6.1.	Note ¹ Applies to “ Flammable liquids and combustible liquids for use in spraying areas shall be stored and handled in conformance with Part 4”. [F02-OS1.2,OP1.2] Applies to “at no time shall the amount of flammable liquids and combustible liquids in the spraying areas exceed one day’s supply”.
5.12.6.2.	[F01,F43-OS1.1,OP1.1]
5.12.6.3.	[F01,F43-OS1.1,OP1.1]
5.12.6.4.	[F81-OS1.1,OP1.1]
Subsection 5.12.7.	Control of Fire Hazards
5.12.7.1. (1)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2] Apply to “The spraying equipment for spray booths and spray rooms shall be interlocked to shut down in the event of (a) failure of the ventilation system”. [F01,F81-OS1.1,OP1.1] [F02-OS1.2,OP1.2] Apply to “The spraying equipment for spray booths and spray rooms shall be interlocked to shut down in the event of __ (b) failure of the circulating water pump of a water-wash filtration system, or (c) failure of the filter roll-down mechanism of an overspray collection system. ”
5.12.7.2. (1)	[F02-OS1.2,OP1.2]
(2)	[F02-OS1.2,OP1.2]
(3)	Note ¹
5.12.7.3.	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
5.12.7.4.	RESERVED
5.12.7.5.	[F01-OS1.1,OP1.1]
5.12.7.6.	[F01-OS1.1,OP1.1]
Subsection 5.12.8.	Fire Protection Equipment
5.12.8.1.	Note ¹
5.12.8.2. (1)	[F02-OS1.2,OP1.2]
(2)	[F02-OS1.2,OP1.2]
(3)	Note ¹
5.12.8.3. (1)	[F81-OS1.2,OP1.2]
(2)	[F82-OS1.2,OP1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

Fire Code Supplement FCS-1

Office of the Fire Marshal

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 5.12.9.	Drying Operations
5.12.9.1.	[F01-OS1.1,OP1.1]
5.12.9.2.	[F01-OS1.1,OP1.1]
5.12.9.3. (1)	Note ¹
5.12.9.4. (1)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
Subsection 5.12.10.	Electrostatic Spraying
5.12.10.1.	Note ¹
5.12.10.2. (1)	[F01-OS1.1,OP1.1]
(2)	Note ¹
5.12.10.3. (1)	[F01,F81-OS1.1,OP1.1] [F11-OS1.1,OS1.5,OP1.1]
5.12.10.4.	[F01,F82-OS1.1,OP1.1]
5.12.10.5.	[F01,F81-OS1.1,OP1.1]
5.12.10.6.	[F02-OS1.2,OP1.2]
5.12.10.7.	[F01,F81-OS1.1,OP1.1]
5.12.10.8.	[F01-OS1.1,OP1.1]
5.12.10.9.	[F01-OS1.1,OP1.1]
5.12.10.10.	[F01-OS1.1,OP1.1]
5.12.10.11.	[F01-OS1.1,OP1.1]
5.12.10.12.	[F01-OS1.1,OP1.1]
5.12.10.13.	[F01,F43-OS1.1,OP1.1]
5.12.10.14.	[F01-OS1.1,OP1.1]
5.12.10.15.	[F01,F81-OS1.1,OP1.1]
5.12.10.16.	[F01,F82-OS1.1,OP1.1]
5.12.10.17.(1)	[F81-OS1.1,OP1.1]
5.12.10.18.	[F02-OS1.2,OP1.2]
Subsection 5.12.11.	Dry Powder-Coating Using Spray Guns
5.12.11.1. (1)	Note ¹
(2)	[F01-OS1.1,OP1.1] [F02,F03-OS1.2,OP1.2]
5.12.11.2.	[F01-OS1.1,OP1.1]
5.12.11.3.	[F01-OS1.1,OP1.1]
5.12.11.4. (1)	[F01-OS1.1,OP1.1]

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	[F81-OS1.1,OP1.1]
5.12.11.5.	[F01-OS1.1,OP1.1]
5.12.11.6.	[F01-OS1.1,OP1.1] Applies to “Waste air-suspended powders shall be removed by exhaust ducts to a powder recovery system”. Note ¹ Applies to “shall not be released to the outside atmosphere”.
5.12.11.7.	[F01-OS1.1,OP1.1]
5.12.11.8.	[F01-OS1.1,OP1.1]
5.12.11.9.	[F01,F82-OS1.1,OP1.1]
5.12.11.10.(1)	Note ¹
(2)	[F81-OS1.1,OP1.1]
SECTION 5.13	DIP TANKS
Subsection 5.13.1.	Location
5.13.1.1. (1)	[F02,F03-OS1.2,OP1.2]
5.13.1.2.	Note ¹
Subsection 5.13.2.	Construction
5.13.2.1.	[F44-OS1.1,OS1.2,OH5,OP1.1,OP1.2]
5.13.2.2. (1)	[F04-OS1.2,OP1.2]
(2)	[F02-OS1.2,OP1.2]
5.13.2.3.	[F43-OS1.1,OH5,OP1.1]
5.13.2.4.	[F04-OS1.2,OP1.2]
5.13.2.5.	[F03,F44-OS1.2,OP1.2]
5.13.2.6.	[F03,F44-OS1.2,OP1.2]
Subsection 5.13.3.	Overflow and Drain Pipes
5.13.3.1.	[F43-OS1.1,OP1.1]
5.13.3.2.	[F03-OS1.2,OP1.2] [F43-OS1.1,OP1.1]
5.13.3.3.	[F03-OS1.2,OP1.2] [F43-OS1.1,OP1.1]
5.13.3.4.	[F03-OS1.2,OP1.2] [F43-OS1.1,OP1.1]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
5.13.3.5.	[F81-OS1.1,OP1.1]
5.13.3.6.	[F82-OS1.1,OP1.1] Applies to “Piping connections for __ overflow lines shall be designed so as to allow for easy access to their interiors for cleaning purposes”. [F82-OS1.2,OP1.2] Applies to “Piping connections for drains __ shall be designed so as to allow for easy access to their interiors for cleaning purposes”.
5.13.3.7.	[F02,F43-OS1.2,OP1.2]
5.13.3.8.	[F02,F03-OS1.2,OP1.2]
5.13.3.9.	[F02-OS1.2,OP1.2]
5.13.3.10.	[F06,F12-OS1.2,OP1.2]
5.13.3.11.	[F02-OS1.2,OP1.2]
5.13.3.12.	[F81-OS1.2,OP1.2]
Subsection 5.13.4.	Salvage Tanks
5.13.4.1.	[F81-OS1.2,OP1.2]
5.13.4.2.	[F43-OS1.2,OP1.2]
5.13.4.3.	[F03-OS1.2,OP1.2]
5.13.4.4.	[F01,F20,F22,F43,F81-OS1.1,OP1.1]
Subsection 5.13.5.	Control of Fire Hazards
5.13.5.1.	[F01-OS1.1,OP1.1]
5.13.5.2.	[F01-OS1.1,OP1.1] [F11-OS1.1,OS1.5,OP1.1]
5.13.5.3.	[F01-OS1.1,OP1.1]
5.13.5.4.	[F02,F03-OS1.2,OP1.2]
5.13.5.5.	[F01-OS1.1,OP1.1]
5.13.5.6.	[F01-OS1.1,OP1.1]
5.13.5.7. (1)	Note ¹
(2)	[F02-OS1.2,OP1.2]
5.13.5.8.	Note ¹
5.13.5.9.	[F81-OS1.1,OP1.1]
Subsection 5.13.6.	Fire Protection
5.13.6.1.	[F02-OS1.2,OP1.2] [F04-OS1.3,OP1.3]

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
5.13.6.2. (1)	[F02,F03-OS1.2,OP1.2]
5.13.6.3.	Note ¹
5.13.6.4.	Note ¹
SECTION 5.14	SPECIAL PROCESSES INVOLVING FLAMMABLE AND COMBUSTIBLE LIQUIDS
Subsection 5.14.1.	Quench Tanks
5.14.1.1. (1)	[F01-OS1.1,OP1.1]
(2)	[F01-OS1.1,OP1.1]
5.14.1.2.	[F01-OS1.1]
5.14.1.3.	Note ¹
5.14.1.4. (1)	[F01,F11-OS1.1,OP1.1] [F81-OS1.2,OP1.2]
(2)	[F01,F81-OS1.1,OP1.1]
5.14.1.5.	[F01-OS1.1,OP1.1]
5.14.1.6.	Note ¹
5.14.1.7.	[F01-OS1.1,OP1.1]
Subsection 5.14.2.	Flow-Coating Operations
5.14.2.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
5.14.2.2. (1)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
Subsection 5.14.3.	Roll-Coating Processes
5.14.3.1. (1)	Note ¹
(2)	Note ¹
5.14.3.2. (1)	[F01-OS1.1,OP1.1]
(2)	[F01-OS1.1,OP1.1]
5.14.3.3.	[F02,F03-OS1.2,OP1.2]
Subsection 5.14.4.	Electrostatic Detearing Processes
5.14.4.1. (1)	Note ¹
(2)	Note ¹
5.14.4.2. (1)	[F01-OS1.1,OP1.1]
(2)	Note ¹
5.14.4.3. (1)	[F01,F81-OS1.1,OP1.1] [F11-OS1.1,OS1.5,OP1.1]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
5.14.4.4.	[F01,F82-OS1.1,OP1.1]
5.14.4.5. (1)	[F01-OS1.1,OP1.1]
(2)	[F81-OS1.1,OP1.1]
5.14.4.6.	[F02-OS1.2,OP1.2]
5.14.4.7.	[F01,F81-OS1.1,OP1.1]
5.14.4.8.	[F01-OS1.1,OP1.1]
5.14.4.9.	[F01-OS1.1,OP1.1]
Subsection 5.14.5.	Automobile Undercoating
5.14.5.1.	Note ¹
5.14.5.2. (1)	[F01-OS1.1,OP1.1]
(2)	[F01-OS1.1,OP1.1]
5.14.5.3. (1)	[F01-OS1.1,OP1.1]
(2)	[F81-OS1.1,OP1.1]
5.14.5.4.	Note ¹
5.14.5.5.	Note ¹
5.14.5.6.	[F02,F12-OS1.2,OP1.2]
5.14.5.7.	[F01,F82-OS1.1,OP1.1] [F02,F03-OS1.2,OP1.2]
Subsection 5.14.6.	Dry Powder-Coating Using Fluidized Beds
5.14.6.1. (1)	Note ¹
(2)	[F01-OS1.1,OP1.1] [F02,F03-OS1.2,OP1.2]
(3)	Note ¹
5.14.6.2.	[F01-OS1.1,OP1.1]
5.14.6.3. (1)	[F01-OS1.1,OP1.1]
(2)	[F01-OS1.1,OP1.1]
5.14.6.4. (1)	[F01-OS1.1,OP1.1]
(2)	[F01-OS1.1,OP1.1]
(3)	[F81-OS1.1,OP1.1]
5.14.6.5.	[F01-OS1.1,OP1.1]
5.14.6.6.	[F01-OS1.1,OP1.1]

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
5.14.6.7.	[F01-OS1.1,OP1.1] Applies to “All waste air-suspended powders shall be removed by exhaust ducts to a powder recovery system”. Note ¹ Applies to “shall not be released to the outside atmosphere”.
5.14.6.8.	[F01-OS1.1,OP1.1]
5.14.6.9.	[F01-OS1.1,OP1.1]
5.14.6.10.	[F01,F82-OS1.1,OP1.1]
5.14.6.11. (1)	Note ¹
(2)	[F81-OS1.1,OP1.1]
Subsection 5.14.7.	Organic Peroxides and Dual Component Coatings
5.14.7.1.	[F02,F03-OS1.2,OP1.2]
5.14.7.2.	[F01-OS1.1,OP1.1]
5.14.7.3.	[F01-OS1.1,OP1.1]
5.14.7.4.	[F01-OS1.1,OP1.1]
5.14.7.5.	[F01-OS1.1,OP1.1]
5.14.7.6.	[F81-OS1.1,OP1.1]
Subsection 5.14.8.	Floor Finishing
5.14.8.1.	Note ¹
5.14.8.2.	Note ¹
5.14.8.3.	Note ¹
5.14.8.4. (1)	[F01-OS1.1,OP1.1]
(2)	[F01-OS1.1,OP1.1]
5.14.8.5. (1)	[F01-OS1.1,OP1.1] Applies to “During the application of flammable liquids and for at least 1 h after such application (a)”. Note ¹ Applies to “During the application of flammable liquids and for at least 1 h after such application (b) and (c)”. [F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
5.14.8.6.	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
Subsection 5.14.9.	Bowling Alleys
5.14.9.1.	Note ¹
5.14.9.2.	[F01-OS1.1,OP1.1] [F12-OS1.2,OP1.2]
5.14.9.3.	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
5.14.9.4. (1)	[F01-OS1.1,OP1.1] [F03-OS1.2,OP1.2]
5.14.9.5. (1)	Note ¹
(2)	[F81-OS1.1,OP1.1]
5.14.9.6.	Note ¹
5.14.9.7. (1)	[F01-OS1.1,OP1.1]
(2)	[F03-OS1.2,OP1.2]
Subsection 5.14.10.	Drycleaning and Dyeing Plants
5.14.10.1. (1)	[F01,F81-OS1.1,OP1.1] [F02,F81-OS1.2,OS1.3,OP1.2,OP1.3] [F03-OS1.2,OP1.2]
(2)	Note ¹
5.14.10.2. (1)	[F01-OS1.1,OP1.1] [F02-OS1.2,OP1.2]
(2)	Note ¹
Subsection 5.14.11.	Extraction Operations
5.14.11.1.	Note ¹
5.14.11.2.	Note ¹
SECTION 5.15	RESERVED
SECTION 5.16	FUMIGATION AND THERMAL INSECTICIDAL FOGGING
Subsection 5.16.1.	Application
5.16.1.1. (1)	Note ¹
(2)	Note ¹
Subsection 5.16.2.	Safety Precautions
5.16.2.1. (1)	[F01-OS1.1,OP1.1] [F12-OS1.2,OP1.2]
5.16.2.2.	[F11-OS1.5,OP3.1]
5.16.2.3.	[F01-OS1.1,OP1.1]
5.16.2.4.	[F01-OS1.1,OP1.1]
5.16.2.5.	[F81-OS1.4,OP1.4]
5.16.2.6.	[F12-OS1.2,OP1.2]
5.16.2.7. (1)	[F34-OS1.1,OP1.1]
(2)	[F34,F81-OS1.1,OP1.1]
(3)	[F34-OS1.1,OP1.1]

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 5.17	HOT WORKS
Subsection 5.17.1.	Application
5.17.1.1.	Note ¹
5.17.1.2.	[F01-OS1.1,OP1.1]
Subsection 5.17.2.	Use and Maintenance of Equipment
5.17.2.1.	[F01,F81-OS1.1,OP1.1]
5.17.2.2.	Note ¹
5.17.2.3.	Note ¹
5.17.2.4.	[F81-OS1.1,OP1.1]
5.17.2.5.	Note ¹
5.17.2.6. (1)	[F82-OS1.1,OP1.1]
(2)	[F82-OS1.1,OP1.1]
(3)	[F81,F82-OS1.1,OP1.1]
5.17.2.7.	[F01,F43-OS1.1,OP1.1]
5.17.2.8.	[F01-OS1.1,OP1.1]
Subsection 5.17.3.	Prevention of Fires
5.17.3.1. (1)	[F01-OS1.1,OP1.1]
(2)	[F01-OS1.1,OP1.1]
(3)	[F01-OS1.1,OP1.1]
5.17.3.2.	[F81-OS1.1,OP1.1]
5.17.3.3. (1)	[F01-OS1.1,OP1.1]
(2)	Note ¹
(3)	[F12-OS1.2,OP1.2]
SECTION 5.18	INDUSTRIAL OVENS FOR BAKING AND DRYING PROCESSES
Subsection 5.18.1.	Application
5.18.1.1.	Note ¹
Subsection 5.18.2.	Location
5.18.2.1.	[F01-OS1.1,OP1.1] [F12-OS1.2,OP1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 5
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 5 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 5.18.3.	Construction
5.18.3.1.	[F03-OS1.2,OP1.2] Applies to “Industrial ovens shall be constructed of noncombustible materials”. [F02-OS1.2,OP1.2] Applies to “with smooth interior surfaces to permit cleaning”.
5.18.3.2.	[F01-OS1.1,OP1.1]
5.18.3.3. (1)	[F02-OS1.2,OP1.2]
(2)	[F02-OS1.2,OP1.2]
(3)	Note ¹
(4)	Note ¹
5.18.3.4. (1)(a)	[F03-OS1.2,OP1.2]
(b)	[F03-OS1.2,OP3.1]
(c)(i)	[F01-OS1.1,OP1.1] [F03-OS1.2,OP1.2,OP3.1]
(ii)	[F01-OS1.1,OP1.1] [F03-OS1.2,OP1.2,OP3.1]
Subsection 5.18.4.	Ventilation
5.18.4.1.	[F01-OS1.1,OP1.1]
5.18.4.2. (1)	[F01-OS1.1,OP1.1]
5.18.4.3. (1)	[F01-OS1.1,OP1.1] [F02,F03-OS1.2,OP1.2]
Subsection 5.18.5.	Maintenance
5.18.5.1. (1)	[F82-OS1.1,OS1.2,OP1.1,OP1.2]
(2)	[F82-OS1.1,OS1.2,OP1.1,OP1.2]
(3)	[F82-OS1.1,OS1.2,OP1.1,OP1.2]
Subsection 5.18.6.	Fire Protection
5.18.6.1.	Note ¹
5.18.6.2.	[F02-OS1.2,OP1.2]
5.18.6.3.	[F02-OS1.2,OP1.2]
5.18.6.4.	[F02-OS1.2,OP1.2]

TABLE 6
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 6 of Division B

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 6.1	GENERAL
Subsection 6.1.1.	Scope
6.1.1.1.	Note ¹
6.1.1.2.	Note ¹
SECTION 6.2	PORTABLE EXTINGUISHERS
Subsection 6.2.1.	General
6.2.1.1.	[F02,F12-OS1.2,OP1.2]
6.2.1.2.	[F82-OS1.4,OP1.4]
6.2.1.3. (1)	[F12-OS1.2,OP1.2]
(2)	Note ¹
(3)	[F81-OS1.4,OP1.4]
6.2.1.4.	[F12-OS1.2,OS1.5,OP1.2]
6.2.1.5.	[F12-OS1.2,OP1.2]
6.2.1.6.	[F06,F12-OS1.2,OP1.2]
6.2.1.7.	[F80-OS1.4,OP1.4]
6.2.1.8. (1)	[F81-OS1.4,OP1.4]
6.2.1.9.	[F20,F81-OS1.4,OP1.4]
Subsection 6.2.2.	Classification
6.2.2.1.	[F02,F12-OS1.2,OP1.2]
Subsection 6.2.3.	Selection Requirements
6.2.3.1.	[F02,F12-OS1.2,OP1.2]
Subsection 6.2.4.	Installation Requirements
6.2.4.1.	[F02,F12-OS1.2,OP1.2]
6.2.4.2.	[F12-OS1.2,OP1.2] [F30-OS3.1]
6.2.4.3.	[F12-OS1.2,OP1.2] [F30-OS3.1]
6.2.4.4.	[F12-OS1.2,OP1.2]
Subsection 6.2.5.	Grading of Hazards
6.2.5.1.	Note ¹
6.2.5.2.	Note ¹
6.2.5.3.	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 6
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 6 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 6.2.6.	Distribution
6.2.6.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
6.2.6.2.	[F02,F12-OS1.2,OP1.2]
6.2.6.3.	[F02,F12-OS1.2,OP1.2]
6.2.6.4.	[F02,F12-OS1.2,OP1.2]
6.2.6.5.	[F02,F12-OS1.2,OP1.2]
6.2.6.6.	Note ¹
6.2.6.7.	[F02,F12-OS1.2,OP1.2]
6.2.6.8. (1)	Note ¹
(2)	Note ¹
6.2.6.9. (1)	[F12-OS1.2,OP1.2]
(2)	[F02-OS1.2,OP1.2]
(3)	[F12-OS1.2,OP1.2]
6.2.6.10. (1)	Note ¹
(2)	Note ¹
6.2.6.11.	Note ¹
6.2.6.12. (1)	[F02,F12-OS1.2,OP1.2]
(2)	Note ¹
6.2.6.13.	[F02,F12-OS1.2-OP1.2] [F32-OS3.3]
6.2.6.14.	Note ¹
6.2.6.15.	Note ¹
6.2.6.16. (1)	[F02,F12-OS1.2,OP1.2]
(2)	[F12-OS1.2,OP1.2]
Subsection 6.2.7.	Inspection, Testing and Maintenance
6.2.7.1. (1)	[F82-OS1.4,OP1.4]
(2)	Note ¹
6.2.7.2.	[F82-OS1.4,OP1.4]
6.2.7.3.	[F82-OS1.4,OP1.4]
6.2.7.4. (1)	[F82-OS1.4,OP1.4]
(2)	Note ¹

TABLE 6
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 6 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
6.2.7.5.	Note ¹
6.2.7.6.	[F82-OS1.4,OP1.4]
6.2.7.7.	[F82-OS1.4,OP1.4]
6.2.7.8.	[F82-OS1.4,OP1.4]
6.2.7.9. (1)	[F82-OS1.4,OP1.4]
(2)	Note ¹
SECTION 6.3	ALARM AND VOICE COMMUNICATION SYSTEMS FOR LIFE SAFETY
Subsection 6.3.1.	General
6.3.1.1.	[F82-OS1.4]
6.3.1.2. (1)	[F13-OS1.2,OS1.5,OP1.2]
(2)	Note ¹
(3)	Note ¹
(4)	[F13-OS1.2,OS1.5,OP1.2] [F82-OS1.4,OP1.4]
(5)	[F13-OS1.2,OS1.5,OP1.2] [F82-OS1.4,OP1.4]
6.3.1.3. (1)	[F11,F12-OS1.5] [F13-OS1.2,OS1.5,OP1.2]
6.3.1.4.	[F10,F11-OS1.5] [F13-OS1.2,OS1.5,OP1.2] [F82-OS1.4,OP1.4]
6.3.1.5. (1)	[F11,F81-OS1.5]
(2)	Note ¹
6.3.1.6.	[F81-OS1.4,OP1.4]
6.3.1.7. (1)	Note ¹
(2)	Note ¹
6.3.1.8.	[F11-OS1.5] [F13-OS1.2,OP1.2] [F82-OS1.4,OP1.4]
Subsection 6.3.2.	Check, Inspect and Test
6.3.2.1. (1)	Note ¹
(2)	Note ¹
6.3.2.2. (1)	[F82-OS1.4]
(2)	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 6
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 6 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
6.3.2.3.	[F82-OS1.4,OP1.4]
6.3.2.4.	[F82-OS1.4,OP1.4]
6.3.2.5. (1)	Note ¹
(2)	[F82-OS1.4,OP1.4]
(3)	[F82-OS1.4,OP1.4]
(4)	Note ¹
6.3.2.6. (1)	Note ¹
(2)	[F11-OS1.5] [F82-OS1.4]
(3)	[F82-OS1.4]
(4)	[F82-OS1.4]
(5)	[F82-OS1.4]
(6)	Note ¹
6.3.2.7. (1)	[F81,F82-OS1.4] [F11-OS1.5]
(2)	Note ¹
Subsection 6.3.3.	Smoke Alarms – Maintenance and Testing
6.3.3.1. (1)	Note ¹
6.3.3.2. (1)	Note ¹
(2)	Note ¹
6.3.3.3. (1)	[F81,F82-OS1.4]
(2)	[F81,F82-OS1.4]
(3)	[F81,F82-OS1.4]
6.3.3.4.	[F81,F82-OS1.4]
6.3.3.5. (1)	[F81,F82-OS1.4]
6.3.3.6	[F81-OS1.4]
6.3.3.7. (1)	[F81,F82-OS1.4]
(2)	[F11-OS1.5]
(3)	Note ¹
6.3.3.8. (1)	Note ¹

TABLE 6
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 6 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	[F82-OS1.4]
(3)	[F82-OS1.4]
(4)	[F82-OS1.4]
(5)	[F82-OS1.4]
(6)	[F82-OS1.4]
Subsection 6.3.4.	Carbon Monoxide Alarms – Maintenance and Testing
6.3.4.1. (1)	Note ¹
(2)	Note ¹
6.3.4.2. (1)	Note ¹
(2)	Note ¹
6.3.4.3. (1)	[F81,F82-OS3.4]
(2)	[F81,F82-OS3.4]
6.3.4.4.	[F81,F82-OS3.4]
6.3.4.5. (1)	[F81,F82-OS3.4]
6.3.4.6.	[F81-OS3.4]
6.3.4.7. (1)	Note ¹
(2)	RESERVED
(3)	[F81,F82-OS3.4]
(4)	[F81-OS3.4]
(5)	Note ¹
	Note ¹
6.3.4.8. (1)	Note ¹
(2)	[F82-OS3.4]
(3)	[F82-OS3.4]
SECTION 6.4	STANDPIPE AND HOSE SYSTEMS
Subsection 6.4.1.	General
6.4.1.1.	[F02,F12-OS1.2,OP1.2]
6.4.1.2.	[F82-OS1.4,OP1.4]
6.4.1.3. (1)	[F81-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
(3)	[F81,F82-OS1.4,OP1.4]
6.4.1.4. (1)	[F12-OS1.4,OP1.4]
6.4.1.5.	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 6
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 6 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
6.4.1.6.	Note ¹
Subsection 6.4.2.	Maintenance and Inspection of Hose Stations and Equipment
6.4.2.1.	[F82-OS1.4,OP1.4]
6.4.2.2.	[F81-OS1.4,OP1.4]
6.4.2.3.	[F12-OS1.2,OP1.2] [F81-OS1.4,OP1.4]
6.4.2.4.	[F82-OS1.4,OP1.4]
6.4.2.5. (1)	[F82-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
6.4.2.6. (1)	[F12,F81-OS1.4,OP1.4]
(2)	[F12,F81-OS1.4,OP1.4]
6.4.2.7. (1)	Note ¹
(2)	Note ¹
Subsection 6.4.3.	Checking, Inspection and Testing
6.4.3.1. (1)	Note ¹
(2)	Note ¹
6.4.3.2.	[F82-OS1.4,OP1.4]
6.4.3.3.	[F82-OS1.4,OP1.4]
6.4.3.4. (1)	[F82-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
6.4.3.5.	[F82-OS1.4,OP1.4]
6.4.3.6. (1)	[F82-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
6.4.3.7. (1)	[F82-OS1.4,OP1.4]
(2)	Note ¹
(3)	[F82-OS1.4,OP1.4]
(4)	Note ¹
6.4.3.8.	[F82-OS1.4,OP1.4]
SECTION 6.5	SPRINKLER SYSTEMS
Subsection 6.5.1.	General
6.5.1.1. (1)	[F02-OS1.2,OP1.2]
(2)	Note ¹

TABLE 6
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 6 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
6.5.1.2.	[F02,F03-OS1.2,OP1.2] [F82-OS1.4,OP1.4]
6.5.1.3. (1)	[F81-OS1.4,OP1.4]
6.5.1.4.	[F81-OS1.4,OP1.4]
6.5.1.5. (1)	[F02-OS1.2,OP1.2]
(2)	[F02-OS1.2,OP1.2]
6.5.1.6. (1)	Note ¹
(2)	[F82-OS1.4,OP1.4]
(3)	[F81-OS1.4,OP1.4]
(4)	Note ¹
(5)	[F82-OS1.4,OP1.4]
(6)	[F82-OS1.4,OP1.4]
(7)	[F82-OS1.4,OP1.4]
(8)	[F82-OS1.4,OP1.4]
6.5.1.7. (1)	[F82-OS1.4,OP1.4]
(2)	Note ¹
6.5.1.8. (1)	Note ¹
(2)	Note ¹
Subsection 6.5.2.	Sprinkler System Shutdowns
6.5.2.1.	Note ¹
6.5.2.2. (1)	Note ¹
(2)	Note ¹
6.5.2.3.	[F81-OS1.4,OP1.4]
6.5.2.4. (1)	[F10,F12-OS1.4,OP1.4]
6.5.2.5.	[F12,F81-OS1.4,OP1.4]
6.5.2.6.	[F12,F81-OS1.4,OP1.4]
Subsection 6.5.3.	Checking
6.5.3.1.	[F82-OS1.4,OP1.4]
6.5.3.2.	[F82-OS1.4,OP1.4]
6.5.3.3.	[F82-OS1.4,OP1.4]
6.5.3.4.	[F82-OS1.4,OP1.4]
Subsection 6.5.4.	Inspection
6.5.4.1.	[F82-OS1.4,OP1.4]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 6
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 6 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
6.5.4.2.	[F82-OS1.4,OP1.4]
6.5.4.3.	[F82-OS1.4,OP1.4]
6.5.4.4. (1)	[F81-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
(3)	[F81,F82-OS1.4,OP1.4]
6.5.4.5. (1)	[F81-OS1.4,OP1.4] Applies to the “valves controlling sprinkler water supplies or alarms shall be sealed in the open position”. [F82-OS1.4,OP1.4] Applies to “valves controlling sprinkler water supplies or alarms shall be __ inspected weekly”.
(2)	[F82-OS1.4,OP1.4]
(3)	[F82-OS1.4,OP1.4]
Subsection 6.5.5.	Testing
6.5.5.1.	[F11,F12-OS1.5]
6.5.5.2. (1)	[F82-OS1.4,OP1.4]
(2)	[F81,F82-OS1.4,OP1.4]
6.5.5.3.	[F82-OS1.4,OP1.4]
6.5.5.4. (1)	[F82-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
(3)	Note ¹
(4)	[F82-OS1.4,OP1.4]
(5)	[F82-OS1.4,OP1.4]
6.5.5.5.	[F82-OS1.4,OP1.4]
6.5.5.6.	[F82-OS1.4,OP1.4]
6.5.5.7. (1)	Note ¹
(2)	Note ¹
(3)	[F82-OS1.4,OP1.4]
Subsection 6.5.6.	Maintenance
6.5.6.1.	[F81-OS1.4,OP1.4]
6.5.6.2.	[F12-OS1.2,OP1.2] [F82-OS1.4,OP1.4]
6.5.6.3.	[F12-OS1.2,OP1.2] [F51,F82-OS1.4,OP1.4]
6.5.6.4. (1)	[F81-OS1.4,OP1.4]

TABLE 6
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 6 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	Note ¹
6.5.6.5. (1)	Note ¹
(2)	[F81,F82-OS1.4,OP1.4]
(3)	[F82-OS1.4,OP1.4]
(4)	[F81-OS1.4,OP1.4]
(5)	[F82-OS1.4,OP1.4]
6.5.6.6.	[F06-OS1.4,OP1.4]
SECTION 6.6	WATER SUPPLIES FOR FIRE PROTECTION
Subsection 6.6.1.	General
6.6.1.1.	[F80-OS1.4,OP1.4]
6.6.1.2. (1)	[F81-OS1.4,OP1.4] Applies to “valves controlling water supplies used exclusively for fire protection systems or combined domestic water supplies and fire protection systems shall be sealed in the open position”. [F82-OS1.4,OP1.4] Applies to “valves controlling water supplies used exclusively for fire protection systems or combined domestic water supplies and fire protection systems shall be inspected weekly”.
(2)	[F82-OS1.4,OP1.4]
(3)	[F82-OS1.4,OP1.4]
6.6.1.3.	[F81-OS1.4,OP1.4]
6.6.1.4.	[F81-OS1.4,OP1.4]
6.6.1.5. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
Subsection 6.6.2.	Tanks
6.6.2.1.	[F82-OS1.4,OP1.4]
6.6.2.2.	[F82-OS1.4,OP1.4]
6.6.2.3.	[F81,F82-OS1.4,OP1.4]
6.6.2.4.	[F81,F82-OS1.4,OP1.4]
6.6.2.5.	[F82-OS1.4,OP1.4]
6.6.2.6. (1)	[F82-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
6.6.2.7.	[F82-OS1.4,OP1.4]
6.6.2.8.	[F82-OS1.4,OP1.4]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 6
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 6 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
6.6.2.9.	[F82-OS1.4,OP1.4]
6.6.2.10.	[F04,F20,F81,F82-OS1.4,OP1.4]
6.6.2.11.	[F82-OS1.4,OP1.4]
6.6.2.12. (1)	[F82-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
6.6.2.13.	[F82-OS1.4,OP1.4]
Subsection 6.6.3.	Fire Pumps and Reservoirs
6.6.3.1.	[F82-OS1.4,OP1.4]
6.6.3.2.	[F82-OS1.4,OP1.4]
6.6.3.3. (1)	[F82-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
6.6.3.4. (1)	[F82-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
6.6.3.5.	[F82-OS1.4,OP1.4]
6.6.3.6.	Note ¹
Subsection 6.6.4.	Hydrants
6.6.4.1.	[F12-OS1.2,OP1.2] [F82-OS1.4,OP1.4]
6.6.4.2.	[F12-OS1.2,OP1.2]
6.6.4.3.	[F12-OS1.2,OP1.2]
Subsection 6.6.5.	Inspection of Hydrants
6.6.5.1.	[F82-OS1.4,OP1.4]
6.6.5.2. (1)	[F81-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
(3)	[F81,F82-OS1.4,OP1.4]
6.6.5.3.	[F81,F82-OS1.4,OP1.4]
6.6.5.4.	[F82-OS1.4,OP1.4]
6.6.5.5.	Note ¹
6.6.5.6.	[F82-OS1.4,OP1.4]
6.6.5.7.	[F82-OS1.4,OP1.4]
6.6.5.8.	Note ¹
Subsection 6.6.6.	Uniform Marking of Hydrants
6.6.6.1.	[F12-OS1.2,OP1.2]

TABLE 6
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 6 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 6.7	EMERGENCY POWER SYSTEMS, UNIT EQUIPMENT FOR EMERGENCY LIGHTING AND EXIT SIGNS
Subsection 6.7.1.	General
6.7.1.1. (1)	[F82-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
(3)	[F12-OS1.4,OP1.5]
6.7.1.2.	[F12,F81-OS1.4,OP1.4]
6.7.1.3.	Note ¹
6.7.1.4.	[F82-OS1.4,OP1.4]
6.7.1.5. (1)	[F82-OS1.4,OP1.4]
(2)	Note ¹
6.7.1.6. (1)	[F82-OS1.5]
(2)	[F82-OS1.5]
(3)	[F82-OS1.5]
6.7.1.7. (1)	[F82-OS1.5]
(2)	[F82-OS1.5]
6.7.1.8. (1)	[F82-OS1.5]
(2)	[F82-OS1.5]
(3)	[F82-OS1.5]
SECTION 6.8	SPECIAL FIRE SUPPRESSION SYSTEMS
Subsection 6.8.1.	Inspection and Maintenance
6.8.1.1. (1)	[F82-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
(3)	[F12-OS1.4,OP1.4]
6.8.1.2.	Note ¹
6.8.1.3.	[F82-OS1.4,OP1.4]
6.8.1.4.	[F82-OS1.4,OP1.4]
6.8.1.5.	[F20,F82-OS1.4,OP1.4]
6.8.1.6.	[F81-OS1.4,OP1.4]
SECTION 6.9	DECOMMISSIONING
Subsection 6.9.1.	General
6.9.1.1.	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 6
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 6 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 6.10.	INTEGRATED FIRE PROTECTION AND LIFE SAFETY SYSTEMS
Subsection 6.10.1.	General
6.10.1.1. (1)	Note ¹
(2)	[F02,F81,F82-OS1.2,OS1.5] [F02,F81,F82-OP1.2]
(3)	Note ¹
(4)	Note ¹
6.10.1.2. (1)	Note ¹

TABLE 7
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 7 of Division B

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 7.1	GENERAL
Subsection 7.1.1.	General
7.1.1.1.	Note ¹
SECTION 7.2	INSPECTION, TESTING, NOTIFICATION AND MAINTENANCE OF CERTAIN FIRE EMERGENCY SYSTEMS
Subsection 7.2.1.	Intervals Between Tests
7.2.1.1.	[F82-OS1.4,OP1.4]
Subsection 7.2.2.	Elevators
7.2.2.1. (1)	[F82-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
(3)	[F82-OS1.4,OP1.4]
7.2.2.2. (1)	Note ¹
7.2.2.2. (2)	Note ¹
Subsection 7.2.3.	Venting to Aid Fire Fighting
7.2.3.1. (1)	[F82-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
(3)	[F82-OS1.4,OP1.4]
(4)	[F82-OS1.4,OP1.4]
Subsection 7.2.4.	Central Alarm and Control Facilities and Voice Communication Systems for Life Safety
7.2.4.1.	Note ¹
Subsection 7.2.5.	Maintenance
7.2.5.1. (1)	Note ¹
(2)	[F12-OS1.2,OS1.5,OP1.2]
(3)	[F12-OS1.2,OS1.5,OP1.2]
(4)	[F12-OS1.2,OS1.5,OP1.2]
(5)	[F12-OS1.2,OS1.5,OP1.2] [F82-OS1.4,OP1.4]
(6)	[F12-OS1.2,OS1.5,OP1.2] [F82-OS1.4,OP1.4]
(7)	[F12-OS1.2,OS1.5,OP1.2] [F82-OS1.4,OP1.4]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 7
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 7 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 7.3	INSPECTION, TESTING AND MAINTENANCE OF SMOKE CONTROL EQUIPMENT
Subsection 7.3.1.	General
7.3.1.1.	[F03,F05-OS1.5] [F12-OS1.2,OS1.5,OP1.2]
7.3.1.2.	[F82-OS1.4,OP1.4]
7.3.1.3. (1)	[F82-OS1.4,OP1.4]
(2)	[F82-OS1.4,OP1.4]
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
(6)	Note ¹
7.3.1.4.	Note ¹

TABLE 8
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 8.1	GENERAL
Subsection 8.1.1.	Application
8.1.1.1.	Note ¹
Subsection 8.1.2.	Requirements
8.1.2.1. (1)	[F01,F43-OS1.1] [F01,F43-OP1.1] [F32-OS3.3]
(2)	[F81-OS1.1,OS1.2] [F81-OP1.1,OP1.2]
8.1.2.2. (1)	[F11-OS1.5] [F13-OS1.2,OP1.2] Apply to “During periods when demolition operations create a fire hazard to parts of the building not under demolition or to neighbouring occupied spaces ___, a firewatch shall be conducted.” [F13-OP3.1] Applies to “During periods when demolition operations create a fire hazard to ___neighbouring properties, a firewatch shall be conducted.”
(2)	[F11-OS1.5] [F13-OS1.2,OP1.2,OP3.1]
(3)	[F11-OS1.5] [F13-OS1.2,OP1.2,OP3.1]
(4)	[F12,F30-OS1.2,OS1.5,OP1.2,OP3.1]
(5)	[F11-OS1.5] [F13-OS1.2,OP1.2,OP3.1]
(6)	[F01-OS1.1,OP1.1,OP3.1] [F11-OS1.5] [F12-OS1.5,OP1.2] [F13-OS1.2,OS1.5,OP1.2,OP3.1] [F82-OS1.4,OP1.4,OP3.1]
(7)	Note ¹
8.1.2.3. (1)	[F01-OS1.1,OP1.1,OP3.1]
(2)	[F02-OS1.2,OS1.5,OP3.1] [F03-OP1.2]
8.1.2.4.	[F01-OP3.1]
8.1.2.5.	Note ¹
8.1.2.6. (1)	[F12-OS1.2,OP1.2,OP3.1]
(2)	[F12-OS1.2,OP1.2,OP3.1]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 8
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(3)	[F12-OS1.2,OP1.2,OP3.1]
(4)	[F12-OS1.2,OP1.2,OP3.1]
(5)	[F12-OS1.2,OP1.2,OP3.1] [F82-OS1.4,OP1.4,OP3.1]
8.1.2.7. (1)	Note ¹
(2)	[F12-OS1.2,OP1.2]
(3)	[F12-OS1.2,OS1.5,OP1.2]
(4)	[F12-OS1.2,OP1.2]
8.1.2.8. (1)	Note ¹
(2)	[F12-OS1.2,OP1.2]
(3)	[F02-OS1.2,OP1.2]
(4)	Note ¹
8.1.2.9.	Note ¹
8.1.2.10. (1)	[F01-OS1.1,OP1.1]
(2)	[F01-OS1.1,OS1.2] [F01-OP1.1]
8.1.2.11.	[F01-OS1.1,OP1.1]
8.1.2.12.	[F10-OS1.5]
8.1.2.13.	[F11-OS1.5]
8.1.2.14. (1)	[F01,F43-OS1.1]
(2)	[F01,F81-OS1.1]
(3)	[F01,F43-OS1.1]
8.1.2.15.	[F03-OS1.2] [F03-OP1.2]
8.1.2.16. (1)	[F12,F82-OS1.2] [F12,F82-OP1.2] [F02-OP3.1]
(2)	[F02-OP1.2] [F02-OP3.1] [F02-OS1.2,OS1.5]

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 9.1	GENERAL
Subsection 9.1.1.	General
9.1.1.1.	Note ¹
9.1.1.2. (1)	Note ¹
9.1.1.3.	Note ¹
Subsection 9.1.2.	Application
9.1.2.1.	Note ¹
9.1.2.2. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
(6)	Note ¹
(7)	Note ¹
Subsection 9.1.3.	Schedule of Compliance
9.1.3.1. (1)	Note ¹
9.1.3.2.	Note ¹
Subsection 9.1.4.	Life Safety Study
9.1.4.1. (1)	Note ¹
9.1.4.2. (1)	Note ¹
9.1.4.3.	Note ¹
9.1.4.4.	Note ¹
9.1.4.5.	Note ¹
9.1.4.6. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
(6)	Note ¹
(7)	Note ¹
(8)	Note ¹
9.1.4.7. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(4)	Note ¹
(5)	Note ¹
(6)	Note ¹
(7)	Note ¹
9.1.4.8.	Note ¹
SECTION 9.2	ASSEMBLY OCCUPANCIES
Subsection 9.2.1.	Application and General
9.2.1.1. (1)	Note ¹
9.2.1.2. (1)	Note ¹
(2)	Note ¹
9.2.1.3.	Note ¹
Subsection 9.2.2.	Containment
9.2.2.1. (1)	[F03-OS1.2]
(2)	Note ¹
(3)	Note ¹
9.2.2.2. (1)	[F03-OS1.2]
(2)	Note ¹
(3)	Note ¹
9.2.2.3. (1)	[F03-OS1.2]
(2)	[F03-OS1.2]
(3)	Note ¹
(4)	[F03-OS1.2]
(5)	Note ¹
9.2.2.4. (1)	[F02-OS1.2]
(2)	Note ¹
(3)	Note ¹
Subsection 9.2.3.	Means of Egress
9.2.3.1.	Note ¹
9.2.3.2. (1)	[F10-OS1.5]
(2)	Note ¹
9.2.3.3. (1)	[F10-OS1.5]
(2)	Note ¹
9.2.3.4. (1)	[F10-OS1.5]
(2)	Note ¹

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
9.2.3.5.	[F10-OS1.5]
9.2.3.6. (1)	[F10-OS1.5]
9.2.3.7. (1)	[F10-OS1.5]
9.2.3.8.	[F10-OS1.5]
9.2.3.9.	Note ¹
9.2.3.10.	[F10-OS1.5]
9.2.3.11. (1)	[F03-OS1.2] [F05,F10,F20,F30-OS1.5]
(2)	Note ¹
9.2.3.12.	[F10,F30-OS1.5]
9.2.3.13. (1)	[F10-OS1.5]
(2)	Note ¹
9.2.3.14.	[F10-OS1.5]
9.2.3.15. (1)	[F03-OS1.2] [F05-OS1.5]
(2)	[F03-OS1.2] [F05-OS1.5]
(3)	Note ¹
(4)	Note ¹
9.2.3.16. (1)	[F03-OS1.2] [F05,F10-OS1.5]
(2)	Note ¹
9.2.3.17. (1)	[F02,F03-OS1.2] [F05-OS1.5]
(2)	[F03-OS1.2] [F05-OS1.5]
(3)	Note ¹
9.2.3.18. (1)	[F05-OS1.5]
(2)	[F05-OS1.5]
(3)	Note ¹
Subsection 9.2.4.	Fire Alarm and Detection
9.2.4.1. (1)	[F11-OS1.5]
(2)	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 9.2.5.	Suppression
9.2.5.1. (1)	[F12-OS1.2,OS1.5]
(2)	Note ¹
(3)	Note ¹
9.2.5.2. (1)	[F02-OS1.2]
(2)	Note ¹
(3)	[F02-OS1.2]
(4)	[F02-OS1.2]
(5)	Note ¹
(6)	[F02-OS1.2]
SECTION 9.3	BOARDING, LODGING AND ROOMING HOUSES
Subsection 9.3.1.	Application and General
9.3.1.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
9.3.1.2. (1)	Note ¹
(2)	Note ¹
9.3.1.3.	Note ¹
Subsection 9.3.2.	Containment
9.3.2.1.	[F03-OS1.2]
9.3.2.2. (1)(a)	[F03-OS1.2]
(b)	[F03-OS1.5]
(2)	Note ¹
9.3.2.3.	Note ¹
9.3.2.4. (1)	[F03-OS1.2]
(2)	Note ¹
9.3.2.5. (1)	[F03-OS1.2]
(2)	Note ¹
(3)	[F03-OS1.2]
(4)	[F03-OS1.2]
(5)	Note ¹
(6)	[F03-OS1.2]
(7)	Note ¹
9.3.2.6.	[F81-OH1.1]

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 9.3.3.	Means of Egress
9.3.3.1. (1)	[F10-OS1.5]
(2)	Note ¹
(3)	Note ¹
9.3.3.2. (1)	[F10-OS1.5]
(2)	[F05-OS1.5]
(3)	Note ¹
(4)	[F05-OS1.5]
(5)	Note ¹
9.3.3.3.	Note ¹
9.3.3.4. (1)	[F03-OS1.2] [F10,F20,F30-OS1.5]
(2)	Note ¹
(3)	[F10-OS1.5]
9.3.3.5. (1)	[F03-OS1.2] [F05-OS1.5]
(2)	Note ¹
(3)	Note ¹
9.3.3.6. (1)	[F03-OS1.2]
(2)	[F03-OS1.2]
9.3.3.7.	Note ¹
9.3.3.8. (1)	[F03-OS1.2] [F05-OS1.5]
(2)	[F03-OS1.2] [F05-OS1.5]
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
9.3.3.9.	Note ¹
9.3.3.10. (1)	[F10-OS1.5]
(2)	[F10-OS1.5]
9.3.3.11. (1)	[F02-OS1.2] [F10-OS1.5]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	[F02-OS1.2] [F10-OS1.5]
(3)	Note ¹
9.3.3.12.	[F10,F30-OS1.5]
9.3.3.13.	[F10-OS1.5]
Subsection 9.3.4.	Fire Alarm and Detection
9.3.4.1. (1)	[F11-OS1.5]
(2)	[F11-OS1.5]
9.3.4.2. (1)	[F11-OS1.5]
9.3.4.3.	Note ¹
9.3.4.4.	Note ¹
9.3.4.5. (1)	[F11-OS1.5]
(2)	[F81-OS1.4]
(3)	[F11-OS1.5] [F81-OS1.4]
Subsection 9.3.5.	Suppression
9.3.5.1. (1)	[F02-OS1.2]
(2)	[F02-OS1.2]
SECTION 9.4	HEALTH CARE FACILITIES
Subsection 9.4.1.	Application and General
9.4.1.1. (1)	Note ¹
9.4.1.2.	Note ¹
Subsection 9.4.2.	Containment
9.4.2.1. (1)	[F03-OS1.2]
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
(5)	[F03-OS1.2]
9.4.2.2. (1)	Note ¹
(2)	[F03-OS1.2] [F04-OS1.3]
(3)	Note ¹
9.4.2.3. (1)	Note ¹

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	[F03-OS1.2] [F04-OS1.3]
(3)	[F10-OS1.5]
(4)	Note ¹
9.4.2.4. (1)(a)	[F03-OS1.2] [F04-OS1.3]
(b)	[F02-OS1.2]
(2)	Note ¹
9.4.2.5. (1)	[F03-OS1.2]
(2)	Note ¹
(3)	Note ¹
9.4.2.6. (1)	[F03-OS1.2]
(2)	[F05-OS1.5]
(3)	Note ¹
(4)	Note ¹
9.4.2.7. (1)	[F03-OS1.2,OS1.5] [F10-OS1.5]
(2)	[F10-OS1.5]
(3)	Note ¹
9.4.2.8. (1)	[F03-OS1.2] [F05-OS1.5]
(2)	[F03-OS1.2] [F05-OS1.5]
(3)	Note ¹
(4)	Note ¹
(5)	[F03-OS1.2]
(6)	Note ¹
9.4.2.9.	[F03-OS1.2]
9.4.2.10. (1)	[F03-OS1.2]
(2)	Note ¹
(3)	[F03-OS1.2]
9.4.2.11.	[F81-OH1.1]
9.4.2.12.	[F03-OS1.2]
9.4.2.13. (1)	[F03-OS1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	Note ¹
9.4.2.14. (1)	[F02-OS1.2]
(2)	Note ¹
(3)	[F03-OS1.2]
9.4.2.15.	[F03-OS1.2]
Subsection 9.4.3.	Means of Egress
9.4.3.1. (1)	[F10-OS1.5]
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
9.4.3.2.	[F10,F12-OS1.5]
9.4.3.3. (1)	[F03-OS1.2] [F05-OS1.5]
(2)	Note ¹
9.4.3.4. (1)	[F10-OS1.5]
(2)	Note ¹
9.4.3.5. (1)	[F10-OS1.5]
(2)	Note ¹
9.4.3.6. (1)	[F10-OS1.5]
(2)	[F03-OS1.2] [F05,F10,F20,F30-OS1.5]
(3)	Note ¹
9.4.3.7.	[F10-OS1.5]
Subsection 9.4.4.	Fire Alarm and Detection
9.4.4.1.	[F11-OS1.5]
9.4.4.2. (1)	[F11,F13-OS1.5]
(2)	Note ¹
(3)	Note ¹
9.4.4.3. (1)	[F13-OS1.5,OS1.2]
(2)	Note ¹
9.4.4.4. (1)	[F03-OS1.2] [F10-OS1.5]
(2)	[F03-OS1.2] [F10-OS1.5]

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 9.4.5.	Fire Suppression
9.4.5.1. (1)	[F12-OS1.2,OS1.5]
(2)	Note ¹
(3)	Note ¹
9.4.5.2. (1)	[F02,F03-OS1.2]
(2)	Note ¹
(3)	Note ¹
9.4.5.3. (1)	[F10-OS1.5] [F12-OS1.2]
(2)	Note ¹
9.4.5.4. (1)	[F11-OS1.5]
(2)	Note ¹
9.4.5.5. (1)	[F02-OS1.2]
(2)	[F02-OS1.2] [F81-OS1.4]
(3)	Note ¹
(4)	[F11,F13-OS1.5]
(5)	[F02-OS1.2] [F81-OS1.4]
(6)	Note ¹
(7)	Note ¹
SECTION 9.5	BUILDINGS UP TO AND INCLUDING 6 STOREYS IN BUILDING HEIGHT WITH RESIDENTIAL OCCUPANCIES
Subsection 9.5.1.	Application and General
9.5.1.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
9.5.1.2. (1)	Note ¹
(2)	Note ¹
9.5.1.3.	Note ¹
Subsection 9.5.2.	Containment
9.5.2.1. (1)	[F03-OS1.2]
(2)	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(3)	Note ¹
(4)	Note ¹
(5)	[F03-OS1.2]
(6)	Note ¹
9.5.2.2. (1)	Note ¹
(2)	[F03-OS1.2] [F04-OS1.3]
(3)	Note ¹
(4)	Note ¹
9.5.2.3. (1)	Note ¹
9.5.2.4. (1)	Note ¹
(2)	[F03-OS1.2] [F04-OS1.3]
(3)	[F11-OS1.5]
(4)	Note ¹
9.5.2.5. (1)(a)	[F03-OS1.2] [F04-OS1.3]
(b)	[F02-OS1.2]
(2)	Note ¹
(3)	Note ¹
9.5.2.6. (1)	[F03-OS1.2]
(2)	Note ¹
(3)	Note ¹
9.5.2.7. (1)	[F03-OS1.2]
(2)	[F03-OS1.2] [F05-OS1.5]
(3)	Note ¹
9.5.2.8. (1)	[F03-OS1.2] [F05-OS1.5]
(2)	[F03-OS1.2] [F05-OS1.5]
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(6)	Note ¹
(7)	[F03-OS1.2]
(8)	Note ¹
9.5.2.9. (1)(a)	[F03-OS1.2]
(b)(i)	[F02-OS1.2]
(ii)	[F03-OS1.2] [F11-OS1.5]
(2)	Note ¹
(3)	Note ¹
9.5.2.10. (1)	[F03-OS1.2]
(2)	Note ¹
(3)	Note ¹
9.5.2.11.	[F81-OH1.1]
9.5.2.12. (1)	[F03-OS1.2]
(2)	[F03-OS1.2]
9.5.2.13. (1)	[F03-OS1.2]
(2)	Note ¹
9.5.2.14. (1)	[F03-OS1.2]
(2)	[F02-OS1.2]
(3)	Note ¹
(4)	Note ¹
9.5.2.15.	[F03-OS1.2]
Subsection 9.5.3.	Means of Egress
9.5.3.1. (1)	[F10-OS1.5]
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
9.5.3.2. (1)	[F10-OS1.5]
(2)	Note ¹
(3)	Note ¹
9.5.3.3. (1)	[F03-OS1.2] [F05-OS1.5]
(2)	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(3)	[F03-OS1.2] [F05-OS1.5]
9.5.3.4.	[F10-OS1.5]
9.5.3.5. (1)	[F10-OS1.5]
(2)	[F10-OS1.5]
(3)	[F10-OS1.5]
9.5.3.6. (1)	[F02-OS1.2] [F10-OS1.5]
(2)	Note ¹
9.5.3.7. (1)	[F03-OS1.2] [F10,F20,F30-OS1.5]
(2)	[F05-OS1.5]
(3)	[F05-OS1.5]
(4)	[F05-OS1.5]
(5)	Note ¹
(6)	Note ¹
9.5.3.8.	[F10-OS1.5]
9.5.3.9. (1)	[F10-OS1.5]
(2)	[F10-OS1.5]
(3)	[F10-OS1.5]
Subsection 9.5.4.	Fire Alarm and Detection
9.5.4.1. (1)	[F11-OS1.5]
(2)	Note ¹
(3)	Note ¹
9.5.4.2. (1)	Note ¹
9.5.4.3. (1)	[F11-OS1.5]
(2)	[F11-OS1.5]
(3)	Note ¹
9.5.4.4. (1)	[F11-OS1.5]
9.5.4.5. (1)	[F11-OS1.5]
(2)	Note ¹
(3)	[F81-OS1.4]
(4)	Note ¹
9.5.4.6.	Note ¹

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 9.5.5.	Suppression
9.5.5.1. (1)	[F12-OS1.2,OS1.5]
(2)	Note ¹
9.5.5.2. (1)	[F02,F12-OS1.2]
(2)	Note ¹
(3)	Note ¹
9.5.5.3. (1)	[F02-OS1.2]
(2)	Note ¹
(3)	Note ¹
SECTION 9.6	BUILDINGS HIGHER THAN 6 STOREYS IN BUILDING HEIGHT WITH RESIDENTIAL OCCUPANCIES
Subsection 9.6.1.	Application and General
9.6.1.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
9.6.1.2. (1)	Note ¹
(2)	Note ¹
9.6.1.3.	Note ¹
Subsection 9.6.2.	Containment
9.6.2.1. (1)	[F03-OS1.2]
(2)	Note ¹
9.6.2.2. (1)	[F03-OS1.2]
(2)	[F03-OS1.2] [F04-OS1.3]
(3)	Note ¹
9.6.2.3. (1)	[F02-OS1.2]
(2)	Note ¹
9.6.2.4. (1)	[F03-OS1.2]
(2)	Note ¹
9.6.2.5. (1)	[F03-OS1.2]
(2)	[F03-OS1.2] [F05-OS1.5]
(3)	Note ¹
(4)	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
9.6.2.6. (1)	[F03-OS1.2] [F05-OS1.5]
(2)	[F03-OS1.2]
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
(6)	Note ¹
(7)	Note ¹
(8)	[F03-OS1.2]
(9)	Note ¹
9.6.2.7. (1)(a)	[F03-OS1.2]
(b)	[F02-OS1.2]
(2)	Note ¹
9.6.2.8. (1)	[F03-OS1.2]
(2)	Note ¹
9.6.2.9. (1)	[F03-OS1.2]
(2)	Note ¹
9.6.2.10.	[F81-OH1.1]
9.6.2.11. (1)	[F02,F03-OS1.2]
9.6.2.12. (1)	[F03-OS1.2]
(2)	Note ¹
9.6.2.13. (1)	[F03-OS1.2]
(2)	[F02-OS1.2]
(3)	Note ¹
9.6.2.14.	[F03-OS1.2] [F11-OS1.5]
9.6.2.15. (1)	[F03-OS1.2]
(2)	[F02-OS1.2]
(3)	Note ¹
9.6.2.16. (1)	[F03-OS1.2,OS1.5]
(2)	Note ¹
(3)	Note ¹
Subsection 9.6.3.	Means of Egress
9.6.3.1. (1)	[F10-OS1.5]

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
9.6.3.2. (1)	[F10-OS1.5]
(2)	[F10-OS1.5]
9.6.3.3. (1)	[F10-OS1.5]
9.6.3.4. (1)	[F03-OS1.2] [F05-OS1.5]
(2)	Note ¹
9.6.3.5.	[F10-OS1.5]
9.6.3.6. (1)	[F10-OS1.5]
(2)	[F10-OS1.5] [F12-OS1.2,OS1.5]
9.6.3.7. (1)	[F02-OS1.2] [F10-OS1.5]
(2)	Note ¹
9.6.3.8.	[F10-OS1.5]
9.6.3.9. (1)	[F10-OS1.5]
(2)	[F10-OS1.5]
(3)	[F10-OS1.5]
Subsection 9.6.4.	Fire Alarm and Detection
9.6.4.1. (1)	[F11-OS1.5] [F13-OS1.2,OS1.5]
(2)	Note ¹
9.6.4.2. (1)	[F11-OS1.5] [F13-OS1.2,OS1.5]
(2)	[F11-OS1.5] [F13-OS1.2,OS1.5]
(3)	Note ¹
9.6.4.3.	[F11-OS1.5]
9.6.4.4. (1)	[F81-OS1.4]
(2)	Note ¹
9.6.4.5. (1)	[F12-OS1.5]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

Fire Code Supplement FCS-1

Office of the Fire Marshal

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	Note ¹
9.6.4.6.	[F13-OS1.5]
9.6.4.7. (1)	[F11,F12-OS1.5]
(2)	[F11,F12-OS1.5]
(3)	Note ¹
9.6.4.8.	[F11,F13-OS1.5] [F81-OS1.4]
9.6.4.9.	[F03-OS1.2]
9.6.4.10. (1)	[F11-OS1.5]
(2)	Note ¹
(3)	[F81-OS1.4]
Subsection 9.6.5.	Suppression
9.6.5.1. (1)	[F12- OS1.2,OS1.5]
(2)	Note ¹
9.6.5.2. (1)	[F02,F12-OS1.2]
(2)	Note ¹
(3)	Note ¹
(4)	[F81-OS1.4]
9.6.5.3. (1)	[F12-OS1.2]
(2)	Note ¹
(3)	Note ¹
9.6.5.4. (1)	[F12-OS1.2]
(2)	Note ¹
(3)	Note ¹
9.6.5.5. (1)	[F02-OS1.2] [F81-OS1.4]
(2)	Note ¹
9.6.5.6. (1)	[F12-OS1.2,OS1.5]
(2)	Note ¹
(3)	Note ¹
9.6.5.7. (1)	[F81-OS1.4]
(2)	Note ¹

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
SECTION 9.7	BUILDINGS WITH A CARE OCCUPANCY OR A RETIREMENT HOME
Subsection 9.7.1.	Application and General
9.7.1.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
9.7.1.2. (1)	Note ¹
(2)	Note ¹
9.7.1.3. (1)	Note ¹
(2)	Note ¹
9.7.1.4.	Note ¹
Subsection 9.7.2.	Containment
9.7.2.1. (1)	[F03-OS1.2]
(2)	Note ¹
(3)	[F03-OS1.2] [F05,F10-OS1.5]
Subsection 9.7.3.	Means of Egress
9.7.3.1. (1)	[F10-OS1.5]
(2)	[F10-OS1.5]
(3)	[F10-OS1.5]
(4)	Note ¹
Subsection 9.7.4.	Fire Alarm and Detection
9.7.4.1. (1)	[F13-OS1.2,OS1.5]
(2)	Note ¹
(3)	Note ¹
9.7.4.2. (1)	[F13-OS1.2,OS1.5]
(2)	Note ¹
(3)	Note ¹
9.7.4.3. (1)	[F11,F13-OS1.5]
(2)	[F81-OS1.4]
(3)	Note ¹
(4)	[F81-OS1.4] [F11,F13-OS1.5]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

Fire Code Supplement FCS-1**Office of the Fire Marshal**

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(5)	[F81-OS1.4] [F11,F13-OS1.5]
(6)	Note ¹
9.7.4.4. (1)	[F11,F12-OS1.5]
(2)	Note ¹
(3)	Note ¹
Subsection 9.7.5.	Suppression
9.7.5.1. (1)	[F02-OS1.2] [F81-OS1.4]
(2)	[F02-OS1.2] [F81-OS1.4]
(3)	Note ¹
(4)	Note ¹
(5)	[F11,F13-OS1.5]
(6)	[F02-OS1.2] [F81-OS1.4]
(7)	Note ¹
(8)	Note ¹
SECTION 9.8	TWO UNIT RESIDENTIAL OCCUPANCIES
Subsection 9.8.1.	Application and General
9.8.1.1. (1)	Note ¹
(2)	Note ¹
9.8.1.2. (1)	Note ¹
Subsection 9.8.2.	Containment
9.8.2.1. (1)	[F03-OS1.2]
(2)	[F03-OS1.2]
(3)	Note ¹
(4)	Note ¹
9.8.2.2. (1)	[F03-OS1.2]
(2)	Note ¹
(3)	Note ¹
9.8.2.3. (1)	Note ¹
9.8.2.4.	[F81-OH1.1]
9.8.2.5. (1)	[F03-OS1.2]

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	Note ¹
(3)	Note ¹
Subsection 9.8.3.	Means of Egress
9.8.3.1.	Note ¹
9.8.3.2. (1)	[F10-OS1.5]
(2)	[F02-OS1.2] [F10-OS1.5]
(3)	Note ¹
9.8.3.3. (1)	[F10-OS1.5]
(2)	[F11-OS1.5]
9.8.3.4. (1)(a)	[F10-OS1.5]
(b)	[F10,F11-OS1.5]
(2)	[F10-OS1.5]
(3)	[F10-OS1.5]
9.8.3.5.	Note ¹
Subsection 9.8.4.	Fire Alarm and Detection
9.8.4.1. (1)	[F11-OS1.5]
(2)	[F11-OS1.5] [F81-OS1.4]
9.8.4.2. (1)	[F11-OS1.5] [F81-OS1.4]
(2)	Note ¹
(3)	[F81-OS1.4]
(4)	[F11-OS1.5]
(5)	Note ¹
Subsection 9.8.5.	Suppression
9.8.5.1.	[F02-OS1.2] [F81-OS1.4]
Subsection 9.8.6.	Electrical
9.8.6.1. (1)	[F01-OS1.1]
(2)	[F82-OS1.1]
(3)	Note ¹
SECTION 9.9	HOTELS

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
Subsection 9.9.1.	Application and General
9.9.1.1. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
(6)	Note ¹
(7)	Note ¹
9.9.1.2. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
Subsection 9.9.2.	Containment
9.9.2.1. (1)	[F03-OS1.2]
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
(6)	[F03-OS1.2]
(7)	Note ¹
(8)	Note ¹
9.9.2.2. (1)	Note ¹
(2)	[F03-OS1.2] [F04-OS1.3]
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
9.9.2.3. (1)	Note ¹
(2)	[F03-OS1.2] [F04-OS1.3]
(3)	[F11-OS1.5]
(4)	Note ¹
9.9.2.4. (1)	[F02,F03-OS1.2] [F04-OS1.3]
(2)	Note ¹

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(3)	Note ¹
9.9.2.5. (1)	[F02,F03-OS1.2] [F04-OS1.3]
(2)	Note ¹
9.9.2.6. (1)	[F03-OS1.2]
(2)	Note ¹
(3)	Note ¹
9.9.2.7. (1)	Note ¹
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
9.9.2.8. (1)	[F03-OS1.2]
(2)	[F03-OS1.2] [F05-OS1.5]
(3)	Note ¹
9.9.2.9. (1)	[F03-OS1.2]
(2)	Note ¹
9.9.2.10. (1)	[F03-OS1.2]
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
(6)	Note ¹
(7)	[F03-OS1.2]
(8)	Note ¹
9.9.2.11.	[F03-OS1.2]
9.9.2.12. (1)	[F03-OS1.2]
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
(5)	[F81-OH1.1]
(6)	Note ¹
(7)	Note ¹
9.9.2.13. (1)	[F03-OS1.2]

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

Fire Code Supplement FCS-1

Office of the Fire Marshal

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(2)	Note ¹
9.9.2.14. (1)	[F03-OS1.2]
(2)	[F03-OS1.2]
(3)	[F02,F03-OS1.2]
(4)	Note ¹
9.9.2.15. (1)	Note ¹
(2)	[F03-OS1.2,OS1.5]
(3)	[F03-OS1.2,OS1.5]
(4)	Note ¹
(5)	Note ¹
9.9.2.16. (1)	[F02-OS1.2]
(2)	[F02-OS1.2]
(3)	[F02-OS1.2]
9.9.2.17. (1)	[F05-OS1.5]
(2)	Note ¹
9.9.2.18.	[F05-OS1.5]
9.9.2.19. (1)	Note ¹
(2)	[F01-OS1.1] [F02,F03-OS1.2] [F82-OS1.1,OS1.2]
(3)	[F02-OS1.2]
(4)	[F02-OS1.2]
(5)	[F03-OS1.2]
(6)	Note ¹
Subsection 9.9.3.	Means of Egress
9.9.3.1. (1)	[F10-OS1.5]
(2)	[F10-OS1.5]
9.9.3.2. (1)	[F10-OS1.5]
(2)	[F10-OS1.5]
(3)	[F10-OS1.5]
(4)	Note ¹
(5)	[F10-OS1.5]
(6)	[F10-OS1.5]
(7)	Note ¹

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
(8)	Note ¹
(9)	[F10-OS1.5]
(10)	[F10-OS1.5]
(11)	[F10-OS1.5]
9.9.3.3. (1)	[F10-OS1.5]
(2)	[F10-OS1.5]
(3)	[F10-OS1.5]
(4)	Note ¹
(5)	[F10-OS1.5]
(6)	Note ¹
9.9.3.4.	Note ¹
9.9.3.5. (1)	[F10-OS1.5]
9.9.3.6. (1)	[F03-OS1.2] [F05-OS1.5]
(2)	[F10-OS1.5]
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
(6)	Note ¹
9.9.3.7. (1)	Note ¹
(2)	[F03-OS1.2] [F10,F20,F30-OS1.5]
(3)	Note ¹
(4)	[F05-OS1.5]
(5)	[F05-OS1.5]
(6)	[F10-OS1.5]
(7)	[F10-OS1.5]
(8)	Note ¹
9.9.3.8.	[F10-OS1.5]
9.9.3.9.	[F10-OS1.5]
9.9.3.10. (1)	[F10-OS1.5]
(2)	[F10-OS1.5] [F12-OS1.2,OS1.5]
(3)	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
9.9.3.11. (1)	[F02-OS1.2] [F05-OS1.5]
(2)	Note ¹
9.9.3.12.	[F02-OS1.2]
9.9.3.13.	[F10-OS1.5]
9.9.3.14. (1)	[F10-OS1.5]
(2)	[F10-OS1.5]
(3)	[F10-OS1.5]
Subsection 9.9.4.	Fire Alarm and Detection
9.9.4.1. (1)	[F11-OS1.5] [F13-OS1.2,OS1.5]
(2)	Note ¹
(3)	Note ¹
9.9.4.2. (1)	[F11-OS1.5] [F13-OS1.2,OS1.5]
(2)	[F11-OS1.5] [F13-OS1.2,OS1.5]
(3)	Note ¹
(4)	Note ¹
9.9.4.3. (1)	[F11-OS1.5] [F13-OS1.2,OS1.5]
(2)	Note ¹
(3)	[F11-OS1.5] [F13-OS1.2,OS1.5]
9.9.4.4. (1)	[F11,F13-OS1.5]
9.9.4.5. (1)	[F12-OS1.2,OS1.5]
(2)	Note ¹
9.9.4.6.	[F03-OS1.2]
9.9.4.7. (1)	[F81-OS1.4]
9.9.4.8.	[F11-OS1.5] [F13-OS1.2,OS1.5]
9.9.4.9.	[F11-OS1.5] [F13-OS1.2,OS1.5]
9.9.4.10.	[F81-OS1.4]

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
9.9.4.11. (1)	[F81-OS1.4]
(2)	Note ¹
(3)	[F81-OS1.4]
(4)	[F81-OS1.4]
9.9.4.12. (1)	[F81-OS1.4]
(2)	[F81-OS1.4]
(3)	Note ¹
9.9.4.13. (1)	[F11-OS1.5]
(2)	[F11-OS1.5] [F81-OS1.4]
(3)	Note ¹ Applies to “Smoke alarms __ shall have no disconnect switches between the overcurrent device and the smoke alarm.” [F81-OS1.4] Applies to “Smoke alarms shall be installed with permanent connections to an electrical circuit”.
(4)	Note ¹
(5)	[F11-OS1.5]
9.9.4.14. (1)	[F11,F12-OS1.5]
(2)	[F11,F12-OS1.5]
(3)	Note ¹
Subsection 9.9.5.	Suppression
9.9.5.1. (1)	[F12-OS1.2,OS1.5]
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
9.9.5.2. (1)	[F02,F12-OS1.2]
(2)	Note ¹
(3)	Note ¹
(4)	Note ¹
(5)	Note ¹
(6)	Note ¹
9.9.5.3. (1)	[F12-OS1.2,OS1.5]
(2)	Note ¹
(3)	Note ¹

Note¹ – Objectives and functional statements have not been attributed and the acceptable solution in Division B of the Fire Code applies.

TABLE 9
Objectives and Functional Statements Attributed to the
Acceptable Solutions in Part 8 of Division B
(continued)

Column 1 Acceptable Solution	Column 2 Objectives and Functional Statements
9.9.5.4.	[F02-OS1.2] [F81-OS1.4]
9.9.5.5. (1)	[F81-OS1.4]
(2)	[F81-OS1.4]

APPENDICES TO THE FIRE CODE

TABLE OF CONTENTS

APPENDIX A	1986 BUILDING CODE REFERENCES
APPENDIX B	1990 BUILDING CODE REFERENCES
APPENDIX C	1994 BUILDING CODE REFERENCES
APPENDIX D	EXPLANATORY NOTES
APPENDIX E	CONVERSION FACTORS

APPENDIX A

1986 Building Code References

This Appendix contains extracts from the 1986 Building Code (O. Reg. 419/86) as referenced in Sections 9.2, 9.3 and 9.4 in Division B of the Fire Code. The complete quote is provided wherever possible. In some cases, the Building Code reference is very lengthy and thus only the relevant portions have been reproduced. Information in *italics* contains editorial notes rather than direct quotes from the Building Code.

EXTRACTS FROM SECTION 3.1

3.1.3.2.(1) Except as provided in Sentences (2) to (4), **major occupancies** shall be separated from adjoining **major occupancies** by **fire separations** having **fire-resistance ratings** conforming to Table 3.1.3.A.

(2) No **major occupancy** of Group F, Division 1 shall be contained within a **building** with any **occupancy** classified as Group A, B or C.

(3) Not relevant to Fire Code reference.

(4) Not relevant to Fire Code reference.

(5) The **fire separations** required between **major occupancies** in this Article may be penetrated by floor openings protected in conformance with Subsection 3.2.8., except for **fire separations** for Group F, Division 1 **major occupancies** and for **mezzanines** described in Sentence 3.2.8.1.(4).

TABLE 3.1.3.A.

Forming part of Sentence 3.1.3.2.(1)

Major Occupancy	Minimum Fire-Resistance Rating of Fire Separation, h ⁽¹⁾											
	Adjoining Major Occupancy											
	A-1	A-2	A-3	A-4	B-1	B-2	C	D	E	F-1	F-2	F-3
A-1	—	1	1	1	2	2	1	1	2	(2)	2	1
A-2	1	—	1	1	2	2	1	1	2	(2)	2	1
A-3	1	1	—	1	2	2	1	1	2	(2)	2	1
A-4	1	1	1	—	2	2	1	1	2	(2)	2	1
Column 1	2	3	4	5	6	7	8	9	10	11	12	13

Notes to Table 3.1.3.A:

⁽¹⁾ Section 3.3 contains requirements for the separation of occupancies and tenancies that are in addition to the requirements for the separation of major occupancies.

⁽²⁾ See Sentence 3.1.3.2.(2).

Table 3.1.3.A. has been edited to show only the requirements for Group A occupancies, as only this is relevant to the Fire Code reference. Section 3.3, "Safety Requirements Within Floor Areas" that is referenced in the Notes to Table 3.1.3.A. can be found in the current edition of the Building Code and is therefore not reproduced in this Appendix.

3.1.4.4. *The requirements for heavy timber construction are essentially unchanged since 1986 and can be found in the current edition of the Building Code.*

3.1.4.5. *This Article deals with buildings that are required to be of noncombustible construction and the combustible elements that are allowed to be used in the construction of these buildings. This information can be found in the current Building Code and is therefore not reproduced in its entirety in this Appendix.*

(2)(a)(iv) *This Subclause requires that wood furring strips not exceed 38 mm by 38 mm and be attached directly to a continuous noncombustible backing.*

(3) **Combustible** millwork, interior cladding and finishing materials shall be limited to

(g) interior wall finishes other than foamed plastics that

(i) are not more than 25 mm in thickness, and

(ii) have a **flame-spread rating** of not more than 150 on any exposed surface, or any surface that would be exposed by cutting through the material in any direction,

- (h) interior ceiling finishes other than foamed plastics that
 - (i) are not more than 25 mm in thickness, except for exposed **fire-retardant treated wood** battens, and
 - (ii) consist of a material having a **flame-spread rating** of not more than 25 on any exposed surface or on any surface that would be exposed by cutting through the material in any direction or **fire-retardant treated wood**, except that not more than 10 percent of the ceiling area within each **fire compartment** is permitted to have a **flame-spread rating** of not more than 150.

3.1.5.1.(1) Except as provided in Sentences (2) and (3), where a material, assembly of materials or a structural member is required to have a **fire-resistance rating**, the rating shall be determined on the basis of the results of tests conducted in conformance with CAN4-S101, "Standard Methods of Fire Endurance Tests of Building Construction and Materials".

(2) A material, assembly of materials or a structural member may be assigned a **fire-resistance rating** on the basis of Chapter 2, "Fire Performance Ratings" of the Supplement to the NBC 1985.

(3) Not relevant to Fire Code reference.

(4) Where a ceiling construction has a suspended membrane ceiling with lay-in panels or tiles which contribute to the required **fire-resistance rating** of the assembly, hold down clips or other means shall be provided to prevent the lifting of such panels or tiles in the event of a fire.

3.1.5.2.(1) Floor, roof and ceiling assemblies shall be rated for exposure to fire on the underside.

(2) **Firewalls** and interior vertical **fire separations** shall be rated for exposure to fire on each side.

(3) Exterior walls shall be rated for exposure to fire from inside the **building**.

3.1.5.3. The use of materials or assemblies of materials having a greater **fire-resistance rating** than required shall entail no obligation to exceed in whole or in part the minimum **fire-resistance ratings** required by this Part.

3.1.5.4.(1) Except as provided in Sentence (2), and in Articles 3.2.2.9. to 3.2.2.53. for mixed types of construction, all **loadbearing** walls, columns and arches in the **storey** immediately below a floor or roof assembly required to have a **fire-resistance rating** shall have a **fire-resistance rating** at least equivalent to that of the supported floor or roof assembly.

(2) **Loadbearing** walls, columns and arches supporting a **service room** or service space need not conform to Sentence (1).

(3) Where an assembly is required to be of **noncombustible construction** and have a **fire-resistance rating**, it shall be supported by **noncombustible construction**.

3.1.6.1.(1) Any wall, **partition** or floor assembly required to be a **fire separation** shall

- (a) except as permitted in Sentence (2), be constructed as a continuous element, and
- (b) where required in this Part, have a **fire-resistance rating** as specified.

(2) Openings in **fire separations** shall be protected with **closures**, shafts or other means in conformance with 3.1.6.4. to 3.1.6.11., and with Subsections 3.1.7. and 3.2.8.

3.1.6.2. **Combustible construction** that abuts on or is supported by a **noncombustible fire separation** shall be constructed so that its collapse under fire conditions will not cause the collapse of the **fire separation**.

3.1.6.3.(1) Except as provided in Sentence (2), a **horizontal service space** or other concealed space located above a required vertical **fire separation**, including the walls of a vertical shaft, shall be divided at the **fire separation** by an equivalent **fire separation** within the service space, and the separation shall terminate so that a smoke-tight joint is provided at the point where it abuts on or intersects the floor and the roof slab or deck.

(2) Where a **horizontal service space** or other concealed space is located above a required vertical **fire separation** other than a vertical shaft, such space need not be divided at the **fire separation** as required in Sentence (1) provided the construction between such space and the space below is constructed as a **fire separation** at least equivalent to that required for the vertical **fire separation**, except that where the vertical **fire separation** is not required to have a **fire-resistance rating** greater than $\frac{3}{4}$ h, the **fire-resistance rating** may be reduced to $\frac{1}{2}$ h.

(3) Where a shaft, including **exit** enclosures, penetrates a **fire separation**, it shall extend through any **horizontal service space** or any other concealed space and shall terminate so that a smoke-tight joint is provided at the point where the shaft abuts on or intersects the floor and the roof slab or deck, except as provided in Subsection 3.5.3 where the shaft pierces through a roof assembly.

3.1.6.4.(1) Except as provided in Sentences (2) and 3.1.6.10.(2), where an opening in a **fire separation** is required to be protected with a **closure** having a **fire-protection rating**, the **fire-protection rating** shall be determined on the basis of the results of tests conducted in conformance with the appropriate provisions in CAN4-S106, "Standard Method for Fire Tests of Window and Glass Block Assemblies", CAN4-S104, "Standard Method for Fire Tests of Door Assemblies", or CAN4-S112, "Standard Method of Fire Test of Fire Damper Assemblies".

(2) Except as provided in Sentence 3.1.6.7.(1), the **fire-protection rating** of **closures** shall conform to Table 3.1.6.A. for the required grade of **fire separation**.

TABLE 3.1.6.A.

Forming Part of Sentence 3.1.6.4.(2)

Fire-Resistance Rating of Fire Separation, h	Required Fire-Protection Rating of Closure, h
$\frac{3}{4}$	$\frac{3}{4}$
1	$\frac{3}{4}$
$1\frac{1}{2}$	1
2	$1\frac{1}{2}$
3	2
4	3
Column 1	2

(3) Except where **fire dampers**, window assemblies and glass block are used as **closures**, 2 **closures** of the same **fire-protection rating** installed on opposite sides of the same opening may be deemed to have a **fire-protection rating** equal to the sum of the **fire-protection ratings** of the **closures**.

(4) Except as otherwise specified in this Part, every fire door, window assembly or glass block used as a **closure** in a required **fire separation** shall

- (a) be installed in conformance with Chapters 2 to 13 of NFPA 80, "Fire Doors and Windows", and
- (b) where required to have a **fire-protection rating**, have labels or classification marks to identify the testing laboratory.

APPENDIX A

(5) Where a door is installed so that it may damage the integrity of a **fire separation** if its swing is unrestricted, door stops shall be installed to prevent such damage.

(6) The size of an opening in an interior **fire separation** required to be protected with a **closure** shall not exceed 11 m², with no dimension greater than 3.7 m, when the **fire compartments** on both sides of the **fire separation** are not **sprinklered**.

(7) The size of an opening in an interior **fire separation** required to be protected with a **closure** shall not exceed 22 m², with no dimension greater than 6 m, when the **fire compartments** on both sides of the **fire separation** are **sprinklered**.

3.1.6.5. *This Article deals with fire dampers in fire separations. Comparable requirements can be found in the current Building Code.*

3.1.6.6. *This Article deals with fire dampers in fire separations. Comparable requirements can be found in the current Building Code.*

3.1.6.7.(1) A door assembly having a 20 min **fire-protection rating** is permitted to be used as a **closure** in

- (a) a **fire separation** not required to have a **fire-resistance rating** exceeding 1 h and located between
 - (i) a public corridor and a suite,
 - (ii) a corridor and adjacent sleeping rooms and bedrooms, or
 - (iii) a corridor and adjacent classrooms, offices and libraries in Group A, Division 2 **major occupancies**, and
- (b) a **fire separation** not required to have a **fire-resistance rating** exceeding $\frac{3}{4}$ h and located in a **building** not exceeding 3 storeys in **building height**.

(2) The requirements for **noncombustible** sills and **combustible** floor coverings in NFPA 80, "Fire Doors and Windows", do not apply to doors described in Sentence (1).

(3) Doors described in Sentence (1) shall have a clearance of not more than 6 mm at the bottom and not more than 3 mm at the sides and top.

3.1.6.8.(1) Except as provided in Sentence (2), every door in a **fire separation** other than doors to freight elevators and dumbwaiters shall be equipped with a self-closing device designed to return the door to the closed position after each use.

(2) Self-closing devices need not be provided on doors that are located between

- (a) *Not relevant to the Fire Code reference.*
- (b) *Not relevant to the Fire Code reference.*
- (c) patients' bedrooms or a corridor and adjacent patients' bedrooms where the doors are within a **fire compartment** described in Sentence 3.3.3.6.(2).

(3) Hold-open devices are permitted on doors in required **fire separations**, other than **exit** doors in a **building** greater than 3 storeys in **building height** and doors on vestibules required in Article 3.3.7.6., provided they are designed to release the door in conformance with Sentences (4) and (5).

(4) Except as permitted in Sentence (5), hold-open devices in Sentence (3) shall be designed to release

- (a) upon a signal from a smoke detector located as described in Appendix A of NFPA 80, "Fire Doors and Windows", or from a **smoke detector** as required in Sentence 3.2.4.10.(4) for sleeping rooms in Group B **occupancies**, except that hold-open devices on doors other than **exit** doors, doors opening into a **public corridor**, and egress doors in Sentence 3.4.2.3.(2) may be released by a sprinkler system or heat-actuated device provided the door does not serve a Group A, Group B or Group C **occupancy** and is not required to function as part of a smoke control system, and

- (b) upon a signal from the **building** fire alarm system where a fire alarm system is provided, except that this requirement does not apply to a hold-open device on a door located between a corridor used by the public and an adjacent patient's bedroom in hospitals and nursing homes or to a hold-open device that is designed to release by a heat-actuated device in conformance with Clause (a).

(5) Not relevant to the Fire Code reference.

3.1.6.9. Except as permitted in Subsection 3.3.3., every swing-type door in a **fire separation** shall be equipped with a positive latching mechanism designed to hold the door in the closed position after each use.

3.1.6.10.(1) Except as provided in Article 3.1.6.11. for the separation of **exits**, an opening or openings in a **fire separation** having a **fire-resistance rating** of not more than 1 h may be protected with fixed wired glass assemblies or glass blocks installed in conformance with NFPA 80, "Fire Doors and Windows".

(2) Wired glass assemblies in Sentence (1), which are used in vertical **fire separations**, need not be tested in conformance with Sentence 3.1.6.4.(1) provided that the wired glass is

- (a) at least 6 mm thick,
- (b) reinforced by a steel wire mesh in the form of diamonds, squares or hexagons having dimensions of approximately 25 mm across the flats, using wire of at least 0.45 mm diam, or approximately 13 mm across the flats, using wire of at least 0.40 mm diam, the wire to be centrally embedded during manufacture and welded or intertwined at each intersection,
- (c) set in fixed steel frames having a minimum metal thickness of 1.35 mm and providing a glazing stop of at least 20 mm on each side of the glass, and
- (d) limited in area so that
 - (i) individual panes are not more than 0.84 m², with neither height nor width exceeding 1.4 m, and
 - (ii) the area not structurally supported by mullions does not exceed 7.5 m².

(3) Where glass blocks are permitted in Sentence (1), they shall be installed in accordance with Subsection 4.3.2. and reinforced with steel reinforcement in each horizontal joint.

3.1.6.11.(1) Except as provided in Sentence (3), the maximum temperature rise on the opaque portion of the unexposed side of a door used as a **closure** in a **fire separation**, when tested in conformance with Sentence 3.1.6.4.(1), shall conform to Table 3.1.6.B. when used in the locations shown in the Table.

(2) Except as provided in Sentence (3), the maximum area of wired glass in a door and the maximum area of wired glass panels or glass block not in a door shall conform to Table 3.1.6.B. when used in the locations shown in the Table.

(3) The temperature rise limits and glass area limits required in Sentences (1) and (2) are waived for **closures** between an **exit** enclosure and an enclosed vestibule or corridor provided

- (a) the vestibule or corridor is separated from the remainder of the **floor area** by a **fire separation** having a **fire-resistance rating** of at least $\frac{3}{4}$ h,
- (b) the separation in Clause (a) contains no wired glass or glass block within 3 m of the **closure** into the **exit** enclosure, and
- (c) the vestibule or corridor contains no **occupancy**.

APPENDIX A

TABLE 3.1.6.B.
Forming Part of Sentences 3.1.6.11.(1) and (2)

Location	Minimum Required Fire-Protection Rating of Door, h	Maximum Temperature Rise on Unexposed Side of Door, °C	Maximum Area of Wired Glass in Door, cm ²	Maximum Aggregate Area of Wired Glass Panels and Glass Block not in Door, cm ²
Between a dead-end corridor and an adjacent occupancy where the corridor provides the only access to exit and is required to have a fire-resistance rating	Less than 3/4	No limit	No limit	No limit
Between an exit enclosure and the remainder of the floor area in buildings not more than 3 storeys in building height	All ratings	No limit	8000	8000
Between an exit enclosure and the remainder of the floor area except as permitted above	3/4 1 1/2 2	250 after 1/2 h 250 after 1 h 250 after 1 h	645 645 645	645 645 645
In a firewall	1 1/2 3	250 after 1/2 h 250 after 1 h	645 0	0 0
Column 1	2	3	4	5

3.1.7.1.(1) Piping, tubing, ducts, **chimneys**, wiring, conduit, electrical outlet boxes and other similar service equipment that penetrate a **fire separation** or a membrane forming part of an assembly required to have a **fire-resistance rating** shall be

- (a) tightly fitted, or
- (b) sealed at the penetration with fire stop materials conforming to Sentence (2).

(2) Fire stop materials in Sentence (1) shall consist of material that will remain in place and prevent the passage of flame when subjected to the standard fire exposure in CAN4-S101, "Standard Methods of Fire Endurance Tests of Building Construction and Materials", for a period of time equal to the **fire-protection rating** required for the grade of **fire separation** in Table 3.1.6.A.

3.1.7.2.(1) Except as provided in Sentences (2) to (6) and Articles 3.1.4.5 and 3.1.7.3., pipes, ducts, electrical outlet boxes, electrical conduits or other similar service equipment that partly or wholly penetrate an assembly required to have a **fire-resistance rating** shall be **noncombustible** unless the assembly has been tested incorporating such equipment.

(2) Electrical or similar wiring enclosed in **noncombustible** conduit may partly or wholly penetrate an assembly required to have a **fire-resistance rating** without being incorporated in the assembly at the time of testing as required in Sentence (1).

(3) Wiring, including single wires or groups of wires, with **combustible** insulation or jacketing that is not enclosed in **noncombustible** conduit may partly or wholly penetrate a vertical assembly required to have a **fire-resistance rating** without being incorporated in the assembly at the time of testing as required in Sentence (1) provided the wiring does not exceed 25 mm in overall diameter.

(4) **Combustible** conduit which is embedded in a concrete floor slab is permitted in an assembly required to have a **fire-resistance rating** without being incorporated in the assembly at the time of testing as required in

Sentence (1) where the concrete provides at least 50 mm of cover between the conduit and the bottom of the slab.

(5) **Combustible** outlet boxes are permitted in an assembly required to have a **fire-resistance rating** without being incorporated in the assembly at the time of testing as required in Sentence (1) provided the opening through the membrane into the box does not exceed 160 cm².

(6) Outlet boxes that penetrate opposite sides of a wall assembly shall be offset where necessary to maintain the integrity of the **fire separation**.

3.1.7.3.(1) Except as permitted in Sentences (2) to (5) and Article 3.1.4.5., **combustible** piping shall not be used where any part of the piping system partly or wholly penetrates a **fire separation** required to have a **fire-resistance rating** or penetrates a membrane that forms part of an assembly required to have a **fire-resistance rating**.

(2) **Combustible** piping is permitted to penetrate a **fire separation** required to have a **fire-resistance rating** or a membrane that forms part of an assembly required to have a **fire-resistance rating** provided

- (a) the rated assembly incorporating the penetration will resist the passage of flames when subjected to the standard heat exposure criteria in CAN4-S101, "Standard Methods of Fire Endurance Tests of Building Construction and Materials", at a pressure on the exposed side at least 50 Pa (gauge) greater than on the unexposed side, and
- (b) the piping is not located in a vertical shaft.

(3) **Combustible** drain piping is permitted to penetrate a horizontal **fire separation** provided it leads directly from a **noncombustible** floor-mounted water closet through a concrete floor slab.

(4) **Combustible** piping need not conform to Sentence (1) provided the **combustible** piping is located only on one side of a vertical **fire separation** and is not located in a vertical shaft.

(5) **Combustible** piping need not conform to Sentence (1) where the **combustible** piping penetrates a vertical or horizontal **fire separation** and the **fire compartments** on each side of the **fire separation** are **sprinklered**.

3.1.7.4.(1) A membrane ceiling forming part of an assembly assigned a **fire-resistance rating** on the basis of Chapter 2, "Fire Performance Rating" of the Supplement to the NBC 1985 may be pierced by openings leading to ducts within the ceiling space provided such ducts are **noncombustible** and provided

- (a) a single opening does not exceed 930 cm² in area,
- (b) the aggregate area of all openings does not exceed 1 percent of the ceiling area of the **fire compartment**,
- (c) the openings are located at least 2 m apart,
- (d) where an opening exceeds 130 cm² in area, it is protected by a **fire stop flap** conforming to Chapter 2, "Fire Performance Ratings" of the Supplement to the NBC 1985, and
- (e) asbestos paper is not exposed in supply and return air systems.

(2) A ceiling assembly used as a **plenum** shall conform to Article 3.5.4.3.

(3) Where a fire-resistive floor and ceiling or roof and ceiling assembly is tested in accordance with Article 3.1.5.1., asbestos paper shall not be exposed in supply and return air systems incorporated in the tested assembly.

3.1.9.3.(1) Every unsprinklered concealed space within a ceiling or roof assembly of **combustible construction**, including attic spaces, shall be separated by construction conforming to Article 3.1.9.4. into compartments not exceeding

- (a) 600 m² in area with no dimension greater than 60 m where the exposed construction materials within the space have a **flame-spread rating** of 25 or less, and

APPENDIX A

- (b) 300 m² in area with no dimension greater than 20 m where the exposed construction materials within the space have a **flame-spread rating** greater than 25.

(2) Every unsprinklered crawl space not considered as a **basement** in Article 3.2.2.3. shall be separated by construction conforming to Article 3.1.9.4. into compartments not exceeding 600 m² in area with no dimension greater than 30 m.

(3) Every concealed space in exterior cornices, mansard style roofs, balconies and canopies in which the exposed construction materials within the space have a **flame-spread rating** exceeding 25 shall be separated by construction conforming to Article 3.1.9.4.

- (a) at the points where such concealed spaces extend across the ends of required vertical **fire separations**, and
- (b) so that the maximum dimension in any concealed space does not exceed 20 m.

3.1.9.4.(1) Except as provided in Sentences (2) to (4), materials used to separate concealed spaces into compartments shall remain in place and prevent the passage of flames for a period of at least 15 min when subjected to the standard fire exposure in CAN4-S101, "Standard Methods of Fire Endurance Tests of Building Construction and Materials".

(2) Gypsum wallboard at least 12.7 mm thick and sheet steel at least 0.38 mm thick need not be tested in conformance with Sentence (1) provided all joints have continuous support.

(3) In **buildings** required to be of **noncombustible construction**, wood furring strips described in Subclause 3.1.4.5.(2)(a)(iv) need not be tested in conformance with Sentence (1).

(4) In **buildings** permitted to be of **combustible construction**, materials used to separate concealed spaces into compartments may be

- (a) solid lumber not less than 38 mm thick,
- (b) phenolic bonded plywood not less than 12.5 mm thick or waferboard not less than 12.7 mm thick with joints supported, or
- (c) 2 thicknesses of lumber each not less than 19 mm thick with joints staggered, where the width or height of the concealed space is such that more than 1 piece of 38 mm thick lumber is necessary to block off the space.

(5) Openings through materials in Sentences (1) to (4) shall be protected to maintain the integrity of the construction.

(6) Where materials in Sentences (1) to (4) are penetrated by construction elements or by service equipment, fire stop materials shall be used to seal the penetration.

3.1.11.1.(1) Interior finish material shall include any material that forms part of the interior surface of a floor, wall, **partition** or ceiling, such as

- (a) interior cladding of plaster, wood or tile,
- (b) surfacing of fabric, paint, plastic, veneer or wallpaper,
- (c) doors, windows and trim,
- (d) lighting elements such as light diffusers and lenses forming part of the finished surface of the ceiling, and
- (e) carpet material that overlies a floor, when such floor is not intended as the finished floor.

3.1.11.2.(1) Except as otherwise provided in this Subsection, the **flame-spread rating** of interior wall and ceiling finishes, including glazing and skylights, shall be not more than 150 and shall conform to Table 3.1.11.A.

TABLE 3.1.11.A
Forming Part of Sentence 3.1.11.2.(1)

Occupancy, Location or Element	Maximum Flame-Spread Rating for Walls and Ceilings	
	Sprinklered	Unsprinklered
Group A, Division 1 occupancies , including doors, skylights, glazing and light diffusers and lenses	150	75
Group B occupancies	150	75
Exits ⁽¹⁾	25	25
Lobbies described in Sentence 3.4.4.1.(7)	25	25
Covered vehicular passageways, except for roof assemblies of heavy timber construction in such passageways	25	25
Vertical service spaces	25	25
Column 1	2	3

Note to Table 3.1.11.A.:

⁽¹⁾ See Articles 3.1.11.7. and 3.4.7.11.

(2) Doors, other than those in Group A, Division 1 **occupancies**, need not conform to Sentence (1).

(3) RESERVED.

(4) Where a wall or ceiling finish is required to have a **flame-spread rating** of less than 150 in Sentence (1), up to 10 percent of the total wall area and 10 percent of the total ceiling area is permitted to have a **flame-spread rating** of not more than 150, except that up to 25 percent of the total wall area of lobbies described in Sentence 3.4.4.1.(7) is permitted to have a **flame-spread rating** of not more than 150.

(5) Except in the case of Group A, Division 1 **occupancies**, **combustible** doors, skylights, glazing and light diffusers and lenses shall not be considered in the calculation of wall and ceiling areas in Sentence (4).

3.1.11.3.(1) The **flame-spread rating** of interior wall and ceiling finishes for bathrooms within **suites** of Group C **occupancy** shall be not more than 200.

(2) The **flame-spread rating** of **combustible** light diffusers and lenses in all **occupancies** other than Group A, Division 1 **occupancies** may exceed the **flame-spread rating** limits required elsewhere in this Subsection provided

- (a) they have a **flame-spread rating** of not more than 250 and a smoke developed classification of not more than 600 when tested in conformance with CAN4-S102.2, "Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering, and Miscellaneous Materials and Assemblies",
- (b) they fall to the bottom of the test apparatus before igniting when tested in conformance with ULC-S102.3, "Standard Method of Fire Test of Light Diffusers and Lenses",
- (c) they are not prevented from falling from the ceiling by construction located beneath the elements, and
- (d) they are not use in corridors that are required to be separated from the remainder of the **building** by a **fire separation** or in **exit** shafts unless individual diffusers or lenses do not exceed 1 m² in area and are at least 1.2 m apart.

3.1.11.4. Individual **combustible** skylights in corridors that are required to be separated from the remainder of the **building** by a **fire separation** shall not exceed 1 m² in area and shall be at least 1.2 m apart.

APPENDIX A

3.1.11.5.(1) Except where the **building** is **sprinklered**, the interior wall finish of **public corridors**, corridors used by the public in **assembly** and **institutional occupancies** and corridors serving classrooms or patients' bedrooms, including **occupancies** in such corridors, shall have a maximum **flame-spread rating** of not more than

- (a) 75, or
- (b) 25 on the upper half of the wall and 150 on the lower half of the wall.

(2) Except where the **building** is **sprinklered**, the interior ceiling finish of corridors and **occupancies** in Sentence (1) shall have a **flame-spread rating** of not more than 25.

3.1.11.6.(1) Except as permitted in Sentences (2) and (3), and except for combustible plumbing fixtures including wall and ceiling enclosures and for light diffusers and lenses conforming to Sentence 3.1.11.3.(2), the interior wall, ceiling and floor finishes in a **building** regulated by the provisions of Subsection 3.2.6. shall conform to the **flame-spread rating** requirements in Article 3.1.11.2. and to the **flame-spread rating** and smoke developed classification values in Table 3.1.11.B.

(2) Except for **buildings** of Group B **major occupancy** and elevator cars, the **flame-spread rating** and smoke developed classification of interior wall and ceiling finishes need not conform to the values in Table 3.1.11.B. provided the **building** is **sprinklered** and the sprinkler system is electrically supervised in conformance with Sentence 3.2.6.2.(6).

(3) Trim, millwork and doors in **exit** stairways, vestibules to **exit** stairs, lobbies described in Sentence 3.4.4.1.(7) and corridors not within **suites** need not conform to the **flame-spread rating** classification requirements in Sentence (1) provided

- (a) they have a **flame-spread rating** of not more than 150 and a smoke developed classification of not more than 300, and
- (b) their aggregate area does not exceed 10 percent of the area of the wall or ceiling on which they occur.

TABLE 3.1.11.B.

Forming Part of Sentences 3.1.11.6.(1) and (2)

Location or Element	Maximum Flame-Spread Rating		
	Wall Surface	Ceiling Surface ⁽¹⁾	Floor Surface
Exit Stairways, vestibules to exit stairs and lobbies described in Sentence 3.4.4.1.(7)	25	25	25
Corridors not within suites	-	-	300
Elevator cars and vestibules	25	25	300
Service spaces and service rooms	25	25	25
Other locations and elements	-	-	No limit
Column 1	2	3	4

Note to Table 3.1.11.B.:

⁽¹⁾ See Sentence 3.1.11.3.(2) for lighting elements.

The smoke developed classification requirements have been omitted from the Table as these are not relevant to the Fire Code reference.

3.1.11.7.(1) In **buildings** required to be of **noncombustible construction**,

- (a) the **flame-spread ratings** in Article 3.1.4.5. shall apply in addition to the requirements in this Subsection, and

- (b) the **flame-spread ratings** for **exits** in this Subsection shall also apply to any surface in the **exit** that would be exposed by cutting through the material in any direction, except that this requirement does not apply to doors, **heavy timber construction** in **sprinklered buildings** and **fire-retardant treated wood**.

3.1.11.8. Except for paint, the interior wall and ceiling finishes of an underground **walkway** shall be of **noncombustible** materials.

EXTRACTS FROM SECTION 3.2

3.2.2.3. *This Article indicates that a crawl space is considered a basement where it exceeds 1.8 m in height between the lowest part of the floor assembly and the ground or other surface below, or if it is used for any occupancy, used for the passage of flue pipe, or used as a plenum in a building of combustible construction.*

3.2.2.9. to 3.2.2.53. *These Articles deal with requirements for building size and construction relative to occupancy.*

3.2.4.1.(1) Except as provided in Sentences (2) and (3), a fire alarm system shall be installed when the **occupant load** in Table 3.2.4.A. for any **major occupancy** is exceeded, and in **buildings** containing

- (a) more than 3 **storeys**, including **storeys** below **grade**,
- (b) a total **occupant load** greater than 300, other than in open air seating areas, or
- (c) an **occupant load** greater than 150 above or below the **first storey**, other than in open air seating areas.

(2) A fire alarm system is not required in apartment **buildings** where not more than 4 **dwelling units** share a common **means of egress**, or in **buildings** 3 **storeys** or less in **building height** where each **dwelling unit** is served by an exterior **exit** facility leading to ground level.

(3) A fire alarm system is not required in hotels or motels 3 **storeys** or less in **building height** where each **suite** is served by an exterior **exit** facility leading to ground level.

TABLE 3.2.4.A.

Forming Part of Sentence 3.2.4.1.(1)

Major Occupancy Classification	Occupant Load Above which a Fire Alarm System is Required
Group A, Division 2 (licensed restaurants and beverage establishments only)	150
Group A, Division 2 (schools and colleges only)	40
Group A, Division 4	300 below the seating area
Group B, Division 1 and 2	10 detained or receiving care or treatment
Group C	10 having sleeping accommodation
Group F, Division 1	25
Group F, Division 2 and 3	75 above and below the first storey
Column 1	2

APPENDIX A

3.2.4.2.(1) Where there are openings through a **firewall**, other than those for piping, tubing, wiring and conduit, the requirements in this Subsection shall apply to the **floor areas** on both sides of the **firewall** as if they were in the same **building**.

(2) Except as provided in Sentence (4) where a **building** contains more than 1 **major occupancy** and a fire alarm system is required, a single system shall serve all **occupancies**.

(3) Except as provided in Sentence (4), where a fire alarm system is required in any portion of a **building**, it shall be installed throughout the **building**.

(4) Except as provided in Sentence (5), in a **building** not exceeding 3 **storeys** in **building height**, where a vertical **fire separation** having a **fire-resistance rating** of at least 1 h separates a portion of the **building** from the remainder of the **building** and there are no openings through the **fire separation**, other than those for piping, tubing, wiring and conduit, the requirements in this Subsection may be applied to each portion so separated as if it were a separate **building**.

(5) The permission in Sentence (4) to consider separated portions of a **building** as separate **buildings** does not apply to **service rooms** and storage rooms.

3.2.4.3.(1) Fire alarm systems shall be

- (a) single stage systems in Group F, Division 1 **occupancies**,
- (b) 2 stage systems in Group B **occupancies** other than those described in Clause (c),
- (c) single or 2 stage systems in **buildings 3 storeys** or less in **building height** used for children's custodial homes, convalescent homes or orphanages, and
- (d) single or 2 stage systems in all other cases.

3.2.4.4.(1) A single stage fire alarm system shall, upon the operation of any manually actuated signalling box or **fire detector**, cause an **alarm signal** to sound on all audible signal appliances in the system.

(2) A 2 stage fire alarm system shall

- (a) cause an **alert signal** to sound upon the operation of any manually actuated signalling box or **fire detector**,
- (b) except for Group B, Division 2 **major occupancies**, automatically cause an **alarm signal** to sound if the **alert signal** is not acknowledged within 5 min of its initiation, and
- (c) have each manually actuated signalling box equipped so that the use of a key or other similar device causes an **alarm signal** to sound and continue to sound upon the removal of the key or similar device from the manually actuated signalling box.

(3) Fire alarm systems in Sentences (1) and (2) may be zone coded so that, upon the operation of any manually actuated signalling box or **fire detector**,

- (a) a coded **alarm signal** is sounded for a single stage system or a coded **alert signal** is sounded for a 2 stage system indicating the zone of alarm initiation,
- (b) the coded **alert signal** or **alarm signal** is repeated in its entirety at least 4 times, and
- (c) a continuous **alert signal** or **alarm signal** is sounded upon completion of the coded signals in Clause (b) and Sentence (4).

(4) When a second manually actuated signalling box or **fire detector** is operated in a system in Sentence (3), in a zone other than that for which the first **alert signal** or **alarm signal** was sounded, the coded **alert signal** or **alarm signal** for the first zone shall be completed before the coded **alert signal** or **alarm signal** for the second zone is repeated at least 4 times.

3.2.4.5.(1) Fire alarm and voice communication systems shall be installed in conformance with CAN4-S524, "Standard for the Installation of Fire Alarm Systems".

(2) Fire alarm systems shall be tested to ensure satisfactory operation in conformance with CAN4-S537, “Standard for the Verification of Fire Alarm System Installations”.

3.2.4.6.(1) Required fire alarm systems shall be designed so that when an **alarm signal** is activated, it cannot be silenced automatically for at least

- (a) 5 min for **buildings** not required to be equipped with an annunciator, and
- (b) 20 min for all other **buildings**.

(2) Except where a silencing switch is needed to allow for voice communication capability in accordance with Sentences 3.2.4.16.(2) and (3), a required fire alarm system shall not incorporate manual silencing switches other than those installed inside the fire alarm control unit.

3.2.4.7.(1) Where a fire alarm system is required to be installed, and a single stage system is provided, the system shall be designed to notify the fire department in conformance with Sentence (3) that an **alarm signal** has been initiated in

- (a) Group A **occupancies** having an **occupant load** of more than 300,
- (b) Group B **occupancies**,
- (c) Group F, Division 1 **occupancies**, or
- (d) **buildings** regulated by the provisions of Subsection 3.2.6.

(2) Where a fire alarm system is required to be installed and a 2 stage system is provided, the system shall be designed to notify the fire department in conformance with Sentence (3) that an **alert signal** has been initiated.

(3) Except as permitted in Sentence (4), signals to the fire department shall be by way of

- (a) the municipal fire alarm system,
- (b) an independent central station conforming to NFPA-71, “Installation, Maintenance, and Use of Central Station Signaling Systems”, or
- (c) a proprietary control centre conforming to NFPA-72D, “Installation, Maintenance, and Use of Proprietary Protective Signaling Systems”.

(4) When the facilities in Sentence (3) are not available in the municipality in which the **building** is to be built, an independent system may be used to transmit signals to the fire department.

(5) Where a required fire alarm system has been installed with no provisions to transmit a signal to the fire department as indicated in Sentences (2), (3) and (4), a legible, permanently-mounted notice shall be posted at each manually actuated signalling box requesting that the fire department be notified and including the telephone number of that department.

3.2.4.8.(1) Except as permitted in Sentences (2), (3) and (4), an annunciator shall be installed inside the **building** on the **street** entrance floor in a location that is readily accessible to fire fighters entering the **building** with separate zone indicators for the activation of the alarm initiating devices

- (a) in each **floor area** so that the area of coverage for each zone does not exceed 2000 m²,
- (b) in each **fire compartment** required to be separated by vertical **fire separations** having a **fire-resistance rating** of at least 2 h, other than **dwelling units** described in Subsection 3.3.4.,
- (c) in each shaft required to be equipped with **fire detectors**,
- (d) in each air handling system required to be equipped with **smoke detectors**, and
- (e) required in Articles 3.3.3.5. and 3.3.3.6.

(2) An annunciator need not be provided for a fire alarm system when not more than 1 zone indicator is required in Sentence (1).

(3) A **building** that is not more than 3 **storeys** in **building height** and that has an aggregate area of all **storeys**, including **basements**, of not more than 2000 m², need not conform to Sentence (1).

APPENDIX A

(4) Where a sprinkler system is used in lieu of **heat detectors** in conformance with Article 3.2.4.11., the requirements for zone indication in Clauses (1)(a) and (b) are waived provided the activation of the alarm initiating devices is indicated on the annunciator in conformance with the zone indication requirements for the sprinkler system.

(5) Electrical supervision shall be provided for required fire alarm systems.

3.2.4.9.(1) An emergency power supply conforming to Sentences (2), (3) and (4) shall be provided for required fire alarm systems.

(2) The emergency power supply in Sentence (1) shall be from

- (a) a generator conforming to Article 3.2.7.4.,
- (b) batteries, or
- (c) a combination thereof.

(3) The emergency power supply in Sentence (1) shall be capable of providing supervisory power at least 24 h and emergency power under full load for at least

- (a) 2 h for **buildings** required to conform to Subsection 3.2.6.
- (b) 1 h for **buildings** classified as Group B **major occupancy** that are not within the scope of Subsection 3.2.6.,
- (c) 5 min for **buildings** not required to be equipped with an annunciator, and
- (d) ½ h for all other **buildings**.

(4) The emergency power supply in Sentence (1) shall be designed so that there will be automatic transfer to emergency power in the event of a failure of the normal power source.

3.2.4.10.(1) **Fire detectors** required in this Article shall be connected to the fire alarm system.

(2) Except as provided in Article 3.2.4.11., where a fire alarm system is required, **fire detectors** shall be installed in

- (a) storage rooms not within **dwelling units**,
- (b) **service rooms** not within **dwelling units**,
- (c) janitors' closets,
- (d) elevator and dumbwaiter shafts, and
- (e) rooms where hazardous products are to be used or stored.

(3) Except as provided in Article 3.2.4.11., where a fire alarm system is required, **heat detectors** shall be installed

- (a) in every room in **buildings** classified as Group A Division 1 or Group B **major occupancy** other than sleeping rooms, and
- (b) in every **suite** and room not located within a **suite** in **buildings** classified as Group C **major occupancy** and exceeding 3 **storeys** in **building height**.

(4) Where a fire alarm system is required, **smoke detectors** shall be installed in

- (a) every sleeping room and corridor in portions of **buildings** classified as Group B **major occupancy**,
- (b) every corridor in portions of **buildings** classified as Group A, Division 1 **major occupancy**,
- (c) every **public corridor** in portions of **buildings** classified as Group C **major occupancy**, and
- (d) every **exit** stair shaft.

(5) Where a fire alarm system is required, every recirculating air handling system shall be designed to prevent the circulation of smoke upon a signal from a duct-type **smoke detector** where the air handling system

- (a) serves more than 1 **storey**,
- (b) serves more than 1 **suite** in a **storey**,
- (c) serves more than 1 zone required in Sentence 3.3.3.5.(6), or
- (d) serves more than 1 **fire compartment** required in Sentence 3.3.3.6.(2).

3.2.4.11.(1) **Heat detectors** in Article 3.2.4.10. need not be provided where an automatic sprinkler system conforming to Sentences (2) to (5) and Article 3.2.5.5. is installed throughout the **floor area**.

(2) Sprinkler systems in Sentence (1) shall be equipped with waterflow detecting devices so that each device serves an area on each **storey** that does not exceed the system area limits as specified in NFPA 13, “Installation of Sprinkler Systems”.

(3) Waterflow detecting devices in Sentence (2) shall be connected to initiate an **alert signal** or an **alarm signal** on the fire alarm system.

(4) The activation of each waterflow detecting device in Sentence (2) shall be indicated separately on the fire alarm system annunciator.

(5) The sprinkler system in Sentence (1) shall be electrically supervised to indicate a trouble signal on the **building** fire alarm system annunciator for each of the following:

- (a) movement of a control valve handle,
- (b) loss of excess water pressure required to prevent false alarms in a wet pipe system,
- (c) loss of air pressure in a dry pipe system,
- (d) loss of air pressure in a pressure tank,
- (e) a significant change in water level in any water storage container used for fire fighting purposes,
- (f) loss of electrical power to any automatically starting electrical fire pump, and
- (g) a temperature approaching the freezing point in any dry pipe valve enclosure or water storage container used for fire fighting purposes.

3.2.4.12. A manually actuated signalling box shall be installed in every **floor area** near every required **exit**.

3.2.4.13.(1) **Alert signals** and **alarm signals** shall be readily distinguishable from each other and from other signals which may be sounded in the **building**.

(2) In a 2 stage fire alarm system described in Sentence 3.2.4.4.(2), the same audible signal appliances may be used to sound the **alert signals** and the **alarm signals**.

(3) If audible signal appliances with voice reproduction capabilities are intended for uses other than fire emergencies, they shall be installed so that **alert signals** and **alarm signals** take priority over all other signals.

(4) In a **building** or portion thereof intended for use primarily by persons with hearing impairments, visual signal appliances shall be installed in addition to audible signal appliances.

3.2.4.14.(1) Audible signal appliances forming part of a required fire alarm system shall be installed in a **building** so that **alert signals**, **alarm signals** and voice messages can be heard intelligibly throughout the **floor area** in which they are installed.

(2) Visual signal appliances required in Sentence 3.2.4.13.(4) shall be installed in a **building** so that the signal from at least 1 appliance is visible throughout the **floor area** or portion thereof in which they are installed.

3.2.4.15.(1) **Smoke alarms** conforming to ULC-S531, “Standard for Smoke Alarms” shall be installed in each **dwelling unit** and, except for **institutional occupancies** required to have a fire alarm system, in each sleeping room not within a **dwelling unit**.

(2) **Smoke alarms** within **dwelling units** shall be installed between each sleeping area and the remainder of the **dwelling unit**, and where the sleeping rooms are served by hallways, the **smoke alarms** shall be installed in the hallways.

(3) **Smoke alarms** shall be installed on the ceiling or on the walls between 150 mm and 300 mm below the ceiling in conformance with manufacturer’s installation instructions.

(4) **Smoke alarms** shall be installed with permanent connections to an electrical circuit and shall have no disconnect switches between the overcurrent device and the **smoke alarm**.

(5) Where more than 1 **smoke alarm** is required in a **dwelling unit**, they shall be wired so that the activation of 1 alarm will cause all alarms within the **dwelling unit** to sound.

3.2.4.16.(1) A voice communication system required in Subsection 3.2.6. (*see Article 3.2.6.8.*) shall consist of

- (a) a 2-way communication system in each **floor area**, with connections to the central alarm and control facility and to the mechanical control centre, and
- (b) audible signal appliances with voice reproduction capabilities operated from the central alarm and control facility which are designed and located so as to be heard in all parts of the **building**, except that this requirement does not apply to elevator cars.

(2) The voice communication system in Sentence (1) shall include provision for silencing the **alarm signal** in a single stage fire alarm system when voice messages are being transmitted, but only after the **alarm signal** has sounded initially for at least

- (a) 30 s in Group B, Division 2 **major occupancies**, and
- (b) 1 min in all other **occupancies**.

(3) The voice communication system in Sentence (1) shall include provision for silencing the **alert signal** and the **alarm signal** in a 2 stage fire alarm system when voice messages are being transmitted, but only after the **alert signal** has sounded initially for at least

- (a) 30 s in Group B, Division 2 **major occupancies**, and
- (b) 1 min in all other **occupancies**.

(4) The voice communication system in Clause (1)(b) shall be designed so that voice instructions can be transmitted selectively to any zone or zones while maintaining an **alert signal** or **alarm signal** to the other zones in the **building**.

(5) The 2-way communication system in Clause (1)(a) shall be installed so that emergency telephones are located in each **floor area** near **exit** stair shafts.

3.2.5.1. *The intent of this reference is that where required for buildings constructed to the Building Code*

- *direct access for fire fighting shall be provided from the outdoors to every storey (except for storeys below the first storey) having its floor level less than 25 m above grade, by not less than one unobstructed window or access panel for each 15 m of wall in each wall required to face a street, and*
- *direct access from not less than one street shall be provided from the outdoors to each basement having a horizontal dimension more than 25 m.*

The above does not apply to any storey that is sprinklered.

3.2.5.2.(1) Every **building** which exceeds 3 **storeys** in **building height** or 600 m² in **building area** shall be provided with access routes for fire department vehicles to

- (a) the **building** face having a principal entrance, and
- (b) each **building** face having access openings for fire fighting as required in Article 3.2.5.1.

(2) The access routes in Sentence (1) shall be located so that the principal entrance and every access opening in Clause (1)(b) are located not less than 3 m and not more than 15 m from the closest portion of the access route required for fire department use, measured horizontally from the face of the **building**.

(3) Access routes shall be provided to every **building** so that

- (a) for **buildings** provided with a fire department connection, a fire department pumper vehicle can be located adjacent to the hydrants described in Sentences 3.2.5.4.(40) and 3.2.5.5.(4),

- (b) for **buildings** not provided with a fire department connection, a fire department pumper vehicle can be located so that the length of the access route from a hydrant to the vehicle plus the unobstructed path of travel for the fire fighter from the vehicle to the **building** is not more than 90 m, and
- (c) the unobstructed path of travel for the fire fighter from the vehicle to the **building** is not more than 45 m.

(4) The unobstructed paths of travel for the fire fighter in Sentence (3) from the vehicle to the **building** shall be measured from the vehicle to the fire department connection provided for the **building**, except that where no such connection is provided, the paths of travel shall be measured to the principal entrance of the **building**.

(5) Where a portion of a **building** is completely cut off from the remainder of the **building** so that there is no access to the remainder of the **building**, the access routes in Sentence (3) shall be located so that the unobstructed path of travel from the vehicle to one entrance of each such portion is not more than 45 m.

(6) Where a required access route is provided by means of a roadway or yard, the design and location of that portion of the roadway or yard required for fire department use shall

- (a) have a clear width of at least 6 m, unless it can be shown that lesser widths are satisfactory,
- (b) have a centreline radius of not less than 12 m,
- (c) have an overhead clearance of at least 5 m,
- (d) have a change of gradient of not more than 1 in 12.5 over a minimum distance of 15 m,
- (e) be designed to support the expected loads imposed by fire fighting equipment and be surfaced with concrete, asphalt or other material designed to permit accessibility under all climatic conditions,
- (f) have turnaround facilities for any dead-end portion of the access route exceeding 90 m, and
- (g) be connected with a public thoroughfare.

3.2.5.4.(14) Couplings for fire hose or other fittings used in connection with such couplings shall conform to ULC S513, "Standard for Threaded Couplings for 1 ½ and 2 ½ Inch Fire Hose", or ULC S543, "Standard for Internal Lug Quick Connect Couplings for Fire Hose".

(37) All valves controlling water supplies in a standpipe and hose system, except for hose valves, shall be equipped with an electrically supervised switch for transmitting a signal to an annunciator panel in the event of movement of the valve handle.

(39) A standpipe system shall be served by at least one fire department siamese connection.

(40) Fire department siamese connections for standpipe and hose systems shall be located so that the distance from a fire department connection to a hydrant does not exceed 45 m and is unobstructed.

(41) Every fire department siamese connection shall be

- (a) located on the outside of a **building** adjacent to a **street** or an access route, at least 300 mm and not more than 900 mm above ground level,
- (b) provided with two 65 mm hose connections with female swivel hose couplings having hose threads conforming to the requirements of Sentence (14), and
- (c) provided with sufficient clearance around the couplings to use a standard 14 in. fire department hose spanner for tightening.

(42) Check valves shall be provided in every fire department hose connection except that a two-way hose connection may be provided with a single check valve arranged to shut one outlet when the other is in use.

(43) Shut-off valves shall not be installed in the fire department connection.

(44) An automatic drain valve shall be provided in the fire department connection at its lowest point, between the hose connections and the check valve.

(45) The fire department connection shall be provided with a sign having raised letters at least 25 mm in size, cast in a metal plate or fitting, clearly indicating its intended service and size.

APPENDIX A

(46) Every fire department connection shall be equipped with a cap or plug to protect the threads and to exclude foreign matter.

3.2.5.5.(1) Except as provided in Sentences (2) to (6), where a sprinkler system is required, it shall be designed, constructed, installed and tested in conformance with NFPA 13, "Installation of Sprinkler Systems".

(2) RESERVED.

(3) Where a water supply serves both a sprinkler system and a system serving other equipment, control valves shall be provided so that either system can be shut off independently.

(4) Fire department connections for sprinkler systems shall conform to the requirements for fire department connections for standpipe systems contained in Sentences 3.2.5.4.(39) to (46).

(5) Where a room, chute or bin is required to be **sprinklered** as indicated in Sentence 3.3.4.2.(3), Article 3.5.2.6. and Sentence 3.5.3.2.(6), the sprinklers may be supplied with water from the fire standpipe system provided that

- (a) except for a chute, not more than eight sprinkler heads are required to protect any room or bin based on a maximum coverage of 12 m² per sprinkler head,
- (b) the standpipe riser is
 - (i) not less than 6 in. in diameter, or
 - (ii) hydraulically designed to meet combined water supply as specified in Clause (c),
- (c) the water supply for a standpipe system, pumping capability and water storage facility, if required, is increased to supply 95 L/min for each sprinkler head over and above the requirements for the standpipe system up to maximum 760 L/min for sprinklers,
- (d) a waterflow detecting device shall be installed in the sprinkler main adjacent to the point of connection to the standpipe riser, and
- (e) the activation of each waterflow detecting device in Clause (d) shall be indicated separately on the fire alarm system annunciator.

(6) Where a sprinkler system with one or more electrically supervised control valves in order to meet the requirements of this Article, such valves shall be supervised in accordance with Sentence 3.2.5.4.(37) and the same annunciator panel may be utilized for supervision of valves in both the standpipe and sprinkler systems.

(7) Open grid and translucent ceilings located below sprinkler systems shall be installed in conformance with NFPA 13, "Installation of Sprinkler Systems", paragraphs 4-4.15 and 4-4.16.

3.2.6. *This Section contains additional requirements for high buildings which is not all relevant to the Fire Code reference. Information detailing which buildings are classified as high buildings is relevant though and is provided in Sentence 3.2.6.1.(1).*

3.2.6.1.(1) This Subsection applies to

- (a) every **building** of Group A, D, E or F **major occupancy** classification that is more than
 - (i) 36 m in height, measured between **grade** and the floor level of the top **storey**, or
 - (ii) 18 m in height, measured between **grade** and the floor level of the top **storey**, and in which the cumulative or total **occupant load** on or above any storey above grade, other than the **first storey**, divided by the number of 550 mm units of **exit** width in all **exit** stairs at that **storey**, exceeds 300 persons,
- (b) every **building** containing a Group B **major occupancy** in which the floor level of the highest **storey** of such **major occupancy** is more than 18 m above **grade** or every **building** containing a **floor area** or part of a **floor area** located above the third **storey** designed or intended as a Group B **occupancy** for patients in bed or infirm persons, and
- (c) every **building** containing a Group C **major occupancy** whose floor level is more than 18 m above **grade**.

3.2.6.2.(6) *This Sentence requires that the sprinkler system water flow and supervisory signals in high buildings be transmitted automatically to the on-site central alarm and control facility and to the fire department or a central station.*

3.2.6.3.(1) Manual emergency recall operation shall be provided for all elevators serving **storeys** above the **first storey**.

(2) Key-operated switches for emergency recall operation in Sentence (1) shall be provided in a conspicuous location at each elevator lobby on the recall level, and at the central alarm and control facility required in Article 3.2.6.7.

(3) In-car emergency service switches shall be provided in all elevator cars.

(4) Automatic emergency recall operation shall be provided for all elevators serving **storeys** above the **first storey** in unsprinklered **buildings**.

(5) The automatic emergency recall feature in Sentence (4) shall be activated by

- (a) **smoke detectors** installed in each elevator lobby on each **storey**, or
- (b) the **building** fire alarm system.

(6) **Smoke detectors** in Sentence (5) shall be designed as part of the **building** fire alarm system.

3.2.6.7.(1) A central alarm and control facility shall be provided on the **street** entrance floor that

- (a) is in a location that is readily accessible to fire fighters entering the **building**, and
- (b) takes into account the effect of background noise likely to occur under fire emergency conditions, so that the facility can properly perform its required function under such condition.

(2) The central alarm and control facility shall include

- (a) means to control the voice communication system required by Article 3.2.6.8., and provisions to enable messages to be sent to all loudspeakers simultaneously and to individual **floor areas** and **exit stairwells**,
- (b) means to indicate audibly and visually **alert signals** and **alarm signals** and a switch to
 - (i) silence the audible portion of these signals, and
 - (ii) indicate visually that the audible portion has been silenced,
- (c) means to indicate visually that elevators are on emergency recall operation,
- (d) an annunciator conforming to Article 3.2.4.8.,
- (e) means to transmit **alert signals** and **alarm signals** to the fire department in conformance with Article 3.2.4.7.,
- (f) means to release hold-open devices on doors to vestibules,
- (g) means to manually actuate **alarm signals** in the **building** and to silence these signals in conformance with Sentences 3.2.4.16.(2) and (3), and
- (h) means to actuate auxiliary equipment or means to communicate with a continually manned auxiliary equipment control centre, as appropriate to the measure for fire safety provided in the **building**.

3.2.6.8. When the height of a **building**, measured between **grade** and floor of the top **storey**, exceeds 36m, or in **buildings** containing a **floor area** or part of a **floor area** located above the third **storey**, and designed or intended as Group B **occupancy** for patients in bed or **infirm persons**, a voice communication system or systems conforming to Article 3.2.4.16. shall be provided.

3.2.7.3.(1) Emergency lighting shall be provided to average levels of at least 10 lx at floor or tread level in

- (a) **exits**, corridors used by the public and principal routes providing **access to exit** in an open **floor area** where such **exits**, corridors and routes are below **grade** or are windowless,
- (b) the following parts of **buildings** required by Subsection 3.2.4. (*see Article 3.2.4.1.*) to have a fire alarm system:

- (i) **exits**,
- (ii) corridors used by the public,
- (iii) principal routes providing **access to exit** in an open **floor area**,
- (iv) corridors serving patients' bedrooms, and
- (v) corridors serving classrooms,
- (c) underground **walkways**,
- (d) covered malls, and
- (e) **floor areas** or parts thereof where the public may congregate and which are not provided with natural lighting in
 - (i) Group A, Division 1 **occupancies**, and
 - (ii) Group A, Division 2 and 3 **occupancies** with an **occupant load** of 60 persons or more.

(2) An emergency power supply shall be provided to maintain the emergency lighting required by this Subsection from a power supply source such as batteries or generators that will continue to supply power in the event that the regular power supply to the **building** is interrupted and be so designed and installed that upon failure of the regular power it will assume the electrical load automatically for a period of

- (a) 2 h for all **buildings** within the scope of Subsection 3.2.6.,
- (b) 1 h for **buildings** of Group B **major occupancy** classification that are not within the scope of Subsection 3.2.6., and
- (c) ½ h for **buildings** of all other **occupancies**.

(3) Where self-contained emergency lighting units are used, they shall conform to CSA C22.2 No. 141, "Unit Equipment for Emergency Lighting".

3.2.7.4.(1) Except as provided in sentences (2) and (3), emergency power systems shall be installed in conformance with CSA C282, "Emergency Electrical Power Supply for Buildings".

(2) Except as provided in Sentence (3), emergency electrical power systems for emergency equipment required in this Part for hospitals and nursing homes shall be installed in conformance to CSA-Z32.4, "Essential Electrical Systems for Hospitals".

(3) Where a liquid or gas fuel-fired engine or turbine for an emergency electric power supply is dependent on a fuel supply from outside the **building**, such fuel supply shall be provided with a suitably-identified separate shut-off valve outside the **building**.

3.2.8. "Mezzanines and Openings Through Floor Assemblies" deals with the proper design of mezzanines and interconnected floor spaces. This information is quite comprehensive and can be found in the current Building Code therefore is not reproduced here with the exception of Sentences 3.2.8.1.(4) and (8).

3.2.8.1.(4) A **mezzanine** need not terminate at a vertical **fire separation** nor be protected in conformance with the requirements in Articles 3.2.8.2. to 3.2.8.10. where the **mezzanine**

- (a) serves a Group A, Division 1 **major occupancy**,
- (b) serves a Group A, Division 3 **major occupancy** in a **building** not more than 2 storeys in **building height**,
- (c) is not considered as a **storey** in Sentences 3.2.1.1.(3) or 3.2.1.1.(5) in calculating **building height** provided
 - (i) every point on the **mezzanine** is within 25 m of a point or points on the **mezzanine** perimeter from which, in the aggregate, an occupant may view 60 percent of the area of the room or **storey** in which the **mezzanine** is located, and
 - (ii) does not contain a Group B **occupancy**, or
- (d) is not considered a **storey** in Sentences 3.2.1.1.(4) or 3.2.1.1.(5) in calculating **building height** provided the **mezzanine** does not exceed 500 m² in area and does not contain a Group B **occupancy**, or

- (e) is not considered a **storey** in calculating **building height** in Sentence 3.2.1.1.(7).
- (8) An **interconnected floor space** need not conform to the requirements of Articles 3.2.8.2. to 3.2.8.10. provided
 - (a) the **interconnected floor space** consists of the **first storey**, and the **storey** next above or below it, but not both,
 - (b) the **interconnected floor space** is **sprinklered**, and
 - (c) the **interconnected floor space** contains a Group A, Division 1 or 2, Group D, Group E, or Group F, Division 3 **major occupancy**.

EXTRACTS FROM SECTION 3.3

- 3.3.2.3.(3) *This Sentence refers to egress doorways in fixed seat Group A, Division 1 assembly areas*
- (a) *where the doorways are provided at the ends of rows of seats where no more than 100 seats are provided per row, and*
 - (b) *where not more than 3 rows are served by the doorways.*
- 3.3.2.7. A dead-end corridor is permitted in an **assembly occupancy** where there is a second and separate egress doorway from each room or **suite** not leading into a dead-end corridor.
- 3.3.2.14.(3) A 1 h **fire separation** shall be provided between every **stage** for theatrical performances and ancillary spaces, such as workshops, dressing rooms and storage areas.
- (4) Every stage for theatrical performances and ancillary spaces, such as workshops, dressing rooms and storage areas, shall be separated from the seating space by a **fire separation** having a **fire-resistance rating** of not less than 1 h, except for a proscenium opening which shall be protected with
- (a) an unframed fire curtain when the opening does not exceed 20 m in width,
 - (b) a semi-rigid fire curtain when the opening is more than 20 m in width.
- (5) Every fire curtain as required by Sentence (4) shall be designed to close
- (a) automatically by heat-actuated devices,
 - (b) automatically upon the actuation of the sprinkler system,
 - (c) automatically upon actuation of the fire alarm system, and
 - (d) manually by remote control devices located at the curtain control panel and at each side of the stage.
- 3.3.3.5. *This Article deals with unsprinklered hospitals and nursing homes.*
- (5) *This Sentence waives latches for doors between patient's bedrooms and corridors provided the doors are equipped with roller latches.*
- 3.3.3.6. *This Article deals with sprinklered hospitals and nursing homes.*
- (2) *This Sentence details the requirement to subdivide floor areas containing patient's bedrooms in hospitals and nursing homes into fire compartments not exceeding 1000 m² in area.*
- (9) *This Sentence allows the use of roller latches on patient's bedroom doors in hospitals and nursing homes.*
- 3.3.4. *Subsection 3.3.4., "Residential Occupancies", details residential occupancies and is not relevant to the Fire Code reference.*

APPENDIX A

3.3.4.2.(3) *This Sentence details storage rooms for the use of tenants in residential occupancies and is not relevant to the Fire Code reference.*

3.3.7.6. *This Article requires a vestibule when access is provided from a **storage garage** to a stair tower or elevator serving **occupancies** above the level of the **storage garage**.*

(3) Mechanical **storage garages** of not more than 4 **storeys** in **building height**, where no persons other than parking attendants are permitted above the **street** floor level, need not have a **fire separation** between the **exits** and the remainder of the **building**.

EXTRACTS FROM SECTION 3.4

3.4.1.2. Subject to the requirements of this Section, an **exit** from any **floor area** shall be one of the following used singly or in combination:
exterior doorway, exterior passageway, exterior ramp, exterior stairway, fire escape, **horizontal exit**, interior passageway, interior ramp, or interior stairway.

3.4.2.3.(2) For the purposes of this Subsection, travel distance means the distance from any point in the **floor area** to an **exit** measured along the path of **exit** travel, except that the travel distance may be measured from an egress door of a room or **suite** to the nearest **exit** where

- (a) the **public corridor** or a corridor used by the public which serves the room or **suite** is separated from the remainder of the **floor area** by a **fire separation**, or
- (b) the room or **suite** is served by an exterior passageway.

3.4.3.1.(1) The aggregate width of required exits shall be at least the value as calculated in conformance with the Building Code.

3.4.4.1.(1) Except as provided in Sentence (2), (7) and (8) and in Sentence 3.3.7.6.(3), every **exit** shall be separated from each adjacent **floor area** by a **fire separation** having a **fire-resistance rating** conforming to Table 3.4.4.A. for the grade of **fire separation** required for the floor assembly above the **floor area** and, where there is no floor assembly above, not less than that required for the floor assembly below, but in no case shall the **fire-resistance rating** be less than $\frac{3}{4}$ h.

TABLE 3.4.4.A.

Forming Part of Sentence 3.4.4.1.(1)

Grade of Fire Separation Required for Floor Assembly, h	Minimum Fire-Resistance Rating for Fire Separation of Exit , h
less than $\frac{3}{4}$	$\frac{3}{4}$
$\frac{3}{4}$	$\frac{3}{4}$
1	$\frac{3}{4}$
$1\frac{1}{2}$	1
2	$1\frac{1}{2}$
3	2
4	2
Column 1	2

(2) RESERVED

(5) Except as provided in Sentence (8), where an exterior **exit** door in one **fire compartment** is within 3 m horizontally of openings in another **fire compartment**, and the exterior walls containing such openings intersect at an exterior angle of less than 135°, the openings shall be protected with wired glass in fixed steel frames or glass block conforming to Article 3.1.6.10.

(7) Not more than 1 **exit** from a **floor area** may lead through a lobby provided

- (a) the lobby floor is not more than 4.5. m above **grade**,
- (b) the path of travel through the lobby to the outdoors does not exceed 15 m,
- (c) the adjacent rooms or premises having direct access to the lobby do not contain a Group C or F **occupancy**,
- (d) the lobby is not located within an **interconnected floor space** other than as described in Sentence 3.2.8.1.(8),
- (e) the lobby conforms to the requirements for **exits**, except that
 - (i) rooms other than **service rooms** and storage rooms may open onto the lobby,
 - (ii) the **fire separation** between the lobby and a room used for the sole purpose of control and supervision of the **building** need not have a **fire-resistance rating**, and
 - (iii) the **fire separation** between the lobby and adjacent **occupancies** that are permitted to open onto the lobby need not have a **fire-resistance rating** when the lobby and adjacent **occupancies** are **sprinklered**, and
- (f) the **fire separation** required in Sentence (1) shall be maintained between the **exit** and the lobby.

(8) The requirements in Sentences (1) and (5) do not apply to an exterior **exit** passageway provided

- (a) at least 50 percent of the exterior side is open to the outdoors, and
- (b) an **exit** stair is provided at each end of the passageway.

3.4.5.1.(1) Every **exit** door other than the main entrance to a room or **building** shall have an **exit** sign placed over it when the **exit** serves

- (a) a **building** exceeding 2 storeys in **building height**,
- (b) a **building** having an occupant load greater than 150,
- (c) a room or floor area that has a fire escape as part of a required means of egress, or
- (d) a corridor exceeding 25 m in length and serving patients' or inmates' bedrooms in Group B, Division 2 occupancies.

(2) Except as provided in Sentence (7), every **exit** sign shall

- (a) be visible from the **exit** approach,
- (b) have the word EXIT or the words EXIT/SORTIE displayed in plain legible letters, and
- (c) be designed to be illuminated continuously while the **building** is occupied.

(3) Lettering on **exit** signs shall be

- (a) red letters on a contrasting background or white letters on a red background, at least 114 mm high with 19 mm stroke spelling EXIT or EXIT/SORTIE when the sign is internally illuminated, and
- (b) white letters on a red background or red letters on a white background at least 150 mm in height with 19 mm stroke spelling EXIT or EXIT/SORTIE when the sign is externally illuminated.

(4) The lighting for **exit** signs shall

- (a) be supplied by an electrical circuit that
 - (i) is separate from other circuits, or
 - (ii) serves other emergency equipment, and
- (b) be connected to an emergency power supply as described in Sentence 3.2.7.3.(2) where emergency lighting is required in Sentence 3.2.7.3.(1).

APPENDIX A

(5) Where necessary, signs shall be provided to indicate the direction of egress in **public corridors** and passageways, and shall have the word EXIT or the words EXIT/SORTIE with a suitable arrow or pointer indicating the direction of egress, and the size of lettering shall conform to Sentence (3).

(6) Except for egress doors described in Sentence 3.3.2.3.(3), and except for the main entrance door, an **exit** sign conforming to Sentences (2), (3) and (4) shall be placed over every egress door from rooms with an **occupant load** of more than 60 in Group A, Division 1 **occupancies**, dance halls, licensed beverage establishments and other similar **occupancies** that, when occupied, have lighting levels below that which would provide easy identification of the egress door.

(7) Where an **exit** sign having the word EXIT is installed in conformance with Sentences (1), (5) or (6), an additional sign having the word SORTIE may be installed.

3.4.5.2. In **buildings** over 2 **storeys** in **building height**, any part of an **exit** ramp or stair that continues past an exterior **exit** door down to a **basement** shall be clearly marked by a sign indicating that it does not lead to an **exit**.

3.4.7.11.(1) Access to exterior **exit** passageways from the **floor area** shall be through **exit** doors at the floor level.

(2) Every exterior **exit** passageway which has a drop of more than 500 mm on any side shall have **guards** on the open sides at least 1070 mm high.

(3) Where an exterior **exit** passageway provides the only **means of egress** from the rooms or **suites** it serves, the wall and ceiling finishes of that passageway, including the soffit beneath and the **guard** on the passageway, shall have a **flame-spread rating** of not more than 25, except that up to 10 per cent of the total wall area and 10 percent of the total ceiling area is permitted to have a **flame-spread rating** of not more than 150.

3.4.7.13.(1) Except as provided in Sentence (2), fire escapes shall not be erected on **buildings**.

(2) Where it is impractical to provide 1 or more of the **exit** facilities in Article 3.4.1.2., fire escapes conforming to Sentences (3) to (13) may serve **floor areas** in existing **buildings** provided the **floor areas** served are not more than

- (a) 2 **storeys** above ground level in Group B **occupancies**, and
- (b) 5 **storeys** above ground level in other **occupancies**.

(3) Fire escapes shall be of metal or concrete, of the stair type extending to ground level, constructed throughout in a strong substantial manner and securely fixed to the **building**, except that wooden fire escapes may be used on **buildings** of **combustible construction** if all posts and brackets are at least 89 mm in their least dimension and all other woodwork is at least 38 mm in its least dimension.

(4) Access to fire escapes shall be from corridors through doors at floor level, except that access from a **dwelling unit** may be through a casement window having an unobstructed opening of not less than 1100 mm high, by 550 mm wide with a sill height of not more than 900 mm above the inside floor.

(5) Where a fire escape serves any **storey** above the second, openings, including access doorways in the exterior walls of the **building** to which the fire escape is attached, shall be protected by **closures** conforming to Subsection 3.1.6. where they are located within 3 m horizontally of, 3 **storeys** or 10 m below, or 1.8 m above any balcony, platform or stairway of a fire escape.

(6) Stairs shall be inclined at an angle of not more than 45° with the horizontal, and shall have risers of not more than 210 mm in height and treads of not less than 220 mm in width exclusive of nosing.

(7) Stairway headroom shall be not less than 1950 mm plus the height of 1 riser measured vertically above the nosing of any tread or platform.

(8) Where doors open onto fire escape balconies, such balconies shall have a clear area of not less than 1.0 m².

(9) The width of a fire escape shall conform to Sentence 3.4.3.1.(1), except that the fire escape shall be at least 550 mm wide when serving

- (a) not more than 3 **storeys**, and
- (b) not more than 15 persons.

(10) The open sides of every platform, balcony and stairway shall be protected by **guards** at least 920 mm in height measured vertically above the nosing of any tread or platform.

(11) Two equally spaced rails not more than 460 mm apart, parallel to stair stringers and to platform edges, shall be the minimum protection provided, and the top rail may serve as a handrail if free from obstructions which could break a hand hold.

(12) A wall handrail shall be installed where the fire escape is more than 550 mm in width.

(13) Where the flight of stairs leading to the ground at the foot of a fire escape is not fixed in position, it shall be held in the “up” position without a latch or locking device, and shall be fitted with a counterbalancing device that will permit it to be easily and quickly brought into position for use.

EXTRACTS FROM SECTION 3.5

3.5.2.1.(1) Fuel-fired **appliances** shall not be installed in any **exit** or any corridor serving as **access to exit**.

(2) Except as provided in Sentences (3) and (4), fuel-fired **appliances** shall be located in a **service room** or **service space** separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** of not less than

- (a) Not relevant to Fire Code reference.
- (b) Not relevant to Fire Code reference.
- (c) 1 h in **buildings** other than as described in Clauses (a) and (b).

(3) No **fire separation** is required for fireplaces or roof-top **appliances**.

(4) Except for **buildings** classified as group B or Group F, Division 1 **major occupancy**, the **fire separations** required in Sentence (2) need not be provided for fuel-fired **appliances** where it can be shown that the separation is not necessary and the **appliance**

- (a) serves not more than 1 room or **suite**, or
- (b) serves a **building** with a **building area** of not more than 400 m² and a **building height** of not more than 2 **storeys**.

3.5.2.2. *Not relevant to Fire Code reference.*

3.5.2.3. *Not relevant to Fire Code reference.*

3.5.2.4.(1) Except as provided in Sentences (3) and (4), **service rooms** used for purposes other than those described in Articles 3.5.2.1., 3.5.2.5. and 3.5.2.6. shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** of at least 1 h when the **floor area** containing such rooms is not **sprinklered**.

(2) *Not relevant to Fire Code reference.*

(3) Where a room contains a limited quantity of service equipment, and the service equipment does not constitute a fire hazard, the requirements for a **fire separation** or sprinklering in Sentence (1) shall not apply.

APPENDIX A

(4) A **service room** containing elevator machinery need not be separated from the elevator hoistway connected to it provided the **service room** is separated from all other parts of the **building** by a **fire separation** having a **fire-resistance rating** at least equal to that required for the **vertical service space** containing the elevator hoistway.

3.5.2.5.(1) **Service rooms** containing an incinerator shall be separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** of at least 2 h.

(2) *Not relevant to Fire Code reference.*

3.5.2.6. Except as provided in Sentence 3.5.3.2.(9), rooms for the temporary storage of **combustible** refuse such as garbage or waste paper shall be separated from the remainder of the **building** by a 1 h **fire separation** and be **sprinklered**.

3.5.2.7. *Not relevant to Fire Code reference.*

3.5.2.8.(1) Where a transformer vault is required by the provisions of a regulation under the Power Corporation Act, the transformer vault shall be separated from the remainder of the **building** by a **fire separation** of solid masonry or concrete construction having a **fire-resistance rating** of not less than 3 h if the vault is not provided with an automatic fire extinguishing system and not less than 2 h if the vault is so protected.

(2) *Not relevant to Fire Code reference.*

(3) Only pipes or ducts necessary for fire protection or the proper operation of the electrical installation shall penetrate the **fire separations** surrounding the transformer vault.

(4) *Not relevant to Fire Code reference.*

(5) *Not relevant to Fire Code reference.*

(6) *Not relevant to Fire Code reference.*

(7) *Not relevant to Fire Code reference.*

(8) Doorways in **fire separations** between a transformer vault containing an oil-filled transformer and the remainder of the **building** shall be provided with concrete sills that are of sufficient height to confine within the vault all the oil from the largest transformer but not less than 100 mm in height.

3.5.3. *This Subsection details the requirements of vertical service spaces. Comparable information can be found in the current Building Code.*

3.5.3.2.(6) Sprinklers shall be installed at the top of each linen and refuse chute, at alternate floor levels and in the room or bin into which the chute discharges.

(9) A refuse chute shall discharge only into a room or bin separated from the remainder of the **building** by at least a 2 h **fire separation**.

3.5.4.3. *This Article details the requirements of a concealed space used as a plenum space. This information is available in the current Building Code.*

EXTRACTS FROM SECTION 4.3

4.3.2.1. **Buildings** and their structural members made of plain and reinforced masonry shall conform to CAN3-S304, "Masonry Design and Construction for Buildings".

EXTRACTS FROM SECTION 9.9

9.9.2.2. **Exits** may consist of doorways, passageways, ramps, stairways and **horizontal exits**. Fire escapes may be used as **exits** on existing **buildings** provided they are designed and installed in conformance with Part 3 (*see Article 3.4.7.13.*).

9.9.2.3.(1) Elevators, slide escapes or windows shall not be considered as being part of a required **means of egress**.

(2) Except for **floor areas of mercantile occupancy**, casement windows not less than 1060 mm high, 560 mm wide, with a sill height not more than 900 mm above the inside floor, may be considered part of a required **means of egress** to provide access to fire escapes, when fire escapes are permitted.

9.9.11.3. Emergency lighting shall be provided in **exits**, corridors used by the public and principal routes providing **access to exit** in an open **floor area** where such **exits**, corridors and access routes are below **grade**, are windowless or are required in **buildings** in Subsection 9.10.17. to have a fire alarm system.

9.9.11.4. Emergency lighting required in Article 9.9.11.3. shall be provided from a source of energy separate from the electric supply for the **building**. Such lighting shall be designed to be automatically actuated when the electric lighting in the affected area is interrupted. Illumination from such lighting shall be at least 10 lx for a period of at least ½ h. Where incandescent lighting is provided, lighting equal to 1 W/m² of floor area shall be considered to meet this requirement.

9.9.11.5. Where self-contained emergency lighting units are used, they shall conform to CSA C22.2 No. 141, "Unit Equipment for Emergency Lighting."

EXTRACTS FROM SECTION 9.10

9.10.3.1. Where a **fire-resistance rating** or a **fire-protection rating** is required in this Section for an element of a **building**, such rating shall be determined in conformance with Tables 9.10.3.A. and 9.10.3.B., Chapter 2 of the Supplement to the NBC 1985, or in conformance with the test methods described in Part 3 (*See Articles 3.1.5.1. and 3.1.6.4. for details.*).

9.10.3.2. Where a **flame-spread rating** is required in this Section for an element of a **building**, such rating shall be determined in accordance with the test methods described in Part 3 (*see Article 3.1.11.3.*), or in accordance with Chapter 2 of the Supplement to the NBC 1985. Unless such rating is referred to herein as a "surface **flame-spread rating**," it shall apply to any surface of the element being considered that would be exposed by cutting through it as well as to the exposed surface of the element.

9.10.3.3. Floor, roof and ceiling assemblies shall be rated for exposure to fire on the underside.

9.10.3.4. Not relevant to Fire Code reference.

9.10.3.5. **Firewalls** and interior vertical **fire separations** required to have **fire-resistance ratings** shall be rated for exposure to fire on each side.

APPENDIX A

9.10.3.6. Where a ceiling construction has a suspended membrane ceiling with lay-in panels or tiles which contribute to the required **fire-resistance rating**, hold down clips or other means shall be provided to prevent the lifting of such panels or tiles in the event of a fire.

9.10.9.13. Except as provided in Article 9.10.9.14., a **horizontal service space** or other concealed space located above a required vertical **fire separation** shall be divided at the **fire separation** by an equivalent **fire separation** within the space.

9.10.9.14. Where a **horizontal service space** or other concealed space is located above a required vertical **fire separation** other than a vertical shaft, such space need not be divided as required in Article 9.10.9.13. provided the construction between such space and the space below is constructed as a **fire separation** having a **fire-resistance rating** at least equivalent to that required for the vertical **fire separation**, except that where the vertical **fire separation** is not required to have a **fire-resistance rating** greater than $\frac{3}{4}$ h, the **fire-resistance rating** of the ceiling may be reduced to $\frac{1}{2}$ h.

9.10.17. Please refer to Article 3.2.4.1. for fire alarm system installation requirements.

9.10.17.4. Where a fire alarm system is required, every **public corridor** in **buildings of residential occupancy** and every **exit** stair shaft shall be provided with **smoke detectors**.

9.10.17.5. Except as provided in Article 9.10.17.6., **buildings** required to have a fire alarm system shall be equipped with **heat detectors** or **smoke detectors** in storage rooms, **service rooms**, elevator shafts, chutes, janitors' closets and any other rooms where hazardous substances are intended to be used or stored.

9.10.17.6. **Heat detectors** and **smoke detectors** described in Article 9.10.17.5. are not required in **dwelling units** or in **sprinklered buildings** in which the sprinkler system is electrically supervised and equipped with a water flow alarm.

9.10.17.11. Fire alarm, fire detection and smoke detection devices and systems, and their installation, shall conform to Part 3 (see Section 3.2.4.).

9.10.18. See Articles 3.2.4.15., 9.10.18.4. and 9.10.18.6. for smoke alarm installation requirements.

9.10.18.4. **Smoke alarms** shall be installed by permanent connections to an electrical circuit and shall have no disconnect switch between the overcurrent circuit device and the **smoke alarm**. Where the **building** is not supplied with electrical power, **smoke alarms** may be battery operated.

9.10.18.6. Where instructions are necessary to describe the maintenance and care required for **smoke alarms** to ensure continuing satisfactory performance, they shall be posted in a location where they will be readily available to the occupants for reference.

TABLE 9.10.3.A.
Forming Part of Article 9.10.3.1.
FIRE RESISTANCE OF WALLS

Type of Wall	No.	Description	Finish on Each Side ⁽¹⁾	Fire-Resistance Rating, h
Solid brick	1	90 mm thick walls of shale, clay, concrete or sand lime brick	None	1
	2	140 mm thick walls of shale, clay, concrete or sand-lime brick	None	2 1/2
	3	190 mm thick walls of shale, clay, concrete or sand-lime brick	None	4
Hollow concrete block (normal weight aggregate)	4	90 mm	None	3/4
	5	Same as 4	A or B	1 1/2
	6	Same as 4	C or D	1 1/2
	7	140 mm	None	1
	8	Same as 7	A	1 1/2
	9	Same as 7	B, C or D	2
	10	Same as 7 with mineral fibre between resilient channels on at least 1 side	A	1 1/2
	11	190 mm	None	1 1/2
	12	Same as 11	A or B	2
	13	Same as 11	C or D	3
Concrete	14	150 mm	None	3
	15	200 mm	None	4
Interior wood stud, single row	16	38 mm X 89 mm studs 400 mm o.c.	C or D	1
	17	38 mm X 89 mm studs 400 mm o.c., mineral fibre with a mass of at least 1.2 kg/m ² in cavity	A	3/4
	18	Same as 17 with resilient metal channels on at least 1 side	A	3/4
Interior stud, 2 rows staggered on 38 mm X 140 mm plate	19	Two rows 38 mm X 89 mm studs, each set 400 mm or 600 mm o.c. staggered on common 38 mm X 140 mm plate	C or D	1
	20	Two rows 38 mm X 89 mm studs, each set 400 mm or 600 mm o.c. staggered on common 38 mm X 140 mm plate, mineral fibre with a mass of at least 1.2 kg/m ² on each side	A	3/4
Column 1	2	3	4	5

TABLE 9.10.3.A.
(continued)

Type of Wall	No.	Description	Finish on Each Side ⁽¹⁾	Fire-Resistance Rating, h
Interior wood, 2 rows on separate plates	21	Two rows 38 mm X 89 mm studs, each set 400 mm or 600 mm o.c. on 38 mm X 89 mm plates set 25 mm apart	C or D	1
	22	Two rows 38 mm X 89 mm studs, each set 400 mm or 600 mm o.c. on 38 mm X 89 mm plates set 25 mm apart, mineral fibre with a mass of at least 1.2 kg/m ² on each side	A	3/4
Exterior, wood stud	23	38 mm X 89 mm or 38 mm X 140 mm studs spaced up to 600 mm o.c., mineral fibre with a mass of at least 1.2 kg/m ² , wall sheathing and siding	A (interior side)	3/4
	24	Same as 23	C or D (interior side)	1
Non load-bearing steel stud	25	90 mm steel studs spaced up to 600 mm o.c.	C	3/4
	26	Same as 25	D	1
	27	Same as 25 with mineral fibre filling cavity	C	1
	28	Same as 25	D	1
Column 1	2	3	4	5

Addendum to Table 9.10.3.A.:

⁽¹⁾ The finishes designated by letter refer to the following:

A = 12.7 mm gypsum board, taped joints,

B = 12.7 mm gypsum-sand plaster,

C = 15.9 mm special fire-resistant Type X gypsum board conforming to CSA - A82.27, "Gypsum Board Products", and

D = 19 mm gypsum-sand plaster on 9.5 mm gypsum lath or metal lath.

The sound rating for walls has not been included in Tables 9.10.3.A. and 9.10.3.B. as this information is not considered relevant to the requirements of the Fire Code.

TABLE 9.10.3.B.

Forming Part of Article 9.10.3.1.
FIRE RESISTANCE OF FLOORS AND CEILINGS AND ROOFS⁽²⁾

Type of Assembly	No.	Description	Ceiling Finish ⁽¹⁾	Fire-Resistance Rating, h
Concrete slabs	1	90 mm reinforced concrete with 20 mm minimum cover over reinforcing steel	None	1
	2	130 mm reinforced concrete with 25 mm minimum cover over reinforcing steel	None	2
Open web steel joists	3	Open web steel joists with minimum 50 mm thick concrete deck, ceiling secured to furring channels spaced not more than 600 mm o.c. wired to underside of joists	C or D	1
Wood floor joists	4	19 mm T&G lumber or 15.5 mm plywood or wafer-board subfloor with mineral fibre between joists spaced 400 mm o.c.; Ceiling finish attached to resilient channels	C	3/4
	5	Same as 4	D	1
	6	19 mm T&G lumber or 15.5 mm plywood or wafer-board subfloor over joists spaced 400 mm o.c., 50 mm concrete topping	C	3/4
	7	Same as 6	D	1
	8	Same as 6 with mineral fibre between joists and ceiling finish attached to resilient channels	C	3/4
	9	Same as 6 with mineral fibre between joists and ceiling finish attached to resilient channels	D	1
Rating provided by membrane only ⁽³⁾	10	Supporting members spaced not more than 600 mm o.c.	C	1/2
	11	Same as 10	C (2 layers)	1
Wood floor trusses spaced not more than 600 mm o.c.	12	19 mm T&G lumber or 15.5 mm plywood or wafer-board subfloor over 38 mm X 89 mm framing members with metal connector plates at least 1 mm thick with teeth at least 8 mm in length	C	3/4
	13	38mm x 89mm framing members with connector plates at least 1 mm thick with teeth at least 8 mm in length	C	3/4
Column 1	2	3	4	5

APPENDIX A

Addendum to Table 9.10.3.B.:

⁽¹⁾ The finishes designated by letter refer to the following: C = 15.9 mm special fire-resistant Type X gypsum board conforming to CSA - A82.27, "Gypsum Board Products", and D = 19 mm gypsum-sand plaster on 9.5 mm gypsum lath or metal lath.

⁽²⁾ Fire-resistive ratings for floor assemblies may be applied to roof assemblies having the same ceiling finish provided that, where wood joists are used, the roof sheathing consists of not less than 12.5 mm plywood or waferboard or 19 mm lumber. Where steel joists are used, the ratings are based on the assumption that the roof deck consists of not less than 50 mm of concrete.

⁽³⁾ See Article 9.10.9.1

APPENDIX B

1990 Building Code References

This Appendix contains extracts from the 1990 Building Code (O. Reg. 413/90) as referenced in Sections 9.5, 9.6 and 9.7 in Division B of the Fire Code. The complete quote is provided wherever possible. In some cases, the Building Code reference is very lengthy and thus only the relevant portions have been reproduced. Information in *italics* contains editorial notes rather than direct quotes from the Building Code.

EXTRACTS FROM SECTION 3.1

3.1.4.6. *The requirements for heavy timber construction are essentially unchanged since 1990 and can be referenced in the current edition of the Building Code.*

3.1.5. *Subsection 3.1.5. deals with buildings that are required to be of noncombustible construction and the combustible elements that are allowed to be used in the construction of these buildings. This information can be found in the current Building Code and is therefore not reproduced in its entirety in this Appendix.*

3.1.5.3.(2) **Combustible** roof sheathing and roof sheathing supports installed above a concrete deck are permitted on a **building** required to be of **noncombustible construction** provided

- (a) the concrete deck is not less than 50 mm thick,
- (b) the height of the roof space above the deck is not more than 1 m,
- (c) the roof space is divided into compartments by fire stops in conformance with Article 3.1.11.5.,
- (d) openings through the concrete deck other than noncombustible roof drains and plumbing piping are protected by masonry or concrete shafts constructed as fire separations having a fire-resistance of not less than 1 h and extending from the concrete deck to not less than 150 mm above the adjacent roof sheathing,
- (e) the perimeter of the roof is protected by a noncombustible parapet extending from the concrete deck to not less than 150 mm above the adjacent sheathing, and
- (f) except as permitted in Clause (d), the roof space does not contain any building services.

3.1.5.6. Wood nailing elements attached directly to or set into a continuous **noncombustible** backing for the attaching of interior finishes, are permitted in a **building** required to be of **noncombustible construction** provided the concealed space created by the wood elements is not more than 50 mm thick.

3.1.5.17.(1) Except as permitted in Articles 3.1.5.16. and 3.1.5.19, electrical wires and cables with **combustible** insulation, jackets or sheathes are permitted in a **building** required to be of **non-combustible construction** provided

- (a) the wires and cables exhibit a vertical char of not more than 1.5 m when tested in conformance with the Vertical Flame Test - Cables in Cabletrough in Clause 4.11.4. of CSA C22.2 No. 0.3, "Test Methods for Electrical Wires and Cables", (FT4 Rating), or they comply with the test requirements in Subclause 3.5.4.3.(1)(a)(ii), (FT6 Rating), or
- (b) Not relevant to Fire Code reference.

3.1.7. *The technical requirements of Subsection 3.1.7, "Fire-Resistance Ratings", are essentially identical to the requirements contained in Subsection 3.1.5. of Appendix A, "1986 Building Code References".*

3.1.8.1. *The technical requirements of Article 3.1.8.1. are essentially identical to the requirements contained in Article 3.1.6.1. of Appendix A, "1986 Building Code References".*

3.1.8.2. **Combustible construction** that abuts on or is supported by a **noncombustible fire separation** shall be constructed so that its collapse under fire conditions will not cause the collapse of the **fire separation**.

3.1.8.3. *The technical requirements of Article 3.1.8.3. are essentially identical to the requirements contained in Sentences 3.1.6.3.(1) and (3) of Appendix A, "1986 Building Code References".*

APPENDIX B

3.1.8.4.(2) Except as provided in Sentence 3.1.8.10.(1), the **fire-protection rating** of **closures** shall conform to Table 3.1.8.A. for the required **grade** of **fire separation**.

3.1.8.10.(1) A door assembly having a **fire-protection rating** of not less than 20 min is permitted to be used as a closure in

- (a) a **fire separation** not required to have a **fire-resistance rating** more than 1 h and located between
 - (i) a public corridor and a suite,
 - (ii) a corridor and adjacent sleeping rooms, or
 - (iii) a corridor and adjacent classrooms, offices and libraries in Group A, Division 2 **major occupancies**, and
- (b) a **fire separation** not required to have a **fire-resistance rating** more than 45 min, located in a **building** not more than 3 **storeys** in **building height**.

TABLE 3.1.8.A.

Forming Part of Sentence 3.1.8.4.(2)

Fire-Resistance Rating of Fire Separation, h	Required Fire-Protection Rating of Closure, h
3/4	3/4
1	3/4
1½	1
2	1½
3	2
4	3
Column 1	2

3.1.8.11.(1) Except as provided in Sentence (2), every door in a **fire separation** other than doors to freight elevators and dumbwaiters shall be equipped with a self-closing device designed to return the door to the closed position after each use.

3.1.8.13. Except as permitted in Subsection 3.3.3. (*not relevant to Fire Code reference*), every swing-type door in a **fire separation** shall be equipped with a positive latching mechanism designed to hold the door in the closed position after each use.

3.1.8.14. *The technical requirements of Article 3.1.8.14. are essentially identical to the requirements contained in Article 3.1.6.10. of Appendix A, "1986 Building Code References".*

3.1.11.5.(1) Every unsprinklered concealed space within a ceiling or roof assembly of **combustible construction**, including attic spaces, shall be separated by construction conforming to Article 3.1.11.7. into compartments not more than

- (a) 600 m² in area with no dimension more than 60 m where the exposed construction materials within the space have a **flame-spread rating** of not more than 25, and
- (b) 300 m² in area with no dimension more than 20 m where the exposed construction materials within the space have a **flame-spread rating** of more than 25.

(2) Every concealed space in exterior cornices, mansard style roofs, balconies and canopies in which the exposed construction materials within the space have a **flame-spread rating** of more than 25 shall be separated by construction conforming to Article 3.1.11.7.

- (a) at the points where such concealed spaces extend across the ends of required vertical **fire separations**, and
- (b) so that the maximum dimension in any concealed space is not more than 20 m.

3.1.11.7.(1) Except as provided in Sentences (2) to (4), materials used to separate concealed spaces into compartments shall remain in place and prevent the passage of flames for a period of not less than 15 min when subjected to the standard fire exposure in CAN4-S101-M, “Standard Methods of Fire Endurance Tests of Building Construction and Materials”.

(2) Gypsum wallboard not less than 12.7 mm thick and sheet steel not less than 0.38 mm thick need not be tested in conformance with Sentence (1) provided all joints have continuous support.

(3) In **buildings** required to be of **noncombustible construction**, wood nailing elements described in Article 3.1.5.6., need not be tested in conformance with Sentence (1).

(4) In **buildings** permitted to be of **combustible construction**, and in **combustible** roof systems permitted by Sentence 3.1.5.3.(2), materials used to separate concealed spaces into compartments are permitted to be

- (a) solid lumber not less than 38 mm thick,
- (b) phenolic bonded plywood, waferboard or strandboard not less than 12.5 mm thick with joints supported, or
- (c) 2 thicknesses of lumber each not less than 19 mm thick with joints staggered, where the width or height of the concealed space is such that more than one piece of lumber not less than 38 mm thick is necessary to block off the space.

3.1.13.2. *The technical requirements of Article 3.1.13.2. are essentially identical to the requirements contained in Article 3.1.11.2. of Appendix A, “1986 Building Code References”.*

3.1.13.4.(1) *The technical requirements of Sentence 3.1.13.4.(1) are essentially identical to the requirements contained in Sentence 3.1.11.3.(2) of Appendix A, “1986 Building Code References”.*

3.1.13.7.(1) Except as permitted in Sentences (2) and (3), and except for **combustible** plumbing fixtures including wall and ceiling enclosures and for light diffusers and lenses conforming to Sentence 3.1.13.4.(1), the interior wall, ceiling and floor finishes in a **building** regulated by the provisions of Subsection 3.2.6. shall conform to the **flame-spread rating** requirements in Article 3.1.13.2. and to the **flame-spread rating** and smoke developed classification values in Table 3.1.13.B.

TABLE 3.1.13.B.
Forming Part of Sentences 3.1.13.7.(1) and (2)

Location or Element	Maximum Flame-Spread Rating		
	Wall Surface	Ceiling Surface ⁽¹⁾	Floor Surface
Exit Stairways, vestibules to exit stairs and lobbies described in Sentence 3.4.4.2.(1)	25	25	25
Corridors not within suites	-	-	300
Elevator cars and vestibules	25	25	300
Service spaces and service rooms	25	25	25
Other locations and elements	-	-	No limit
Column 1	2	3	4

Note to Table 3.1.13.B.:

(1) See Sentence 3.1.13.4.(1) for lighting elements.

(2) Except for **buildings of Group B major occupancy** and elevator cars, the **flame-spread rating** and smoke developed classification of interior wall and ceiling finishes need not conform to the values in Table 3.1.13.B. provided the **building** is **sprinklered** and the sprinkler system is electrically supervised in conformance with Sentence 3.2.6.4.(1).

(3) Trim, millwork and doors in **exit** stairways, vestibules to **exit** stairs, lobbies described in Sentence 3.4.4.2.(2) and corridors not within **suites** need not conform to the **flame-spread rating** and smoke developed classification requirements in Sentence (1) provided

- (a) they have a **flame-spread rating** of not more than 150 and a smoke developed classification of not more than 300, and
- (b) their aggregate area does not exceed 10 percent of the area of the wall or ceiling on which they occur.

EXTRACTS FROM SECTION 3.2

3.2.1.1.(7) A **service space** in which facilities are included to permit a person to enter and to undertake maintenance and other operations pertaining to **building** services from within the **service space** need not be considered a **storey** if it conforms to Articles 3.2.5.15. and 3.3.1.22., and Sentences 3.2.4.19.(2), 3.2.7.3.(2), 3.3.1.3.(7), 3.4.2.4.(3) and 3.4.4.4.(8).

3.2.2.60.(1) A **building** used as a **storage garage** with all **storeys** constructed as **open-air storeys** and having no other **occupancy** above it may have its floor, wall, ceiling and roof assemblies constructed without a **fire-resistance rating** provided the **building** is

- (a) of noncombustible construction,
- (b) no more than 22 m in height, measured between **grade** and the ceiling level of the top **storey**,
- (c) not more than 10,000 m² in **building area**, and
- (d) designed so that every portion of each **floor area** is within 60 m of an exterior wall opening.

3.2.4.1.(1) Except as provided in Sentences (2) to (4), a fire alarm system shall be installed when the **occupant load** in Table 3.2.4.A. for any **major occupancy** is exceeded, and in **buildings** containing

- (a) a contained use area,
- (b) an impeded egress zone,
- (c) an **interconnected floor space** required to conform to Articles 3.2.8.3. to 3.2.8.11.,
- (d) more than 3 **storeys**, including **storeys** below **grade**,
- (e) a total **occupant load** of more than 300, other than in open air seating areas,
- (f) an **occupant load** of more than 150 above or below the **first storey**, other than in open air seating areas, or
- (g) a child care facility, including a day care facility, with an **occupant load** of more than 40.

Details of proper interconnected floor space design as referenced in Articles 3.2.8.3. to 3.2.8.11. are quite comprehensive and can be found in the current edition of the Building Code.

(2) A fire alarm system is not required in apartment **buildings** where not more than 4 **dwelling units** share a common **means of egress**, or in **buildings** 3 **storeys** or less in **building height** where each **dwelling unit** is served by an exterior **exit** facility leading to ground level.

(3) A fire alarm system is not required in **hotels** 3 **storeys** or less in **building height** where each **suite** is served by an exterior **exit** facility leading to ground level.

(4) Except as required in Sentence 3.2.4.2.(1), a fire alarm system is not required in a **storage garage** conforming to Article 3.2.2.60. provided there are no other **occupancies** in the **building**.

TABLE 3.2.4.A.
Forming Part of Sentence 3.2.4.1.(1)

Major Occupancy Classification	Occupant Load Above which a Fire Alarm System is Required
Group A, Division 2 (licensed restaurants and beverage establishments only)	150
Group A, Division 2 (schools and colleges only)	40
Group A, Division 4	300 below the seating area
Group B, Division 2	10 receiving care or treatment
Group C	10 having sleeping accommodation
Group F, Division 1	25
Group F, Division 2 and 3	75 above and below the first storey
Column 1	2

3.2.4.2.(1) Where there are openings through a **firewall**, other than those for piping, tubing, wiring and totally enclosed **noncombustible** raceways, the requirements in this Subsection shall apply to the **floor areas** on both sides of the **firewall** as if they were in the same **building**.

(2) Except as provided in Sentence (4), where a **building** contains more than 1 **major occupancy** and a fire alarm system is required, a single system shall serve all **occupancies**.

(3) Except as provided in Sentence (4), where a fire alarm system is required in any portion of a **building**, it shall be installed throughout the **building**.

(4) Except as provided in Sentence (5), in a **building** not more than 3 **storeys** in **building height**, where a vertical **fire separation** having a **fire-resistance rating** of not less than 1 h separates a portion of the **building** from the remainder of the **building** and there are no openings through the **fire separation**, other than those for piping, tubing, wiring and totally enclosed **noncombustible** raceways, the requirements in this Subsection are permitted to be applied to each portion so separated as if it were a separate **building**.

(5) The permission in Sentence (4) to consider separated portions of a **building** as separate **buildings** does not apply to **service rooms** and storage rooms.

3.2.4.3.(1) Fire alarm systems shall be

- (a) single stage systems in Group F, Division 1 **occupancies**,
- (b) 2 stage systems in Group B **occupancies** other than those described in Clause (c),
- (c) single or 2 stage systems in **buildings** 3 **storeys** or less in **building height** used for children's custodial homes, convalescent homes or orphanages, and
- (d) single or 2 stage systems in all other cases.

3.2.4.4.(1) A single stage fire alarm system shall, upon the operation of any manual pull station or **fire detector**, cause an **alarm signal** to sound on all audible signal appliances in the system.

(2) A 2 stage fire alarm system shall

APPENDIX B

- (a) cause an **alert signal** to sound upon the operation of any manual pull station or **fire detector**,
 - (b) except for Group B, Division 2 **major occupancies**, automatically cause an **alarm signal** to sound if the **alert signal** is not acknowledged within 5 min of its initiation,
 - (c) have each manual pull station equipped so that the use of a key or other similar device causes an **alarm signal** to sound and continue to sound upon the removal of the key or similar device from the manual pull station, and
 - (d) in a **building** containing a **hotel**
 - (i) cause an **alarm signal** to sound in the initiating fire zone, and
 - (ii) cause an **alert signal** to sound throughout the **building** in accordance with the fire safety plan required for **buildings** in conformance with the provisions of the Ontario Fire Code made under the Fire Marshals Act.
- (3) Fire alarm systems in Sentences (1) and (2) are permitted to be zone coded so that, upon the operation of any manual pull station or **fire detector**,
- (a) a coded **alarm signal** is sounded for a single stage system or a coded **alert signal** is sounded for a 2 stage system indicating the zone of alarm initiation,
 - (b) the coded **alert signal** or **alarm signal** is repeated in its entirety not less than 4 times, and
 - (c) a continuous **alert signal** or **alarm signal** is sounded upon completion of the coded signals in Clause (b) and Sentence (4).
- (4) When a second manual pull station or **fire detector** is operated in a system in Sentence (3), in a zone other than that for which the first **alert signal** or **alarm signal** was sounded, the coded **alert signal** or **alarm signal** for the first zone shall be completed before the coded **alert signal** or **alarm signal** for the second zone is repeated not less than 4 times.

3.2.4.5.(1) Fire alarm and voice communication systems shall be installed in conformance with CAN/ULC-S524-M, “Standard for the Installation of Fire Alarm Systems”.

(2) Fire alarm systems shall be tested to ensure satisfactory operation in conformance with CAN/ULC-S537-M, “Standard for the Verification of Fire Alarm System Installations”.

3.2.4.6.(1) Required fire alarm systems shall be designed so that when an **alarm signal** is activated, it cannot be silenced automatically for at least

- (a) 5 min for **buildings** not required to be equipped with an annunciator,
- (b) 3 min for hospitals only, and
- (c) 20 min for all other **buildings**.

(2) Except as permitted in Sentences 3.2.4.22.(2) and (3), a required fire alarm system shall not incorporate manual silencing switches other than those installed inside the fire alarm control unit.

3.2.4.7.(1) Where a fire alarm system is required to be installed, and a single stage system is provided, the system shall be designed to notify the fire department in conformance with Sentence (3) that an **alarm signal** has been initiated in

- (a) Group A **occupancies** having an **occupant load** of more than 300,
- (b) Group B **occupancies**,
- (c) Group F, Division 1 **occupancies**,
- (d) **buildings** regulated by the provisions of Subsection 3.2.6., or
- (e) **buildings** containing **interconnected floor space** required to conform to Articles 3.2.8.3. to 3.2.8.11.

(2) Where a fire alarm system is required to be installed and a 2 stage system is provided, the system shall be designed to notify the fire department in conformance with Sentence (3) that an **alert signal** has been initiated.

- (3) Except as permitted in Sentence (4), signals to the fire department shall be by way of
 - (a) the municipal fire alarm system,
 - (b) an independent central station conforming to NFPA-71, "Installation, Maintenance, and Use of Central Station Signaling Systems", or
 - (c) a proprietary control centre conforming to NFPA-72D, "Installation, Maintenance, and Use of Proprietary Protective Signaling Systems".

(4) When the facilities in Sentence (3) are not available in the municipality in which the **building** is to be built, an independent system is permitted to be used to transmit signals to the fire department.

(5) Where a required fire alarm system has been installed with no provisions to transmit a signal to the fire department as indicated in Sentences (2), (3) and (4), a legible, permanently-mounted notice shall be posted at each manual pull station requesting that the fire department be notified and including the telephone number of that department.

3.2.4.8.(1) Except as permitted in Sentences (2) to (4), an annunciator shall be installed in a location that is readily accessible to fire fighters entering the **building** and be in close proximity to a **building** entrance that faces a **street** or an access route for fire department vehicles that complies with Sentence 3.2.5.6.(1), and the annunciator shall have separate zone indicators of the actuation of the alarm initiating devices in each

- (a) **floor area** so that the coverage for each zone is not more than 2 000 m²,
- (b) **fire compartment** required to be separated by vertical **fire separations** having a **fire-resistance rating** of not less than 2 h, other than **dwelling units** described in Subsection 3.3.4.(*the relevant portion of Subsection 3.3.4. is Clause 3.3.4.2.(2)(c).*),
- (c) shaft required to be equipped with **fire detectors**,
- (d) air handling system required to be equipped with **smoke detectors**,
- (e) **contained use area**,
- (f) **impeded egress zone**,
- (g) zone required in Sentence 3.3.3.6.(6), and
- (h) **fire compartment** required in Sentence 3.3.3.7.(2).

(2) An annunciator need not be provided for a fire alarm system when not more than 1 zone indicator is required in Sentence (1).

(3) When an annunciator is not installed as part of a required fire alarm system in conformance with Sentence (1), a visual and audible trouble signal device shall be provided inside the main entrance of the **building** to indicate the status of the system.

(4) The requirements in Sentence (1) are waived in a **building** that has an aggregate area for all **storeys** of not more than 2 000 m² and is not more than 3 **storeys** in **building height**.

(5) Where a sprinkler system is used in lieu of **heat detectors** in conformance with Article 3.2.4.16., the requirements for zone indication in Clauses (1)(a) and (b) are waived provided the actuation of the alarm initiating devices is indicated on the annunciator in conformance with the zone indication requirements for the sprinkler system.

(6) In a **building** containing a **hotel** in which a trouble signal sounding device has a silencing switch, a trouble light shall be installed in the main reception area or other continually-supervised location.

(7) In a nursing home, a remote audiovisual fire alarm trouble signal shall be located at the main nursing station.

3.2.4.9. Electrical supervision shall be provided for required fire alarm systems.

3.2.4.10.(1) **Fire detectors** required in this Article shall be connected to the fire alarm system.

APPENDIX B

(2) Except as provided in Article 3.2.4.16., where a fire alarm system is required, **fire detectors** shall be installed in

- (a) storage rooms not within **dwelling units**,
- (b) **service rooms** not within **dwelling units**,
- (c) janitors' rooms,
- (d) elevator and dumbwaiter shafts, and
- (e) rooms where hazardous products are to be used or stored.

3.2.4.11. Except as provided in Article 3.2.4.16., where a fire alarm system is required, **heat detectors** shall be installed

- (a) in every room in portions of **buildings** classified as Group A, Division 1 or Group B **major occupancy** other than sleeping rooms,
- (b) except in a **hotel**, in every **suite**, and every room not located within a **suite**, in portions of **buildings** classified as Group C **major occupancy** and more than 3 **storeys** in **building height**, and
- (c) in a **hotel**, in every room in a **suite** and in every room not located within a **suite**, other than saunas, refrigerated areas and swimming pools.

3.2.4.12.(1) Where a fire alarm system is required, **smoke detectors** shall be installed in

- (a) every sleeping room and corridor in portions of **buildings** classified as Group B **major occupancy**,
- (b) every room in a **contained use area** and corridors serving those rooms,
- (c) every corridor in portions of **buildings** classified as Group A, Division 1 **major occupancy**,
- (d) every **public corridor** in portions of **buildings** classified as Group C **major occupancy**, and
- (e) every **exit** stair shaft.

3.2.4.13.(1) Where a fire alarm system is required, every recirculating air handling system shall be designed to prevent the circulation of smoke upon a signal from a duct-type **smoke detector** where the air handling system

- (a) serves more than 1 **storey**,
- (b) serves more than 1 **suite** in a **storey**,
- (c) serves more than 1 zone required in Sentence 3.3.3.6.(6), or
- (d) serves more than 1 **fire compartment** required in Sentence 3.3.3.7.(2).

3.2.4.14. Central vacuum cleaning systems in **buildings** required to be equipped with a fire alarm system shall be designed to shut down automatically upon actuation of the fire alarm system.

3.2.4.16.(1) **Heat detectors** in Articles 3.2.4.10. and 3.2.4.11. need not be provided where an automatic sprinkler system conforming to Sentences (2) to (5) and Article 3.2.5.13. is installed throughout the **floor area**.

(2) If an annunciator is required by Article 3.2.4.8., automatic sprinkler systems referred to in Sentence (1) shall be equipped with waterflow detecting devices so that each device serves

- (a) not more than one **storey**, and
- (b) an area on each **storey** that is not more than system area limits as specified in NFPA 13, "Installation of Sprinkler Systems".

(3) Waterflow detecting devices required by Sentence (2) shall be connected to initiate an **alert signal** or an **alarm signal** on the fire alarm system.

(4) The actuation of each waterflow detecting device required by Sentence (2) shall be indicated separately on the fire alarm system annunciator.

(5) The sprinkler system referred to in Sentence (1) shall be electrically supervised to indicate a trouble signal on the **building** fire alarm system annunciator for each of the following:

- (a) movement of a control valve handle,
- (b) loss of excess water pressure required to prevent false alarms in a wet pipe system,
- (c) loss of air pressure in a dry pipe system,
- (d) loss of air pressure in a pressure tank,
- (e) a significant change in water level in any water storage container used for fire fighting purposes,
- (f) loss of electrical power to any automatically starting electrical fire pump, and
- (g) a temperature approaching the freezing point in any dry pipe valve enclosure or water storage container used for fire fighting purposes.

3.2.4.17.(1) Except as permitted in Sentences (3) and (4), a manual pull station shall be installed on every **floor area** near every required **exit**.

(2) In a **building** containing a **hotel**, a manual pull station shall also be installed in the main reception area.

(3) In Group C apartment **buildings**, if a pull station is not installed on a **floor area** in accordance with Sentence (1),

- (a) a manual pull station shall be installed in every **dwelling unit** in the **floor area** near each egress door leading from the **dwelling unit**,
- (b) **smoke detectors** shall be installed in the **floor area** in **public corridors** and stairwells, and
- (c) **fire detectors** shall be installed in the **floor area** in all common public areas and in rooms not located within **dwelling units**.

(4) In **floor areas** where the manual pull stations are located in **dwelling units**, a legible sign stating "FIRE ALARM PULL STATIONS LOCATED IN APARTMENT UNITS" shall be posted near every **exit** in a **public corridor**.

3.2.4.18.(1) **Alert signals** and **alarm signals** shall be readily distinguishable from each other and from other signals which may be sounded in the **building**.

(2) In a 2 stage fire alarm system described in Sentence 3.2.4.4.(2), the same audible signal appliances are permitted to be used to sound the **alert signals** and the **alarm signals**.

(3) If audible signal appliances with voice reproduction capabilities are intended for paging and similar voice message use, other than during a fire emergency, they shall be installed so that **alert signals** and **alarm signals** take priority over all other signals.

(4) Audible signal appliances forming part of a fire alarm or voice communication system shall not be used for playing music or background noise.

(5) In a **building** or portion thereof intended for use primarily by persons with hearing impairments, visual signal appliances shall be installed in addition to audible signal appliances.

3.2.4.19.(1) Audible signal appliances forming part of a required fire alarm system shall be installed in a **building** so that **alert signals**, **alarm signals** and voice messages can be heard intelligibly throughout the **floor area** in which they are installed.

(2) If a fire alarm system is required, audible signal appliances shall be located in a **service space** referred to in Sentence 3.2.1.1.(7) and shall be connected to the fire alarm system.

3.2.4.20.(1) Visual signal appliances required in Sentence 3.2.4.18.(5) shall be installed in a **building** so that the signal from not less than one appliance is visible throughout the **floor area** or portion thereof in which they are installed.

(2) In addition to the requirements for fire alarm and detection systems in this Subsection, visual signals from **smoke detectors** required in sleeping rooms of Group B **occupancy** shall be provided so that staff serving those rooms can easily identify the room or location of fire alarm initiation.

3.2.4.21.(1) **Smoke alarms** conforming to CAN/ULC-S531-M, “Standard for Smoke Alarms” shall be installed in each **dwelling unit** and, except for **institutional occupancies** required to have a fire alarm system, in each sleeping room not within a **dwelling unit**.

(2) **Smoke alarms** within **dwelling units** shall be installed between each area containing sleeping rooms and the remainder of the **dwelling unit**, and where the sleeping rooms are served by hallways, the **smoke alarms** shall be installed in the hallways.

(3) **Smoke alarms** shall be installed on or near the ceiling.

(4) **Smoke alarms** shall be installed with permanent connections to an electrical circuit and shall have no disconnect switches between the overcurrent device and the **smoke alarm**.

(5) Where more than one **smoke alarm** is required in a **dwelling unit**, they shall be wired so that the actuation of one alarm will cause all alarms within the **dwelling unit** to sound.

3.2.4.22.(1) A voice communication system required in Subsection 3.2.6.(see Article 3.2.6.13) shall consist of

- (a) a 2-way communication system in each **floor area**, with connections to the central alarm and control facility and to the mechanical control centre, and
- (b) loudspeakers operated from the central alarm and control facility which are designed and located so as to be heard in all parts of the **building**, except that this requirement does not apply to elevator cars.

(2) The voice communication system referred to in Sentence (1) shall include provision for silencing the **alarm signal** in a single stage fire alarm system when voice messages are being transmitted, but only after the **alarm signal** has sounded initially for not less than

- (a) 30 s in Group B, Division 2 **major occupancies**, and
- (b) 1 min in all other **occupancies**.

(3) The voice communication system referred to in Sentence (1) shall include provision for silencing the **alert signal** and the **alarm signal** in a 2 stage fire alarm system when voice messages are being transmitted, but only after the **alert signal** has sounded initially for not less than

- (a) 30 s in Group B, Division 2 **major occupancies**, and
- (b) 1 min in all other **occupancies**.

(4) The voice communication system referred to in Clause (1)(b) shall be designed so that voice instructions can be transmitted selectively to any zone or zones while maintaining an **alert signal** or **alarm signal** to the other zones in the **building**.

(5) The 2-way communication system referred to in Clause (1)(a) shall be installed so that emergency telephones are located in each **floor area** near **exit** stair shafts.

3.2.5.5. *The technical requirements of Article 3.2.5.5. are essentially identical to the requirements contained in Sentence 3.2.5.2.(1) of Appendix A, “1986 Building Code References”.*

3.2.5.6. *The technical requirements of Article 3.2.5.6. are essentially identical to the requirements contained in Sentences 3.2.5.2.(2) to (5) of Appendix A, “1986 Building Code References”.*

3.2.5.7. *The technical requirements of Article 3.2.5.7. are essentially identical to the requirements contained in Sentence 3.2.5.2.(6) of Appendix A, “1986 Building Code References”.*

3.2.5.13.(1) Except as provided in Sentences (2) and (3), where a sprinkler system is required, it shall be designed, constructed, installed and tested in conformance with NFPA 13, “Installation of Sprinkler Systems”.

(2) Where a **building** contains fewer than 9 sprinklers, the water supply for such sprinklers is permitted to be supplied from the domestic water system for the **building** provided the required flow and pressure for the sprinklers can be met by the domestic system.

(3) Where a water supply serves both a sprinkler system and a system serving other equipment, control valves shall be provided so that either system can be shut off independently.

(4) Open grid and translucent ceilings located below sprinkler systems shall be installed in conformance with NFPA 13, "Installation of Sprinkler Systems", paragraphs 4-4.14 and 4-4.15.

(5) Where a sprinkler system has one or more electrically supervised control valves in order to meet the requirements of this Article, each valve shall be equipped with an electrically supervised switch for transmitting a signal for individual annunciation in the event of movement of the valve handle and the same annunciator panel may be utilized for supervision of valves in both the standpipe and sprinkler systems.

3.2.5.14.(1) **Combustible** sprinkler piping shall be used only for wet systems in **residential occupancies** and other light hazard **occupancies**.

(2) **Combustible** sprinkler piping shall meet the requirements of ULC C199P-M, "Guide for the Investigation of Combustible Piping for Sprinkler Systems".

(3) Except as permitted in Sentence (4), **combustible** sprinkler piping shall be separated from the area served by the sprinkler system and from any other **fire compartment** by ceilings, walls, or soffits consisting of, as a minimum, lath and plaster, gypsum board not less than 9.5 mm thick, plywood not less than 13 mm thick, or a suspended membrane ceiling with lay-in panels or tiles and steel suspension grids, with the lay-in panels or tiles having a mass of not less than 1.7 kg/m².

(4) Where **combustible** sprinkler piping is located above a ceiling, openings in the ceiling that are unprotected through the ceiling shall

- (a) have an individual area not more than 0.71 m²,
- (b) have no dimension greater than 1200 mm, and
- (c) be located so that the distance between the edge of the opening and the nearest sprinkler head is not more than 300 mm.

3.2.5.15.(1) An automatic sprinkler system shall be installed in a **service space** referred to in Sentence 3.2.1.1.(7) if flooring for access within the **service space** is other than catwalks.

(2) The sprinkler system required in Sentence (1) shall be equipped with waterflow detecting devices serving not more than one **storey**.

(3) The waterflow detecting devices required by Sentence (2) shall be connected to the fire alarm system, if required, to

- (a) initiate an **alert signal** or **alarm signal**, and
- (b) indicate separately on the fire alarm system annunciator the actuation of each device.

(4) If a **building** is required to be **sprinklered**, sprinkler protection need not be provided in computer room floors

- (a) if the electrical communication wiring and cable sheathes do not convey flame or continue to burn for more than 1 min when tested in conformance with the Vertical Flame Test in Clause 4.11.1. of CSA-C22.2 No. 0.3, "Test Methods for Electrical Wires and Cables" (FT1 Rating), or they comply with the test requirements in Clause 3.1.5.17.(1)(a) (FT4 Rating) or in Subclause 3.5.4.3.(1)(a)(ii), (FT6 Rating), and
- (b) in **noncombustible buildings**, if the **combustible** components are limited to those permitted in Subsection 3.1.5.

(5) Where a room, chute or bin is required to be **sprinklered** as indicated in Sentence 3.3.4.3.(1), Article 3.5.2.7. and Sentence 3.5.3.3.(6), the sprinklers may be supplied with water from the fire standpipe system provided that

- (a) except for a chute, not more than 8 sprinkler heads are required to protect any room or bin based on a maximum coverage of 12 m² per sprinkler head,
- (b) the standpipe riser is
 - (i) not less than 6 in (150 mm) in diameter, or
 - (ii) hydraulically designed to meet combined water supply as specified in Clause (c),
- (c) the water supply for a standpipe system, pumping capability and water storage facility, if required, is increased to supply 95 L/min for each sprinkler head over and above the requirements for the standpipe system up to maximum 760 L/min
- (d) a waterflow detecting device is installed in the sprinkler main adjacent to the point of connection to the standpipe riser, and
- (e) the activation of each waterflow detecting device in Clause (d) shall be indicated separately on the fire alarm system annunciator.

3.2.5.16.(1) Fire department connections for standpipe and hose systems shall conform to the requirements in Article 3.2.9.5.

(2) Fire department connections for sprinkler systems shall conform to the requirements for fire department connections for standpipe systems contained in Article 3.2.9.5., except that in Sentence 3.2.9.5.(8), the sign shall display the word **SPRINKLER**.

3.2.6. *This Section contains additional requirements for high buildings which is not all relevant to the Fire Code reference. Information detailing which buildings are classified as high buildings is relevant though and is provided in Sentence 3.2.6.1.(1).*

3.2.6.1.(1) This Subsection applies to

- (a) every **building** of Group A, D, E or F **major occupancy classification** that is more than
 - (i) 36 m high, measured between **grade** and the floor level of the top **storey**, or
 - (ii) 18 m high, measured between **grade** and the floor level of the top **storey**, and in which the cumulative or total **occupant load** on or above any **storey** above **grade**, other than the **first storey**, divided by 1.8 times the width in meters of all **exit** stairs at that **storey**, exceeds 300 persons,
- (b) every **building** containing a Group B **major occupancy** in which the floor level of the highest **storey** of that **major occupancy** is more than 18 m above **grade** or every **building** containing a **floor area** or part of a **floor area** located above the third **storey** designed or intended as a Group B, Division 2 **occupancy**, and
- (c) every **building** containing a Group C **major occupancy** whose floor level is more than 18 m above **grade**.

3.2.6.2. *Article 3.2.6.2. provides comprehensive requirements for smoke control in high buildings. The alternative retrofit requirements provided in Sentence 9.6.2.16.(2) of the Fire Code are much easier to carry out and will generally be the preferred method of satisfying the smoke control requirements of the Fire Code. For this reason, the details of Article 3.2.6.2. of the Building Code are not being provided here. Comparable information is available in the current Building Code.*

3.2.6.4.(1) *This Sentence requires that the sprinkler system water flow and supervisory signals in high buildings be transmitted automatically to the on-site central alarm and control facility and to the fire department or a central station.*

3.2.6.8.(1) Manual emergency recall operation shall be provided for all elevators serving **storeys** above the **first storey**.

(2) Key-operated switches for emergency recall described in Sentence (1) shall be provided in a conspicuous location at each elevator lobby on the recall level and at the central alarm and control facility required in Article 3.2.6.12.

(3) In-car emergency switches shall be provided in all elevator cars.

(4) Keys to operate the switches required by Sentence (2) and (3) shall be provided in a suitably identified box conspicuously located on the outside of an elevator shaft near the central alarm and control facility required in Article 3.2.6.12., and an additional key, or keys, shall be kept at the central alarm and control facility.

(5) Automatic emergency recall operation shall be provided for all elevators serving **storeys** above the **first storey** in unsprinklered **buildings**.

(6) The automatic emergency recall feature in Sentence (5) shall be actuated by

- (a) **smoke detectors** installed in each elevator lobby on each **storey**, or
- (b) the **building** fire alarm system.

(7) **Smoke detectors** in Sentence (6) shall be designed as part of the **building** fire alarm system.

3.2.6.9.(1) Not less than one elevator shall be provided for use by fire fighters in conformance with Sentences (2) to (6).

(2) The elevator required in Sentence (1) shall have a usable platform area not less than 2.2 m² and shall be capable of carrying a load of 900 kg from a **street** floor landing to the top floor that it serves in 1 minute, except that in every **building** which is a Group C **major occupancy** apartment **building**, the elevator shall be able to accommodate a stretcher in the horizontal position.

(3) Except when Measure K of Chapter 3, “Measures for Fire Safety in High Buildings”, of the Supplement to the NBC 1990 is used, each elevator for use by fire fighters shall

- (a) be provided with a **closure** at each shaft opening so that the interlock mechanism and associated wiring is operational for a period of at least 1 h when the assembly is subjected to the standard fire exposure described in CAN4-S104-M, “Standard Method for Fire Tests of Door Assemblies”,
- (b) be protected with a vestibule containing no **occupancy**, and separated from the remainder of the **floor area** by a **fire separation** having a **fire-resistance rating** of not less than 45 min, or
- (c) be protected with a corridor containing no **occupancy** and separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** of not less than 1 h.

(4) Except as provided in Sentence (5), an elevator required in Sentence (1) shall be capable of providing transportation from the **street** floor to every floor normally served by the elevator system that is above **grade** in the **building**.

(5) Where it is necessary to change elevators to reach any floor referred to in Sentence (4), the system shall be designed so that not more than one change of elevator is required when travelling from a **street** floor to any floor in the **building**.

(6) Electrical conductors for the operation of the elevator referred to in Sentence (1) shall be

- (a) installed in **service spaces** conforming to Section 3.5 that do not contain other **combustible** material, or
- (b) protected against exposure to fire from the service entrance of the emergency power supply, or the normal service entrance of the normal power supply to the equipment served, to ensure operation for a period of 1 h when subjected to the standard fire exposure described in CAN4-S101-M, “Standard Methods of Fire Endurance Tests of Building Construction and Materials”.

3.2.6.12. *The central alarm and control facility required in 3.2.6.12. provides a means to control and operate the voice communication system, the fire alarm and other equipment that is necessary to the life safety of the building. This facility is usually located near the main entrance to the building and is accessible to fire fighters.*

3.2.6.13. When the height of a **building**, measured between **grade** and the **floor** of the top **storey** is more than 36 m, or in **buildings** containing a **floor area** above the third **storey** and designed or intended as a Group B, Division 2 **occupancy**, a voice communication system or systems conforming to Article 3.2.4.22. shall be provided.

3.2.7.3.(2) Emergency lighting to provide an average level of illumination at floor or catwalk level of not less than 10 lx (0.9 ft-candles) shall be included in a **service space** referred to in Sentence 3.2.1.1.(7).

3.2.7.4.(1) An emergency power systems shall be provided to maintain the emergency lighting required by this Subsection from a power source such as batteries or generators that will continue to supply power in the event that the regular power supply to the **building** is interrupted and be so designed and installed that upon failure of the regular power it will assume the electrical load automatically for a period of

- (a) 2 h for all **buildings** within the scope of Subsection 3.2.6.,
- (b) 1 h for **buildings** of Group B **major occupancy** classification that are not within the scope of Subsection 3.2.6., and
- (c) 30 min for **buildings** of all other **occupancies**.

3.2.7.5. Except as provided in Articles 3.2.7.6. and 3.2.7.7., emergency power systems shall be installed in conformance with CAN/CSA C282-M, "Emergency Electrical Power Supply for Buildings".

3.2.7.6. *Not relevant to Fire Code reference.*

3.2.7.7.(1) Where a liquid or gas fuel-fired engine or turbine for an emergency electric power supply is dependent on a fuel supply from outside the **building**, such fuel supply shall be provided with a suitably-identified separate shut-off valve outside the **building**.

(2) Where pipes for exhaust gases from emergency power systems penetrate required **fire separations**, they shall be enclosed in a separate service space having a **fire-resistance rating** equal to that of the penetrated floor assembly, but not less than 45 min.

3.2.7.8.(1) An emergency power supply conforming to Sentences (2), (3) and (4) shall be provided for required fire alarm systems.

(2) The emergency power supply required in Sentence (1) shall be from

- (a) a generator conforming to Article 3.2.7.4.,
- (b) batteries, or
- (c) a combination thereof.

(3) The emergency power supply required in Sentence (1) shall be capable of providing supervisory power for not less than 24 h and emergency power under full load for not less than

- (a) 2 h for **buildings** required to conform to Subsection 3.2.6.,
- (b) 1 h for **buildings** classified as Group B **major occupancy** that are not within the scope of Subsection 3.2.6.,
- (c) 5 min for **buildings** not required to be equipped with an annunciator, and
- (d) 30 min for all other **buildings**.

(4) The emergency power supply required in Sentence (1) shall be designed so that there will be automatic transfer to emergency power in the event of a failure of the normal power source.

(5) An emergency power supply shall be provided for the voice communication system required by Article 3.2.6.13. and shall be capable of maintaining operation of the system for not less than 2 h.

(6) The emergency power supply for the voice communication system required by Sentence (5) shall be capable of full operation immediately upon the failure of the normal source of power.

(7) If the emergency power supply required by Sentence (5) is provided by batteries, the batteries shall be sized to provide the total energy consumed by the maximum possible electrical supervision current plus the trouble signal current for a period of 24 h followed by 30 min of continuous voice communication.

3.2.8. Details of proper interconnected floor space design as referenced in Subsection 3.2.8. are quite comprehensive and can be found in the current edition of the Building Code.

3.2.9.1.(1) Except as provided in Sentence (3), a standpipe and hose system with 38 mm diameter hose connections shall be installed

- (a) in every **building** that is
 - (i) more than 3 **storeys** in **building height** or more than 14 m in height measured between **grade** and the ceiling level of the uppermost **storey**, or
 - (ii) greater in **building area** than the area shown in Table 3.2.9.A. for the applicable **building height** shown in the Table where the **building** is not **sprinklered** and does not exceed 14 m in height measured between **grade** and the ceiling level of the top **storey**, and
- (b) in every **basement** of a **building** that
 - (i) requires a standpipe system above **grade**, or
 - (ii) has more than one **storey** below **grade**, except for a **service room** less than 50 m² in area located on the lowest **storey**.

(2) In addition to the requirements in Sentence (1), 65 mm diameter hose connections shall be provided in **buildings** which

- (a) exceed 25 m in height, measured between **grade** and the ceiling level of the top **storey**, or
- (b) exceed 4000 m² in **building area**.

(3) A standpipe need not be installed in a **storage garage** conforming to Article 3.2.2.60. provided the **building** is not more than 15 m in height.

(4) Pipes supplying standpipe systems shall be sized conforming to Table 3.2.9.B. or be hydraulically designed to meet the requirements of Article 3.2.9.3.

APPENDIX B

TABLE 3.2.9.A.
Forming Part of Sentence 3.2.9.1.(1)

Occupancy Classification	Building Area , m ²		
	1 storey	2 storeys	3 storeys
A	2500	2000	1500
B (except hospitals without detention quarters)	2000	1500	1000
Hospitals	500	500	500
C	2000	1500	1000
D	4000	3000	2000
F, Division 1	1000	1000	1000
F, Division 2	2000	1500	1000
F, Division 3	3000	2000	1000
Column 1	2	3	4

TABLE 3.2.9.B.
Forming Part of Sentence 3.2.9.1.(4)

Size of Building		Minimum Nominal Size of Piping, mm		
Building Height ⁽¹⁾	Building Area	Standpipe Risers ⁽³⁾	From Street Main to Standpipe Riser	Lateral Extensions ⁽²⁾
Up to 25 m	Up to and including 4000 m ²	50	50	50
	More than 4000 m ²	100	100	100
Over 25 m	Unlimited Area	150	150	150
Column 1	2	3	4	5

Notes to Table 3.2.9.B.:

- ⁽¹⁾ A mechanical penthouse that exceeds 50 m² in **floor area** shall be considered 3.7 m in height of **building** for the purpose of this Table.
- ⁽²⁾ Lateral extension means piping from the first riser to the intermediate or last riser.
- ⁽³⁾ Riser means vertical pipe supplying water to one or more fire hose stations.

TABLE 3.2.9.C
Forming Part of Sentence 3.2.9.1.(5)

Piping Runouts to Fire Hose Cabinets Containing 65 mm Hose Connections		
Riser Size, mm	Number of Cabinets	Minimum Size of piping, mm
100	1	75
	2 or more	100
150	1	75
	2 or 3	100
	4 or more	150
Column 1	2	3

(5) Pipe, connecting one or more hose stations containing 65 mm diameter hose connections to a riser or lateral extension in any single **storey**, shall be of a size conforming to Table 3.2.9.C. or be hydraulically designed to meet the requirements of Article 3.2.9.3.

3.2.9.2.(1) Hose stations shall be located

- (a) so that every portion of the **building** can be reached by a hose stream and is within 3 m of a hose nozzle when 30 m of hose is extended,
- (b) not more than 5 m from every required **exit** serving a **floor area**, except
 - (i) for the **first storey**, or
 - (ii) where additional hose stations are required to achieve full coverage of the **floor area**, and
- (c) in a conspicuous location where they are not likely to be obstructed.

(2) Except as permitted in Sentence (12), hose stations shall also be located so that it is not necessary to penetrate an **exit** stairwell to provide full design coverage.

(3) A hose station located on one side of a **horizontal exit** or **firewall** shall be considered to serve only the **floor area** on that side of such **exit** or **firewall**.

(4) Hose connections shall be provided with

- (a) a sufficient clearance so that there is no interference with the prompt use of the hose valves, or standard fire department hose key and adapter, and
- (b) at least 25 mm clearance between any part of the cabinet and the handle of the valve.

(5) Hose stations shall be within 750 mm to 1500 mm from the floor.

(6) Suitable means shall be provided to prevent the pressure on the hose exceeding 620 kPa (gauge) when flowing.

(7) Hose valves shall be provided with suitable connections installed so that leakage past the valve seat will be carried off.

(8) Every hose station shall be equipped with a hose rack filled with not more than 30 m of 38 mm fire hose and the hose rack and fire hose shall be

- (a) **listed**, or
- (b) approved by the Factory Mutual Research Corporation.

(9) The hose at hose stations shall be equipped with a shut-off type adjustable spray to straight stream nozzle.

(10) Where a 65 mm hose valve is provided in a hose station, it shall be equipped with a cap and chain for the use of a fire department.

(11) Couplings for fire hose or other fittings used in connection with such couplings shall conform to ULC S513, "Standard for Threaded Couplings for 38 mm and 65 mm Fire Hose", or ULC S543, "Standard for Internal Lug Quick Connect Couplings for Fire Hose".

(12) Standpipes and hoses shall be installed for each roof enclosure exceeding 50 m² in **floor area**.

(13) Every hose cabinet shall be

- (a) provided with a transparent viewing panel at least 5 mm thick constituting at least 70 percent of the door area, or
- (b) clearly and conspicuously labeled with the words **FIRE HOSE CONNECTION**, with letters at least 150 mm in height with 19 mm stroke.

(14) Hose rack, nozzle, fire hose and valves shall be in a hose cabinet except that in a Group F **occupancy**, a hose cabinet need not be provided.

(15) Hose cabinets shall be of sufficient size to contain the equipment in Sentence (14) and a **listed** fire extinguisher.

APPENDIX B

(16) Every hose cabinet shall be located so that its door, when fully opened, will not obstruct the required width of a **means of egress**, and when connected to a dry standpipe system it shall be clearly identified with the words **DRY STANDPIPE SYSTEM**.

(17) Hose stations in a Group B, Division 1 **major occupancy** are permitted to be located in secure areas, or in lockable cabinets provided that

- (a) identical keys for all cabinets are located at all guard stations, or
- (b) electrical remote release devices are provided and are connected to an emergency power supply.

3.2.9.3.(1) Except for Sentence (2), standpipe systems shall be wet and directly connected to an adequate source of water.

(2) Where freezing of piping may occur, a dry standpipe system may be provided and so arranged through the use of **listed** devices to automatically admit water to the system by opening of a hose valve and transmit a signal to an attended location.

(3) Where the standpipe system for a **building** requires 38 mm diam hose connections in conformance with Sentence 3.2.9.1.(1), the system shall

- (a) be equipped with hose stations having one 38 mm diam hose valve, and
- (b) have a water supply sufficient to provide a minimum flow of 380 L/min for at least 30 min at a pressure of at least 450 kPa (gauge) measured at the two highest and most remote hose valves or hose connections, provided that not less than 190 L/min can be supplied from each of the two outlets simultaneously, and where the water main pressure is not sufficient to maintain these pressure and flow requirements, pumping equipment shall be provided to ensure that the pressure and flow requirements are met.

(4) Where the standpipe system for a **building** less than 84 m in height, measured between **grade** and the ceiling level of the top **storey**, is required to have 65 mm diameter hose connections, such standpipe system shall

- (a) be equipped with hose stations having one 38 mm and one 65 mm diam hose valve,
- (b) have pumping capacity sufficient to supply a minimum flow of 380 L/min for at least 30 minutes at a minimum discharge pressure of 450 kPa (gauge) to the two highest and most remote 38 mm hose valves, provided that not less than 190 L/min can be supplied from each of the two outlets simultaneously, and
- (c) have provision via the fire department connection to supply 1890 L/min to the two highest and most remote 65 mm hose valves, provided that not less than 945 L/min can be supplied from each of the two outlets simultaneously.

(5) The standpipe system for a **building** 84 m or more in height, measured between **grade** and the ceiling level of the top **storey** shall

- (a) be equipped with hose stations having one 38 mm and one 65 mm fire hose valve,
- (b) have pumping capacity sufficient to provide a minimum flow of 1890 L/min for at least 30 minutes at a minimum discharge pressure of 450 kPa (gauge) at the two highest and most remote 65 mm hose valves, provided that not less than 945 L/min can be supplied from each of the two outlets simultaneously, and
- (c) be served by at least two sources of water supply from a public water system.

(6) The residual water pressure at the design flow rate at the topmost outlet of the standpipe and hose system that is required to be installed in a **building** is permitted to be less than 450 kPa provided that

- (a) the **building** is **sprinklered** in conformance with the requirements of Sentence 3.2.5.13.(1),
- (b) the water supply at the base of the sprinkler riser is capable of meeting the design flow rate and pressure demand of the sprinkler system, including the inside and outside hose allowances, and

- (c) fire protection equipment is available to deliver, by means of the fire department connection, the full demand rate at a residual water pressure of 450 kPa at the topmost outlet of the standpipe and hose system.
- (7) A mechanical penthouse that exceeds 50 m² in **floor area** shall be considered a **storey** or 3.7 m in height of **building** for the purposes of Sentences (4), (5), (11) and (12).
- (8) Pumping equipment for standpipe systems shall start automatically on pressure drop and stop manually.
- (9) Pumps required to have a discharge pressure greater than 280 kPa (gauge) and their controllers shall be **listed** and labelled.
- (10) To permit maintenance of every pump serving a standpipe system, each pump shall be provided with a bypass complete with check valve and check valve isolating control valve having the same size as the main feeding the standpipe system.
- (11) A **building** 84 m or more in height, measured between **grade** and the ceiling level of the top **storey**, shall be provided with a standby fire pump capable of delivering a water supply as required in Sentence (5).
- (12) A **building** 84 m or more in height, measured between **grade** and the ceiling level of the top **storey**, shall be equipped with water storage capacity at the top of the **building** to supply a minimum flow of 1890 L/min for at least 30 minutes at a minimum discharge pressure of 450 kPa (gauge) to the two remote hose valves or hose connections, provided that not less than 945 L/min can be supplied from each of the two outlets simultaneously.
- (13) A standpipe connection shall be upstream of any water meter.
- (14) Standpipe risers shall
 - (a) be cross-connected at the bottom of each pressure zone, and
 - (b) where supplied by gravity tanks or pressure tanks, they shall also be cross-connected at the top and a check valve shall, if necessary, be provided at the base of every riser to prevent circulation.
- (15) An indicating control valve located inside a **building** or a post indicator valve located outside shall be provided for every water supply facility serving a standpipe system and shall be installed in an accessible location.
- (16) Check valves shall be installed to prevent water flow from a standpipe system through the fire department pumper connection and every water supply system.
- (17) Except for Article 3.2.9.4., where a water supply serves both a standpipe system and a system serving other equipment, control valves shall be provided so that either system can be shut off independently.
- (18) Sufficient control valves shall be provided to permit shutting off every standpipe riser without interrupting the water supply to other risers.
- (19) Every valve controlling a water supply to a standpipe system shall be in its normal operating position and shall be clearly identified.
- (20) Each valve controlling water supplies in a standpipe system, except for hose valves, shall be equipped with an electrically supervised switch for transmitting a signal for individual annunciation in the event of movement of the valve handle.
- (21) Pressure gauges shall be
 - (a) installed
 - (i) at every water supply connection,
 - (ii) at the highest point of every standpipe riser, and
 - (iii) before and after all pumps,
 - (b) connected by at least 6 mm diam pipe or tubing, and
 - (c) equipped with a shut-off valve.
- (22) Each standpipe riser shall be provided with drain valves piped to open drain.

APPENDIX B

- (23) A drain required in Sentence (22) shall be designed to
- (a) be free from freezing,
 - (b) allow complete draining of the system for repairs, and
 - (c) allow conducting of operational tests.

3.2.9.4.(1) Where piping serves both automatic sprinkler and standpipe systems, the requirements in Sentences (2) to (6) shall apply.

(2) Automatic sprinkler and standpipe connections shall be provided with independent electrically supervised control valves on each floor.

- (3) The control valves in Sentence (2) shall be
- (a) of the same size as the riser connection, and
 - (b) installed in a readily identifiable and accessible location not more than 3 m from the riser.

(4) Riser connections for hose stations and automatic sprinkler systems shall be located on the floor they serve.

(5) The required water demand for each floor shall be the required demand for the sprinkler system in Article 3.2.5.13. plus the demand required in Sentences 3.2.9.3.(3), (4) and (5).

(6) The minimum size of a riser shall be 6 in. or it shall be hydraulically designed to meet the requirements of Article 3.2.9.3.

3.2.9.5.(1) A standpipe system shall be served by at least one fire department connection.

(2) Fire department connections for standpipe systems shall be located so that the distance from a fire department connection to a hydrant does not exceed 45 m and is unobstructed.

- (3) Every fire department connection shall be
- (a) located on the outside of a **building** adjacent to a **street** or an access route, at least 300 mm and not more than 900 mm above ground level,
 - (b) provided with two 65 mm hose connections with female swivel hose couplings having hose threads conforming to the requirements of Sentence 3.2.9.2.(11),
 - (c) provided with sufficient clearance around the couplings to use a standard fire department hose key for tightening, and
 - (d) equipped with a cap or plug to protect the threads and to exclude foreign matter.

(4) Check valves shall be provided in every fire department connection or a single check valve shall be provided to shut one outlet when the other is in use.

(5) Shut-off valves shall not be installed in the fire department connection.

(6) An automatic drain valve shall be provided in the fire department connection at its lowest point, between the connection and the check valve.

(7) The fire department connection shall be designated by a sign having raised letters, at least 25 mm in size, cast on a metal plate or fitting.

(8) Except as provided in Sentence (9), the sign for the fire department connection shall display the word **STANDPIPE**.

(9) Where automatic sprinkler and standpipe systems are served by the same fire department connection, the word **STANDPIPE** and the word **SPRINKLER** shall be displayed.

3.2.9.6.(1) Pipe and tube used in standpipe systems shall

- (a) be designed to withstand a working pressure of not less than 1210 kPa (gauge), and
- (b) conform to the following standards:

- (i) ASTM A120, "Pipe, Steel, Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless, for Ordinary Uses",
 - (ii) ANSI Standard B36.10, "Welded and Seamless Wrought Steel Pipe",
 - (iii) ASTM B75, "Seamless Copper Tube", or
 - (iv) ASTM B251, "General Requirements for Wrought Seamless Copper and Copper-Alloy Tube".
- (2) Brazing alloy for standpipe systems shall conform to AWS Classification BCUP-3 of American Welding Society Specification a5.8-76, "Brazing Filler Metal".
- (3) The minimum wall thickness for ferrous piping for working pressures
- (a) up to 2070 kPa (gauge), shall be
 - (i) at least Schedule 40 pipe except that Schedule 30 pipe may be used for piping 8 in. and larger in size for threaded or cut groove connections, and
 - (ii) Schedule 10 pipe for sizes up to 5 in. pipe, the minimum wall thickness shall be 3.4 mm for 6 in. pipe, 4.8 mm for 8 in. and 10 in. pipes for welded or rolled groove connections, and
 - (b) over 2070 kPa (gauge), shall be at least Schedule 60 pipe or for sizes not subject to Schedule classification, at least "extra heavy" type.
- (4) Standard fittings shall be at least "extra heavy" type when the pressures may exceed 1210 kPa (gauge).
- (5) All pipe connections shall be
- (a) made by means of threaded, flanged or welding fittings, or
 - (b) **listed** for this service.
- (6) Where welded connections are used in a standpipe system, welding fittings shall be used.
- (7) Hangers and supports shall be
- (a) of a **listed** type so arranged that they will sustain the loads and retain the piping securely in position, and
 - (b) substantially supported from the building structure which must support the added load of the water-filled pipe plus a minimum of 115 kg applied at the point of hanging.
- (8) Supports for standpipe risers
- (a) shall be attached directly to the risers,
 - (b) shall be provided at
 - (i) the lowest level,
 - (ii) each alternate level above, and
 - (iii) the top of the risers, and
 - (c) above the lowest level, shall restrain the pipe to prevent movement by an upward thrust when flexible fittings are used.
- (9) Lateral runs from the standpipe to the hose valve which are over 460 mm in length shall be provided with hangers.
- (10) Horizontal standpipe runs shall be provided with hangers spaced at a maximum distance of 4.6 m.
- (11) Valves shall be "standard weight" for pressures up to 1210 kPa (gauge) and shall be "extra heavy" for pressures in excess of 1210 kPa (gauge), and shall be listed.
- (12) Hose valves shall be angle-type.
- (13) Valves controlling water supplies to standpipe systems shall be indicating type control valves.
- (14) When piping for standpipe and hose systems is identified or colour coded, such identification shall conform to CGSB 24-GP-3a "Code for Identification and Classification of Piping Systems".

APPENDIX B

3.2.9.7.(1) Standpipe systems, including yard piping, shall be tested hydrostatically at not less than 1380 kPa (gauge) pressure for 2 h, or at 345 kPa (gauge) in excess of the normal pressure when the normal pressure is in excess of 1 035 kPa (gauge).

(2) A flow test shall be conducted at the hydraulically most remote outlets to assure that the flow requirements in Sentences 3.2.9.3.(3), (4) and (5) are met.

(3) Piping between the fire department connection and the check valve in the inlet pipe shall be flushed with a sufficient volume of water so as to remove all construction debris and trash.

EXTRACTS FROM SECTION 3.3

3.3.1.3.(7) Two points of egress shall be provided from a **service space** referred to in Sentence 3.2.1.1.(7) if the area of the **service space** is more than 200 m² (2150 ft²), and the travel distance measured from any point in the **service space** to a point of egress is more than 25 m.

3.3.1.22. Illuminated signs conforming to Sentences 3.4.5.1.(3) and (5) shall be provided to indicate the direction to egress points in a **service space** referred to in Sentence 3.2.1.1.(7).

3.3.3.6.(6) This Sentence deals with zone separations in unsprinklered hospitals and nursing homes.

3.3.3.7.(2) This Sentence deals with zone separations in sprinklered hospitals and nursing homes.

3.3.4.2.(2) Floor assemblies within a **dwelling unit** need not be constructed as **fire separations** provided the distance between the lowest floor level and the uppermost floor level within the **dwelling unit** is not more than 6 m and provided that the **dwelling unit** is separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** of not less than

(c) 2 h where the **building** is not **sprinklered** and is more than 6 storeys in **building height**.

3.3.4.3.(1) Storage rooms not contained within a **suite**, for the use of tenants in **residential occupancies**, shall be **sprinklered** and separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** of not less than 1 h, except that a **fire-resistance rating** of the floor assembly is not required to be more than 45 min.

3.3.4.5. Except for **hotels**, a door opening onto a **public corridor** which provides access to **exit** from a **suite** shall be designed not to lock automatically.

EXTRACTS FROM SECTION 3.4

3.4.2.4.(3) Travel distance to an **exit** shall not be more than 50 m (164 ft) from any point in a **service space** referred to in Sentence 3.2.1.1.(7).

3.4.4.2.(1) Except as provided in Sentence (2), an **exit** from any **floor area** above or below the **first storey** shall not lead through a lobby.

(2) *The technical requirements of Sentence 3.4.4.2.(2) are essentially identical to the requirements contained in Sentence 3.4.4.1.(7) of Appendix A, "1986 Building Code References".*

3.4.4.4.(8) **Service spaces** referred to in Sentence 3.2.1.1.(7) shall not open directly into an **exit**.

3.4.5. *The technical requirements of Subsection 3.4.5. are essentially identical to the requirements contained in Articles 3.4.5.1. and 3.4.5.2. of Appendix A, “1986 Building Code References”.*

3.4.5.1.(3) **Exit** signs shall consist of red letters on a contrasting background or a red background with contrasting letters, with the letters having a 19 mm stroke and a height of at least

- (a) 114 mm when internally illuminated, and
- (b) 150 mm when externally illuminated.

(5) Where necessary, signs shall be provided to indicate the direction of egress in **public corridors** and passageways, and shall have the word **EXIT** or the words **EXIT/SORTIE** with a suitable arrow or pointer indicating the direction of egress, and the size of lettering shall conform to Sentence (3).

3.4.6.17.(1) Arabic numerals indicating the assigned floor number shall

- (a) except as required in Clause (e), be mounted permanently on the stair side of the wall at the latch side of doors to **exit** stair shafts,
- (b) be not less than 60 mm high, raised approximately 0.7 mm above the surface,
- (c) be located 1500 mm from the finished floor and not more than 300 mm from the door,
- (d) be contrasting in colour with the surface on which they are applied, and
- (e) be mounted permanently on the stair side and the floor side of doors to **exit** stair shafts that serve a **building** containing a **hotel**.

3.4.7.2. *The technical requirements of Article 3.4.7.2. are essentially identical to the requirements contained in Sentence 3.4.7.13.(3) of Appendix A, “1986 Building Code References”.*

3.4.7.3. *The technical requirements of Article 3.4.7.3. are essentially identical to the requirements contained in Sentences 3.4.7.13.(4) and (8) of Appendix A, “1986 Building Code References”.*

3.4.7.5. The technical requirements of Article 3.4.7.5. are essentially identical to the requirements contained in Sentences 3.4.7.13.(6), (7), (9) and (13) of Appendix A, “1986 Building Code References”.

3.4.7.6. *The technical requirements of Article 3.4.7.6. are essentially identical to the requirements contained in Sentences 3.4.7.13.(10) to (12) of Appendix A, “1986 Building Code References”.*

EXTRACTS FROM SECTION 3.5

3.5 *Section 3.5 has provisions that apply to attic, duct, crawl and shaft spaces and service rooms, mechanical penthouses and facilities contained therein.*

Service spaces are detailed in Subsections 3.5.3. and 3.5.4., and are required to be separated from the remaining floor area by fire-rated separations. Further details are provided in the current edition of the Building Code.

3.5.2.7. Except as provided in Sentence 3.5.3.3.(9), rooms for the temporary storage of **combustible** refuse such as garbage or waste paper shall be separated from the remainder of the **building** by a **fire separation** with a **fire-resistance rating** of not less than 1 h and be **sprinklered**.

APPENDIX B

3.5.3.3.(6) Sprinklers shall be installed at the top of each linen and refuse chute, at alternate floor levels and in the room or bin into which the chute discharges.

(9) A refuse chute shall discharge only into a room or bin separated from the remainder of the **building** by a **fire separation** with a **fire-resistance rating** of not less than 2 h.

3.5.4.2.(1) A **horizontal service space** that penetrates a required vertical **fire separation** shall be separated from the remainder of the **building** it serves in conformance with Sentence (2).

(2) Where a **horizontal service space** or other concealed is located above a required vertical **fire separation** other than a vertical shaft, such space need not be divided at the **fire separation** as required in Article 3.1.8.3. provided the construction between the space and the space below is constructed as a **fire separation** at least equivalent to that required for the vertical **fire separation**, except that where the vertical **fire separation** is not required to have a **fire-resistance rating** of more than 45 min, the **fire-resistance rating** is permitted to be not less than 30 min.

3.5.4.3.(1) The concealed space between the ceiling and floor or ceiling and roof used as a **plenum** need not conform to Sentence 3.1.5.14.(1) and Article 6.2.3.2. provided

- (a) all materials within the ceiling space have a **flame-spread rating** of not more than 25 and a smoke developed classification of not more than 50, except for
- (ii) electrical wires and cable that exhibit a flame spread of not more than 1.5 m, a smoke density of not more than 0.5 at peak optical density and a smoke density not more than 0.15 at average optical density when tested in conformance with the Flame and Smoke Test in the Appendix to CSA C22.2 No. 0.3, "Test Methods for Electrical Wires and Cables" (FT6 Rating),

EXTRACTS FROM SECTION 9.10

9.10.15.3. Fire stops shall be constructed of not less than 0.38 mm sheet steel, 6 mm asbestos board, 12.7 mm gypsum wallboard, 12 mm plywood, waferboard or strandboard, with joints having continuous support, 2 layers of 19 mm lumber with joints staggered, 38 mm lumber or materials conforming to Sentence 3.1.11.7.(1).

APPENDIX C

1994 Building Code References

This Appendix contains extracts from the 1994 Building Code (Regulation 61 of the Revised Regulations of Ontario, 1990, as it read on June 23, 1994, and includes O. Reg. 400/91, 158/93, 160/93 and 383/94) as referenced in Sections 9.8 and 9.9 in Division B of the Fire Code. The complete quote is provided wherever possible. In some cases, the Building Code reference is very lengthy and thus only the relevant portions have been reproduced. Information in *italics* contains editorial notes rather than direct quotes from the Building Code.

EXTRACTS FROM SECTION 3.1

3.1.4.6. *The requirements for heavy timber construction are essentially unchanged since 1990 and can be found in the current edition of the Building Code.*

3.1.5. *Subsection 3.1.5. deals with buildings that are required to be of noncombustible construction and the combustible elements that are allowed to be used in the construction of these buildings. This information can be found in the current Building Code and is therefore not reproduced in its entirety in this Appendix.*

3.1.5.3.(2) **Combustible** roof sheathing and roof sheathing supports installed above a concrete deck are permitted on a **building** required to be of **noncombustible construction** provided

- (a) the concrete deck is not less than 50 mm thick,
- (b) the height of the roof space above the deck is not more than 1 m,
- (c) the roof space is divided into compartments by fire stops in conformance with Article 3.1.11.5.,
- (d) openings through the concrete deck other than noncombustible roof drains and plumbing piping are protected by masonry or concrete shafts constructed as fire separations having a fire-resistance of not less than 1 h and extending from the concrete deck to not less than 150 mm above the adjacent roof sheathing,
- (e) the perimeter of the roof is protected by a noncombustible parapet extending from the concrete deck to not less than 150 mm above the adjacent sheathing, and
- (f) except as permitted in Clause (d), the roof space does not contain any building services.

3.1.5.6. Wood nailing elements attached directly to or set into a continuous **noncombustible** backing for the attaching of interior finishes, are permitted in a **building** required to be of **noncombustible construction** provided the concealed space created by the wood elements is not more than 50 mm thick.

3.1.5.19. *The technical requirements of this Article pertain to wires in computer room floors, and can be found in the current edition of the Building Code.*

3.1.7. *The technical requirements of Subsection 3.1.7, “Fire-Resistance Ratings”, are essentially identical to the requirements contained in Subsection 3.1.5. of Appendix A, “1986 Building Code References”.*

3.1.8.1. *The technical requirements of Article 3.1.8.1. are essentially identical to the requirements contained in Article 3.1.6.1. of Appendix A, “1986 Building Code References”.*

3.1.8.2. **Combustible construction** that abuts on or is supported by a **noncombustible fire separation** shall be constructed so that its collapse under fire conditions will not cause the collapse of the **fire separation**.

3.1.8.3. *The technical requirements of Article 3.1.8.3. are essentially identical to the requirements contained in Sentences 3.1.6.3.(1) and (3) of Appendix A, “1986 Building Code References”.*

3.1.8.4.(2) Except as provided in Article 3.1.8.10., the **fire-protection rating** of **closures** shall conform to Table 3.1.8.A. for the required **grade of fire separation**.

TABLE 3.1.8.A.
Forming Part of Sentence 3.1.8.4.(2)

Fire-Resistance Rating of Fire Separation, h	Required Fire-Protection Rating of Closure, h
3/4	3/4
1	3/4
1½	1
2	1½
3	2
4	3
Column 1	2

3.1.8.7.(1) Except as permitted by Article 3.1.8.8., a duct that connects 2 **fire compartments** or that penetrates an assembly required to be a **fire separation** shall be equipped with a **fire damper**.

(2) A **fire damper** required by Sentence (1) or a **fire damper** used as a **closure** in a **fire separation** shall have a **fire-protection rating** conforming to Sentence 3.1.8.4.(2).

3.1.8.8. *This Article deals with the waiving of fire dampers in fire separations. Comparable requirements can be found in the current Building Code.*

3.1.8.10.(1) Except as provided in Sentence (4), a door assembly having a **fire-protection rating** of not less than 20 min is permitted to be used as a **closure** in

- (a) a **fire separation** not required to have a **fire-resistance rating** more than 1 h and located between
 - (i) a public corridor and a suite,
 - (ii) a corridor and adjacent sleeping rooms, or
 - (iii) a corridor and adjacent classrooms, offices and libraries in Group A, Division 2 **major occupancies**, and
- (b) a **fire separation** not required to have a **fire-resistance rating** more than 45 min, located in a **building** not more than 3 **storeys** in **building height**.

(2) The requirements for **noncombustible** sills and **combustible** floor coverings in NFPA 80, “Fire Doors and Windows” do not apply to doors described in Sentence (1).

(3) Doors described in Sentence (1) shall have a clearance of not more than a 6 mm at the bottom and not more than 3 mm at the sides and top.

(4) *This Sentence applies to elementary and secondary schools only.*

3.1.8.11.(1) Except as provided in Sentences (2) to (5), every door in a **fire separation** shall be equipped with a self-closing device designed to return the door to the closed position after each use.

(2) Self-closing devices need not be provided on doors to freight elevators and dumbwaiters.

(3) *(This requirement applies to classrooms only.)*

(4) In a **building** that is not more than 3 **storeys** in **building height**, except for doors located in a dead-end portion of a corridor or in a corridor which serves a **hotel**, self-closing devices need not be provided on doors that are located between a **public corridor** and adjacent rooms or **suites** of Group D **occupancy**.

(5) *(This requirement applies to institutional occupancies only.)*

3.1.8.13. Except as permitted in Subsection 3.3.3. (*Note: Subsection 3.3.3. is relevant only to institutional occupancies*), every swing-type door in a **fire separation** shall be equipped with a positive latching mechanism designed to hold the door in the closed position after each use.

3.1.8.14. The technical requirements of Article 3.1.8.14. are essentially identical to the requirements contained in Sentences 3.1.6.10 off Appendix A, “1986 Building Code References”.

3.1.11.5.(1) Every unsprinklered concealed space within a ceiling or roof assembly of **combustible construction**, including attic spaces, shall be separated by construction conforming to Article 3.1.11.7. into compartments not more than

- (a) 600 m² in area with no dimension more than 60 m where the exposed construction materials within the space have a **flame-spread rating** of not more than 25, and
- (b) 300 m² in area with no dimension more than 20 m where the exposed construction materials within the space have a **flame-spread rating** of more than 25.

(2) Every concealed space in exterior cornices, mansard style roofs, balconies and canopies in which the exposed construction materials within the space have a **flame-spread rating** of more than 25 shall be separated by construction conforming to Article 3.1.11.7.

- (a) at the points where such concealed spaces extend across the ends of required vertical **fire separations**, and
- (b) so that the maximum dimension in any concealed space is not more than 20 m.

3.1.11.7.(1) Except as provided in Sentences (2) to (4), materials used to separate concealed spaces into compartments shall remain in place and prevent the passage of flames for a period of not less than 15 min when subjected to the standard fire exposure in CAN4-S101-M, “Standard Methods of Fire Endurance Tests of Building Construction and Materials”.

(2) Gypsum wallboard not less than 12.7 mm thick and sheet steel not less than 0.38 mm thick need not be tested in conformance with Sentence (1) provided all joints have continuous support.

(3) In **buildings** required to be of **noncombustible construction**, wood nailing elements described in Article 3.1.5.6. need not be tested in conformance with Sentence (1).

(4) In **buildings** permitted to be of **combustible construction**, and in **combustible** roof systems permitted by Sentence 3.1.5.3.(2), materials used to separate concealed spaces into compartments are permitted to be

- (a) solid lumber not less than 38 mm thick,
- (b) phenolic bonded plywood, waferboard or strandboard not less than 12.5 mm thick with joints supported, or
- (c) 2 thicknesses of lumber each not less than 19 mm thick with joints staggered, where the width or height of the concealed space is such that more than one piece of lumber not less than 38 mm thick is necessary to block off the space.

(5) Openings through materials referred to in Sentences (1) to (4) shall be protected to maintain the integrity of the construction.

(6) where materials referred to in Sentence (1) to (4) are penetrated by construction elements or by service equipment, fire stop materials shall be used to seal the penetration.

3.1.13. *Except for the following revisions, the technical requirements of Subsection 3.1.13. are essentially identical to the requirements contained in Subsection 3.1.11. of Appendix A, “1986 Building Code References”.*

APPENDIX C

3.1.13.2.(1) *This Sentence is essentially the same as Sentence 3.1.11.2.(1) in Appendix A, which establishes the permissible flamespread rating of interior surfaces, ranging from 25 to 150.*

(2) Except as permitted in Sentence (3), doors, other than those in Group A, Division 1 **occupancies**, need not conform to Sentence (1) provided they have a **flame-spread rating** of not more than 200.

(3) Doors within **dwelling units** need not comply with Sentences (1) and (2).

3.1.13.10. Where an exterior **exit** passageway provides the only **means of egress** from the rooms or **suites** it serves, the wall and ceiling finishes of that passageway, including the soffit beneath and the **guard** on the passageway, shall have a **flame-spread rating** not more than 25, except that a **flame-spread rating** of not more than 150 is permitted for up to 10% of the total wall area and for up to 10% of the total ceiling area.

3.1.16.1.(1) The **occupant load** of a **floor area** or part of a **floor area**, or of a **building** or part of a **building** not having a **floor area**, shall be based on

- (a) the number of seats in an **assembly occupancy** having fixed seats,
- (b) 2 persons per sleeping room or sleeping area in a **dwelling unit** or **suite**, and
- (c) the number of persons
 - (i) for which the area is designed, or
 - (ii) determined from Table 3.1.16.A. for **occupancies** other than those described in Clauses (a) and (b).

(2) Where a **floor area** or part thereof has been designed for an **occupant load** other than that determined from Table 3.1.16.A., a permanent sign indicating that **occupant load** shall be posted in a conspicuous location.

(3) For the purposes of this Article, **mezzanines**, tiers and balconies shall be regarded as part of the **floor area**.

(4) Where a room or group of rooms is intended for 2 or more **occupancies** at different times, the value to be used from Table 3.1.16.A. shall be the value which gives the greatest number of persons for the **occupancies** concerned.

(5) In dining, alcoholic beverage and cafeteria space, the maximum **occupant load** shall be designed by using an area per person of 0.6 m².

TABLE 3.1.16.A.
Forming Part of Article 3.1.16.1.

Type of Use of Building or Floor Area or Part Thereof	Area per Person, m ²
Assembly uses	
space with fixed seats	See Clause (1)(a)
space with nonfixed seats	0.75
<i>stages</i> for theatrical performances	0.75
space with nonfixed seats and tables	0.95
standing space	0.40
bowling alleys, pool and billiard rooms	9.30
reading or writing rooms or lounges	1.85
dining, alcoholic beverage and cafeteria space	1.10
exhibition halls other than those classified in Group E	2.80
Column 1	2

TABLE 3.1.16.A.
(continued)

Type of Use of Building or Floor Area or Part Thereof	Area per Person, m ²
Residential uses	
dwelling units	See Clause (1)(b)
Business and personal services uses	
personal service shops	4.60
offices	9.30
Mercantile uses	
basements and first storeys	3.70
second storeys having a principal entrance from a pedestrian thoroughfare or a parking area	3.70
dining, alcoholic beverage and cafeteria space	1.10
other <i>storeys</i>	5.60
Other uses	
cleaning and repair of goods	4.60
kitchens	9.30
storage	46.00
Column 1	2

3.1.16.2. The **occupant load** of a room in which a dance floor is situated shall be calculated in respect of that portion of the room that is not occupied by the dance floor.

3.1.16.3.(1) The **occupant load** of a **public pool**, except a **wave action pool**, shall be determined by the following formula:

$$\text{occupant load} = D/2.5 + S/1.4$$

where D = the water surface area in square metres of the part of the pool that is deeper than 1.35 m; and
where S = the water surface area in square metres of the part of the pool that is 1.35 m in depth or less.

(2) The **occupant load** of a **wave action pool** shall be determined by the following formula:

$$\text{occupant load} = D/2.5 + S/1.1$$

where D = the water surface area in square metres of the part of the pool where the still water depth is greater than 1 m; and

where S = the water surface area in square metres of the part of the pool where the still water depth is 1 m or less.

EXTRACTS FROM SECTION 3.2

3.2.1.1.(7) A **service space** in which facilities are included to permit a person to enter and to undertake maintenance and other operations pertaining to **building** services from within the **service space** need not be

APPENDIX C

considered a **storey** if it conforms to Articles 3.2.5.15. and 3.3.1.22., and Sentences 3.2.4.19.(2), 3.2.7.3.(2), 3.3.1.3.(7), 3.4.2.4.(3) and 3.4.4.4.(8).

3.2.1.4.(1) A floor assembly immediately above a **basement** shall be constructed as a **fire separation** having a **fire-resistance rating** conforming to the requirements for floor assemblies in Articles 3.2.2.16. to 3.2.2.62., but not less than 45 min.

(2) All **loadbearing** walls, columns and arches supporting a floor assembly immediately above a **basement** shall have a **fire-resistance rating** not less than that required in Sentence (1) for the floor assembly.

3.2.1.5.(1) Except as permitted in Sentences (2) and 3.2.2.11.(2), **basements** shall be **sprinklered** or shall be subdivided into **fire compartments** not more than 600 m² in area by a **fire separation** having a **fire-resistance rating** not less than that required for the floor assembly immediately above the **basement**.

(2) An **open-air storey** need not conform to Sentence (1).

3.2.2.5.(1) For the purposes of Articles 3.2.1.4. and 3.2.1.5., a crawl space shall be considered as a **basement** when it is more than 1.8 m high between the lowest part of the floor assembly and the ground or other surface below or is used

- (a) for any **occupancy**,
- for the passage of **flue pipes**, or
- (c) as a plenum in combustible construction.

(2) A floor assembly immediately above a crawl space is not required to be constructed as a **fire separation** and is not required to have a **fire-resistance rating** provided the crawl space is not considered as a **basement** in Sentence (1).

3.2.2.11.(2) Where a **building** or portion thereof is erected entirely below the adjoining finished ground level and extends more than 1 **storey** below such ground level, the following minimum precautions against fire spread and collapse shall be taken:

- (a) except as provided in Sentence (3), **basements** shall be **sprinklered**,
floor assemblies below such ground level shall be constructed as a
 - (i) **fire separation** with a **fire-resistance rating** of not less than 3 h where the **basements** are occupied by Group E or Group F, Division 1 or 2 **occupancies**, and
 - (ii) **fire separation** with a **fire-resistance rating** of not less than 2 h where the **basements** are occupied by any other **occupancy**, and
- (c) all **loadbearing** walls, columns and arches shall have a **fire-resistance rating** not less than that required for the construction that they support.

(3) The **storey** immediately below the **first storey** need not be **sprinklered** as required by Clause (2)(a) where

- (a) it contains only **residential occupancies**, and
- (b) not less than one unobstructed access opening conforming to Sentence 3.2.5.1.(2) is installed on that **storey** for each 15 m of wall length in at least 1 wall required to face a **street** in Subsection 3.2.2.

3.2.2.15. to 3.2.2.62. *These Articles deal with requirements for building size and construction relative to occupancy and fire department access.*

3.2.3.13.(1) Except as required in Sentence (3), where an **exit** enclosure has exterior walls that may be exposed to fire from openings in the exterior walls of the **building** it serves, the openings in either the exterior walls of the **exit** or the exterior walls of the **building** shall be protected with wired glass in fixed steel frames or glass block conforming to Article 3.1.8.14. where the openings in the exterior walls of the **building** are within 3 m horizontally and

- (a) less than 10 m below openings in the exterior walls of the **exit**, or
- (b) less than 2 m above an openings in the exterior walls of the **exit**.

(2) *(Not referenced by Fire Code Subsections 9.8 and 9.9)*

(3) Except as provided in Sentence 3.4.4.3.(1), where an exterior **exit** door in one **fire compartment** is within 3 m horizontally of openings in another **fire compartment**, and the exterior walls containing such openings intersect at an exterior angle of less than 135°, the openings shall be protected with wired glass in fixed steel frames or glass block conforming to Article 3.1.8.14.

3.2.3.14.(1) Except as provided in Sentences 3.2.3.13.(1) and 3.2.3.20.(4), where an opening in an exterior wall of a **fire compartment** is exposed to an opening in the exterior wall of another **fire compartment**, and the planes of the 2 walls are parallel or at an angle of less than 135°, measured from the exterior of the **building**, the openings in the 2 **fire compartments** shall be separated by a distance at least equal to D_o where

$D_o = 2D - (\theta/90 \times D)$, but in no case less than 1 m, where

- D = the greater required **limiting distance** for the **exposing building faces** of the 2 **fire compartments**, and
- θ = the angle made by the intersecting planes of the **exposing building faces** of the 2 **fire compartments**, (in the case where the exterior walls are parallel and face each other, $\theta = 0^\circ$).

(2) The exterior wall of each **fire compartment** in Sentence (1) within the distance, D_o , shall have a **fire-resistance rating** not less than that required for the interior vertical **fire separation** between the compartment and the remainder of the **building**.

3.2.3.15. Except as permitted by Sentence 3.2.3.20.(4), where a wall in a **building** is exposed to a fire hazard from an adjoining roof of a separate unsprinklered **fire compartment** in the same **building**, and the exposed wall contains windows within 3 **storeys** vertically and 5 m horizontally of such roof, the roof shall contain no skylights within 5 m of the exposed wall.

3.2.3.20.(1) Except as provided in Sentence 3.2.3.21.(2), where **buildings** are connected by a **walkway**, each **building** shall be separated from the **walkway** by a **fire separation** with a **fire-resistance rating** of not less than 45 min.

(2) Except as permitted by Sentence (3), a **walkway** connected to a **building** required to be of **noncombustible construction** shall also be of **noncombustible construction**.

(3) A walkway connected to a building required to be of noncombustible construction is permitted to be of heavy timber construction provided

- (a) not less than 50 per cent of the area of any enclosing perimeter walls is open to the outdoors, and
- (b) the **walkway** is at ground level.

(4) A **walkway** of **noncombustible construction** used only as a pedestrian thoroughfare and that is not required as an **exit**, need not conform to the requirements of Articles 3.2.3.14. and 3.2.3.15.

3.2.3.21.(1) An underground **walkway** shall not be designed for any purpose other than pedestrian travel unless such other purpose is permitted and any space in the **walkway** containing an **occupancy** is **sprinklered**.

APPENDIX C

(2) **Buildings** connected by an underground **walkway** shall be separated from the **walkway** by a **fire separation** with a **fire-resistance rating** of not less than 1 h.

(3) An underground **walkway** shall be of **noncombustible construction** suitable for underground location.

(4) Smoke barrier doors shall be installed in underground **walkways** at intervals of not more than 100 m, or the travel distance from the door of an adjacent room or space to the nearest **exit** shall be not more than one and a half times the least allowable travel distance for any of the adjacent **occupancies** as prescribed in Sentence 3.4.2.5.(1).

3.2.4.4.(1) A single stage fire alarm system shall, upon the operation of any manual pull station or **fire detector**, cause an **alarm signal** to sound on all audible signal appliances in the system.

(2) A 2 stage fire alarm system shall

- (a) cause an **alert signal** to sound upon the operation of any manual pull station or **fire detector**,
- (b) except for Group B, Division 2 **major occupancies**, automatically cause an **alarm signal** to sound if the **alert signal** is not acknowledged within 5 min of its initiation,
- (c) have each manual pull station equipped so that the use of a key or other similar device causes an **alarm signal** to sound and continue to sound upon the removal of the key or similar device from the manual pull station, and
- (d) in a **building** containing a **hotel**
 - (i) cause an **alarm signal** to sound in the initiating fire zone in the **hotel**, and
 - (ii) cause an **alert signal** to sound throughout the **hotel** and such parts of the **building** as is necessary to alert **hotel** staff.

(3) Fire alarm systems in Sentences (1) and (2) are permitted to be zone coded so that, upon the operation of any manual pull station or **fire detector**,

- (a) a coded **alarm signal** is sounded for a single stage system or a coded **alert signal** is sounded for a 2 stage system indicating the zone of alarm initiation,
- (b) the coded **alert signal** or **alarm signal** is repeated in its entirety not less than 4 times, and
- (c) a continuous **alert signal** or **alarm signal** is sounded upon completion of the coded signals in Clause (b) and Sentence (4).

(4) When a second manual pull station or **fire detector** is operated in a system in Sentence (3), in a zone other than that for which the first **alert signal** or **alarm signal** was sounded, the coded **alert signal** or **alarm signal** for the first zone shall be completed before the coded **alert signal** or **alarm signal** for the second zone is repeated not less than 4 times.

3.2.4.7.(3) Except as permitted in Sentence (4), signals to the fire department shall be by way of

- (a) the municipal fire alarm system,
- (b) an independent central station conforming to NFPA-71, "Installation, Maintenance, and Use of Central Station Signaling Systems", or
- (c) a proprietary control centre conforming to NFPA-72D, "Installation, Maintenance, and Use of Proprietary Protective Signaling Systems".

(4) When the facilities in Sentence (3) are not available in the municipality in which the **building** is to be built, an independent system is permitted to be used to transmit signals to the fire department.

3.2.4.8.(1) Except as permitted in Sentences (2) to (4), an annunciator shall be installed in a location that is readily accessible to fire fighters entering the **building** and be in close proximity to a **building** entrance that faces a **street** or an access route for fire department vehicles that complies with Sentence 3.2.5.6.(1), and the annunciator shall have separate zone indicators of the actuation of the alarm initiating devices in each

- (a) **floor area** so that the coverage for each zone is not more than 2 000 m²,

- (b) **fire compartment** required to be separated by vertical **fire separations** having a **fire-resistance rating** of not less than 2 h, other than **dwelling units** described in Subsection 3.3.4.(*the relevant portion of Subsection 3.3.4. is Clause 3.3.4.2.*),
 - (c) shaft required to be equipped with **fire detectors**,
 - (d) air handling system required to be equipped with **smoke detectors**,
 - (e) to (h) (*these Clauses are not relevant to the Fire Code reference*)
- (2) An annunciator need not be provided for a fire alarm system when not more than 1 zone indicator is required in Sentence (1).
- (3) When an annunciator is not installed as part of a required fire alarm system in conformance with Sentence (1), a visual and audible trouble signal device shall be provided inside the main entrance of the **building** to indicate the status of the system.
- (4) The requirements in Sentence (1) are waived in a **building** that has an aggregate area for all **storeys** of not more than 2 000 m² and is not more than 3 **storeys** in **building height**.
- (5) Where a sprinkler system is used in lieu of **heat detectors** in conformance with Article 3.2.4.16., the requirements for zone indication in Clauses (1)(a) and (b) are waived provided the actuation of the alarm initiating devices is indicated on the annunciator in conformance with the zone indication requirements for the sprinkler system.
- (6) In a **building** containing a **hotel** in which a trouble signal sounding device has a silencing switch, a trouble light shall be installed in
- (a) the main reception area serving the **hotel**, or
 - (b) another continually-supervised location.
- (7) (this Sentence is not relevant to the Fire Code reference)
- 3.2.4.10.(1) **Fire detectors** required in this Article shall be connected to the fire alarm system.
- (2) Except as provided in Article 3.2.4.16., where a fire alarm system is required, **fire detectors** shall be installed in
- (a) storage rooms not within **dwelling units**,
 - (b) **service rooms** not within **dwelling units**,
 - (c) janitors' rooms,
 - (d) elevator and dumbwaiter shafts,
 - (e) rooms where hazardous products are to be used or stored, and
 - (f) (*this Clause is not relevant to the Fire Code reference*)
- 3.2.4.11.(1) Except as provided in Article 3.2.4.16., where a fire alarm system is required, **heat detectors** shall be installed
- (a) in every room in portions of **buildings** classified as Group A, Division 1 or Group B **major occupancy** other than sleeping rooms,
 - (b) except in a **hotel**, in every **suite**, and every room not located within a **suite**, in portions of **buildings** classified as Group C **major occupancy** and more than 3 **storeys** in **building height**, and
 - (c) in a **floor area** containing a **hotel**, in every room in a **suite** and in every room not located within a **suite** other than washrooms within a **suite**, saunas, refrigerated areas and swimming pools.
- 3.2.4.16.(1) **Heat detectors** in Articles 3.2.4.10. and 3.2.4.11. need not be provided where an automatic sprinkler system conforming to Sentences (2) to (5) and Article 3.2.5.13. is installed throughout the **floor area**.
- (2) If an annunciator is required by Article 3.2.4.8., automatic sprinkler systems referred to in Sentence (1) shall be equipped with waterflow detecting devices so that each device serves
- (a) not more than one **storey**, and

APPENDIX C

- (b) an area on each **storey** that is not more than system area limits as specified in NFPA 13, “Installation of Sprinkler Systems”.
- (3) Waterflow detecting devices required by Sentence (2) shall be connected to initiate an **alert signal** or an **alarm signal** on the fire alarm system.
- (4) The actuation of each waterflow detecting device required by Sentence (2) shall be indicated separately on the fire alarm system annunciator.
- (5) The sprinkler system referred to in Sentence (1) shall be electrically supervised to indicate a trouble signal on the **building** fire alarm system annunciator for each of the following:
 - (a) movement of a control valve handle,
 - (b) loss of excess water pressure required to prevent false alarms in a wet pipe system,
 - (c) loss of air pressure in a dry pipe system,
 - (d) loss of air pressure in a pressure tank,
 - (e) a significant change in water level in any water storage container used for fire fighting purposes,
 - (f) loss of electrical power to any automatically starting electrical fire pump, and
 - (g) a temperature approaching the freezing point in any dry pipe valve enclosure or water storage container used for fire fighting purposes.

3.2.4.19.(2) If a fire alarm system is required, audible signal appliances shall be located in a **service space** referred to in Sentence 3.2.1.1.(7) and shall be connected to the fire alarm system.

3.2.4.21.(1) **Smoke alarms** conforming to CAN/ULC-S531-M, “Standard for Smoke Alarms” shall be installed in each **dwelling unit** and, except for **institutional occupancies** required to have a fire alarm system, in each sleeping room not within a **dwelling unit**.

(2) **Smoke alarms** within **dwelling units** shall be installed between each area containing sleeping rooms and the remainder of the **dwelling unit**, and where the sleeping rooms are served by hallways, the **smoke alarms** shall be installed in the hallways.

(3) **Smoke alarms** shall be installed on or near the ceiling.

(4) **Smoke alarms** shall be installed with permanent connections to an electrical circuit and shall have no disconnect switches between the overcurrent device and the **smoke alarm**.

3.2.4.22.(1) A voice communication system required in Subsection 3.2.6.(see *Article 3.2.6.13.*) shall consist of

- (a) a 2-way communication system in each **floor area**, with connections to the central alarm and control facility and to the mechanical control centre, and
- (b) loudspeakers operated from the central alarm and control facility which are designed and located so as to be heard in all parts of the **building**, except that this requirement does not apply to elevator cars.

(2) The voice communication system referred to in Sentence (1) shall include provision for silencing the **alarm signal** in a single stage fire alarm system when voice messages are being transmitted, but only after the **alarm signal** has sounded initially for not less than

- (a) 30 s in Group B, Division 2 **major occupancies**, and
- (b) 1 min in all other **occupancies**.

(3) The voice communication system referred to in Sentence (1) shall include provision for silencing the **alert signal** and the **alarm signal** in a 2 stage fire alarm system when voice messages are being transmitted, but only after the **alert signal** has sounded initially for not less than

- (a) 30 s in Group B, Division 2 **major occupancies**, and
- (b) 1 min in all other **occupancies**.

(4) The voice communication system referred to in Clause (1)(b) shall be designed so that voice instructions can be transmitted selectively to any zone or zones while maintaining an **alert signal** or **alarm signal** to the other zones in the **building**.

(5) The 2-way communication system referred to in Clause (1)(a) shall be installed so that emergency telephones are located in each **floor area** near **exit** stair shafts.

3.2.5.1.(1) Except for **storeys** below the **first storey**, direct access for fire fighting shall be provided from the outdoors to every **storey** having its floor level less than 25 m above **grade** by not less than one unobstructed window or access panel for each 15 m of wall in each wall required to face a **street** in Subsection 3.2.2.

(2) An opening for access required in Sentence (1) shall be not less than 1 100 mm high by 550 mm wide, with a sill height of not more than 900 mm above the inside floor.

3.2.5.5. The technical requirements of Article 3.2.5.5. are essentially identical to the requirements contained in Sentence 3.2.5.2.(1) of Appendix A, "1986 Building Code References".

3.2.5.6. The technical requirements of Article 3.2.5.6. are essentially identical to the requirements contained in Sentences 3.2.5.2.(2) to (5) of Appendix A, "1986 Building Code References".

3.2.5.7. The technical requirements of Article 3.2.5.7. are essentially identical to the requirements contained in Sentence 3.2.5.2.(6) of Appendix A, "1986 Building Code References".

3.2.5.13.(1) Except as provided in Sentences (2) and (3), where a sprinkler system is required, it shall be designed, constructed, installed and tested in conformance with NFPA 13, "Installation of Sprinkler Systems".

(2) Where a **building** contains fewer than 9 sprinklers, the water supply for such sprinklers is permitted to be supplied from the domestic water system for the **building** provided the required flow and pressure for the sprinklers can be met by the domestic system.

(3) Where a water supply serves both a sprinkler system and a system serving other equipment, control valves shall be provided so that either system can be shut off independently.

(4) Open grid and translucent ceilings located below sprinkler systems shall be installed in conformance with NFPA 13, "Installation of Sprinkler Systems", paragraphs 4-4.14 and 4-4.15.

(5) Where a sprinkler system has one or more electrically supervised control valves in order to meet the requirements of this Article, each valve shall be equipped with an electrically supervised switch for transmitting a signal for individual annunciation in the event of movement of the valve handle and the same annunciator panel may be utilized for supervision of valves in both the standpipe and sprinkler systems.

3.2.5.14.(1) **Combustible** sprinkler piping shall be used only for wet systems in **residential occupancies** and other light hazard **occupancies**.

(2) **Combustible** sprinkler piping shall meet the requirements of ULC C199P-M, "Guide for the Investigation of Combustible Piping for Sprinkler Systems".

(3) Except as permitted in Sentence (4), **combustible** sprinkler piping shall be separated from the area served by the sprinkler system and from any other **fire compartment** by ceilings, walls, or soffits consisting of, as a minimum, lath and plaster, gypsum board not less than 9.5 mm thick, plywood not less than 13 mm thick, or a suspended membrane ceiling with lay-in panels or tiles and steel suspension grids, with the lay-in panels or tiles having a mass of not less than 1.7 kg/m².

APPENDIX C

- (4) Where **combustible** sprinkler piping is located above a ceiling, openings in the ceiling that are unprotected through the ceiling shall
- (a) have an individual area not more than 0.71 m²,
 - (b) have no dimension greater than 1200 mm, and
 - (c) be located so that the distance between the edge of the opening and the nearest sprinkler head is not more than 300 mm.

3.2.5.15.(1) An automatic sprinkler system shall be installed in a **service space** referred to in Sentence 3.2.1.1.(7) if flooring for access within the **service space** is other than catwalks.

(2) The sprinkler system required in Sentence (1) shall be equipped with waterflow detecting devices serving not more than one **storey**.

(3) The waterflow detecting devices required by Sentence (2) shall be connected to the fire alarm system, if required, to

- (a) initiate an **alert signal** or **alarm signal**, and
- (b) indicate separately on the fire alarm system annunciator the actuation of each device.

(4) If a **building** is **sprinklered**, sprinkler protection need not be provided in the space below a raised floor in a **computer room**

- (a) if the optical fibre cables and electrical wires and cables in this space conform to the test requirements in Article 3.1.5.19.,
- (b) if the **building** is of **noncombustible construction** and other **combustible** components are limited to those permitted in Subsection 3.1.5.,
- (c) if this space is used to circulate conditioned air, and the air handling system is designed to prevent the circulation of smoke upon a signal from a **smoke detector**,
- (d) if all of this space is easily accessible by providing access sections or panels in the raised floor, and
- (e) if the **computer room** is more than 2 000 m² and the annunciator has separate zone indicators of the actuation of **smoke detectors** located in this space so that the coverage for each zone is not more than 2000 m².

(5) Where a room, chute or bin is required to be **sprinklered** as indicated in Sentence 3.3.4.3.(1), Article 3.5.2.7. and Sentence 3.5.3.3.(6), the sprinklers may be supplied with water from the fire standpipe system provided that

- (a) except for a chute, not more than 8 sprinkler heads are required to protect any room or bin based on a maximum coverage of 12 m² per sprinkler head,
- (b) the standpipe riser is
 - (i) not less than 6 in. (150 mm) in diameter, or
 - (ii) hydraulically designed to meet combined water supply as specified in Clause (c),
- (c) the water supply for a standpipe system, pumping capability and water storage facility, if required, is increased to supply 95 L/min for each sprinkler head over and above the requirements for the standpipe system up to maximum 760 L/min for sprinklers,
- (d) a waterflow detecting device is installed in the sprinkler main adjacent to the point of connection to the standpipe riser, and
- (e) the activation of each waterflow detecting device in Clause (d) shall be indicated separately on the fire alarm system annunciator.

3.2.5.16.(1) Fire department connections for standpipe and hose systems shall be located so that the distance from the fire department connection to a hydrant is not more than 45 m and is unobstructed.

(2) Fire department connections for sprinkler systems shall be located so that the distance from a fire department connection to a hydrant is not more than 45 m and is unobstructed.

(3) The fire department connections required in Sentences (1) and (2) shall be

- (a) located on the outside of a **building** adjacent to a **street** or an access route, not less 300 mm and not more than 900 above ground level, and
- (b) provided with two 65 mm hose connections with female swivel hose couplings.

3.2.6. *This Section contains additional requirements for high buildings that are not all relevant to the Fire Code reference. Information detailing which buildings are classified as high buildings is relevant though and is provided in Sentence 3.2.6.1.(1).*

3.2.6.1.(1) This Subsection applies to

- (a) every **building** of Group A, D, E or F **major occupancy** classification that is more than
 - (i) 36 m high, measured between **grade** and the floor level of the top **storey**, or
 - (ii) 18 m high, measured between **grade** and the floor level of the top **storey**, and in which the cumulative or total **occupant load** on or above any **storey** above **grade**, other than the **first storey**, divided by 1.8 times the width in meters of all **exit** stairs at that **storey**, exceeds 300 persons,
- (b) *(Applies to Group B occupancies only)*
- (c) every **building** containing a Group C **major occupancy** whose floor level is more than 18 m above **grade**.

3.2.6.2. *Article 3.2.6.2. provides comprehensive requirements for smoke control in high buildings. The alternative retrofit requirements provided in Sentence 9.9.2.15.(4) of the Fire Code are much easier to carry out and will generally be the preferred method of satisfying the smoke control requirements of the Fire Code. For this reason, the details of Article 3.2.6.2. of the Building Code are not being provided here. Comparable information is available in the current Building Code.*

3.2.6.8.(1) Manual emergency recall operation shall be provided for all elevators serving **storeys** above the **first storey**.

(2) Key-operated switches for emergency recall described in Sentence (1) shall be provided in a conspicuous location at each elevator lobby on the recall level and at the central alarm and control facility required in Article 3.2.6.12.

(3) In-car emergency switches shall be provided in all elevator cars.

(4) Keys to operate the switches required by Sentence (2) and (3) shall be provided in a suitably identified box conspicuously located on the outside of an elevator shaft near the central alarm and control facility required in Article 3.2.6.12., and an additional key, or keys, shall be kept at the central alarm and control facility.

(5) Automatic emergency recall operation shall be provided for all elevators serving **storeys** above the **first storey** in unsprinklered **buildings**.

- (6) The automatic emergency recall feature in Sentence (5) shall be actuated by
 - (a) **smoke detectors** installed in each elevator lobby on each **storey**, or
 - (b) the **building** fire alarm system.

(7) **Smoke detectors** in Sentence (6) shall be designed as part of the **building** fire alarm system.

3.2.6.9.(1) Not less than one elevator shall be provided for use by fire fighters in conformance with Sentences (2) to (6).

(2) The elevator required in Sentence (1) shall have a usable platform area not less than 2.2 m² and shall be capable of carrying a load of 900 kg from a **street** floor landing to the top floor that it serves in 1 minute,

except that in every **building** which is a Group C **major occupancy** apartment **building**, the elevator shall be able to accommodate a stretcher in the horizontal position.

(3) Except when Measure K of Chapter 3, “Measures for Fire Safety in High Buildings”, of the Supplement to the NBC 1990 is used, each elevator for use by fire fighters shall

- (a) be provided with a closure at each shaft opening so that the interlock mechanism and associated wiring is operational for a period of at least 1 h when the assembly is subjected to the standard fire exposure described in CAN4-S104-M, “Standard Method for Fire Tests of Door Assemblies”,
- (b) be protected with a vestibule containing no occupancy, and separated from the remainder of the floor area by a fire separation having a fire-resistance rating of not less than 45 min, or
- (c) be protected with a corridor containing no occupancy and separated from the remainder of the building by a fire separation having a fire-resistance rating of not less than 1 h.

(4) Except as provided in Sentence (5), an elevator required in Sentence (1) shall be capable of providing transportation from the street floor to every floor normally served by the elevator system that is above grade in the building.

(5) Where it is necessary to change elevators to reach any floor referred to in Sentence (4), the system shall be designed so that not more than one change of elevator is required when travelling from a **street** floor to any floor in the **building**.

(6) Electrical conductors for the operation of the elevator referred to in Sentence (1) shall be

- (a) installed in **service spaces** conforming to Section 3.5 that do not contain other **combustible** material, or
- (b) protected against exposure to fire from the service entrance of the emergency power supply, or the normal service entrance of the normal power supply to the equipment served, to ensure operation for a period of 1 h when subjected to the standard fire exposure described in CAN4-S101-M, “Standard Methods of Fire Endurance Tests of Building Construction and Materials”.

3.2.6.12. *The central alarm and control facility required in 3.2.6.12. provides a means to control and operate the voice communication system, the fire alarm and other equipment that is necessary to the life safety of the building. This facility is usually located near the main entrance to the building and is accessible to fire fighters.*

3.2.6.13. When the height of a **building**, measured between **grade** and the **floor** of the top **storey** is more than 36 m, or in **buildings** containing a **floor area** above the third **storey** and designed or intended as a Group B, Division 2 **occupancy**, a voice communication system or systems conforming to Article 3.2.4.22. shall be provided.

3.2.7.3.(1) Emergency lighting shall be provided to average levels of at least 10 lx at floor or tread level in

- (a) exits,
- (b) principal routes providing access to exit in an open floor area,
- (c) corridors used by the public
- (d) corridors serving patients' sleeping rooms,
- (e) corridors serving classrooms,
- (f) underground walkways,
- (g) public corridors,
- (h) floor areas or parts thereof where the public may congregate in
 - (i) Group A, Division 1 **occupancies**, and
 - (ii) Group A, Division 2 and 3 **occupancies** with an **occupant load** of 60 persons or more, and
- (i) reserved.

(2) Emergency lighting to provide an average level of illumination at floor or catwalk level of not less than 10 lx (0.9 ft-candles) shall be included in a **service space** referred to in Sentence 3.2.1.1.(7).

3.2.7.4.(1) An emergency power supply shall be provided to maintain the emergency lighting required by this Subsection from a power source such as batteries or generators that will continue to supply power in the event that the regular power supply to the **building** is interrupted and be so designed and installed that upon failure of the regular power it will assume the electrical load automatically for a period of

- (a) 2 h for all **buildings** within the scope of Subsection 3.2.6.,
- (b) 1 h for **buildings** of Group B **major occupancy** classification that are not within the scope of Subsection 3.2.6., and
- (c) 30 min for **buildings** of all other **occupancies**.

(2) Where self-contained emergency lighting units are used, they shall conform to CSA C22.2 No. 141, "Unit Equipment for Emergency Lighting".

3.2.7.8.(1) An emergency power supply conforming to Sentences (2), (3) and (4) shall be provided for required fire alarm systems.

(2) The emergency power supply required in Sentence (1) shall be from

- (a) a generator conforming to Article 3.2.7.4.,
- (b) batteries, or
- (c) a combination thereof.

(3) The emergency power supply required in Sentence (1) shall be capable of providing supervisory power for not less than 24 h and emergency power under full load for not less than

- (a) 2 h for **buildings** required to conform to Subsection 3.2.6.,
- (b) 1 h for **buildings** classified as Group B **major occupancy** that are not within the scope of Subsection 3.2.6.,
- (c) 5 min for **buildings** not required to be equipped with an annunciator, and
- (d) 30 min for all other **buildings**.

(4) The emergency power supply required in Sentence (1) shall be designed so that there will be automatic transfer to emergency power in the event of a failure of the normal power source.

(5) An emergency power supply shall be provided for the voice communication system required by Article 3.2.6.13. and shall be capable of maintaining operation of the system for not less than 2 h..

(6) The emergency power supply for the voice communication system required by Sentence (5) shall be capable of full operation immediately upon the failure of the normal source of power.

(7) If the emergency power supply required by Sentence (5) is provided by batteries, the batteries shall be sized to provide the total energy consumed by the maximum possible electrical supervision current plus the trouble signal current for a period of 24 h followed by 30 min of continuous voice communication.

3.2.8. *Details of proper interconnected floor space design as referenced in Subsection 3.2.8. are quite comprehensive and can be found in the current edition of the Building Code.*

3.2.8.2.(6) An **interconnected floor space** need not conform to the requirements of Articles 3.2.8.2. to 3.2.8.10. provided

- (a) the **interconnected floor space** consists of the **first storey**, and the **storey** next above or below it, but not both,
- (b) the **interconnected floor space** is **sprinklered**, and
- (c) the **interconnected floor space** contains only Group A, Division 1 or 2, Group D, Group E, or Group F, Division 3 **major occupancies**.

3.2.8.7.(2) In a building containing an interconnected floor space

- (a) waterflow **alarm signals** from sprinkler systems shall be transmitted to the fire department in conformance with Sentence 3.2.4.7.(3), and
- (b) sprinkler systems shall be electrically supervised as required in Sentence 3.2.4.16.(5).

3.2.9.1.(1) Except as provided in Article 3.2.9.2., a standpipe and hose system shall be installed in every **building** that

- (a) is more than
 - (i) 3 storeys in building height, or
 - (ii) 14 m in height measured between **grade** and the ceiling of the uppermost **storey**,
- (b) is greater in **building area** than the area shown in Table 3.2.9.A. for the applicable **building height** shown in the Table where the **building**
 - (i) is not **sprinklered**, and
 - (ii) is not more than 14 m high measured between **grade** and the ceiling of the top **storey**, or
- (c) contains more than one **storey** below **grade**.

TABLE 3.2.9.A.

Forming Part of Sentence 3.2.9.1.(1)

Occupancy Classification	Building Area, m ²		
	1 Storey	2 Storeys	3 Storeys
A	2 500	2 000	1 500
C	2 000	1 500	1 000
D	4 000	3 000	2 000
F, Division 2	2 000	1 500	1 000
F, Division 3	3 000	2 000	1 000
Column 1	2	3	4

3.2.9.2.(1) A standpipe need not be installed in a **storage garage** conforming to Article 3.2.2.60. provided the **building** is not more than 15 m high.

(2) A standpipe system need not be installed in the lowest **storey** in a **building** where this **storey** is a **service room** having an area not more than 50 m².

3.2.9.3.(1) Except as provided in Sentences (2) to (10) and Articles 3.2.9.4. to 3.2.9.7., where standpipe and hose systems are required, the design, construction, installation and testing of such standpipe and hose systems shall be in conformance with NFPA 14, "Installation of Standpipe and Hose Systems".

(2) Dry standpipes that are not connected to a water supply shall not be considered as fulfilling the requirements of this Article.

(3) Where more than one standpipe is provided, the total water supply need not be more than 30 L/s.

(4) Where a standpipe and hose system is required, 38 mm diam hose connections shall be provided in each **storey** in the **building**.

(5) In addition to the requirements in Sentence (4), where a standpipe and hose system is required, 65 mm diam hose connections shall be installed in each **storey** in **buildings** which

- (a) are more than 25 m high, measured between **grade** and the ceiling of the top **storey**, or
- (b) has a **building area** of more than 4 000 m².

(6) The residual water pressure at the design flow rate at the topmost outlet of a standpipe and hose system that is required to be installed in a **building** is permitted to be less than 450 kPa provided that

- (a) the building is **sprinklered** in conformance with Sentence 3.2.5.13.(1),
 - (b) the water supply at the base of the sprinkler riser is capable of meeting the design flow rate and pressure demand of the sprinkler system, including the inside and outside hose allowance, and
 - (c) fire protection equipment is available to deliver, by means of the fire department connection, the full demand flow rate at a residual water pressure of 450 kPa at the topmost outlet of the standpipe and hose system.
- (7) Pumps required to have a discharge pressure greater than 280 kPa (gauge) and their controllers shall be **listed** and labelled.
- (8) Couplings for hoses or other fittings used in connection with such couplings shall conform to ULC-S513, "Standard for Threaded Couplings for 38 mm and 65 mm Fire Hose" or ULC-S543, "Standard for Internal Lug Quick Connect Couplings for Fire Hose".
- (9) Where freezing of piping may occur, a dry standpipe system may be provided and so arranged through the use of **listed** devices to
- (a) automatically admit water to the system by opening of a hose valve, and
 - (b) transmit a signal to an attended location.
- (10) A standpipe riser shall be located in
- (a) a vertical service space, or
 - (b) an **exit** stair shaft.
- 3.2.9.4.(1) Hose stations shall be located
- (a) so that every portion of the **building** can be reached by a hose stream and is within 3 m of a nozzle attached to not more than 30 m of hose,
 - (b) not more than 5 m from every required **exit** serving a **floor area**, except
 - (i) for the **first storey**, or
 - (ii) where additional hose stations are required to achieve full coverage of the **floor area**, and
 - (c) in a conspicuous location where they are not likely to be obstructed.
- (2) A hose station located on one side of a **horizontal exit** shall be considered to serve only the **floor area** on that side of the **horizontal exit**.
- (3) Except for roof-top enclosures, hose stations shall be located so that it is not necessary to penetrate an **exit** stairwell to provide full design coverage.
- (4) Each hose station shall be equipped with a hose rack filled with not more than 30 m of 38 mm diam fire hose and the hose rack and fire hose shall be
- (a) **listed**, or
 - (b) approved by the Factory Mutual Research Corporation.
- (5) Except in a Group F **occupancy** and as permitted in Sentence (6), valves, fire hose, nozzle and hose rack shall be in a hose cabinet.
- (6) Hose stations in a Group B, Division 1 **major occupancy** is permitted to be located in a secure area, or in lockable cabinets provided that
- (a) identical keys for all cabinets are located at all guard stations, or
 - (b) electrical remote release devices are provided and are connected to an emergency power supply.
- (7) Hose cabinets shall be of sufficient size to contain a **listed** fire extinguisher in addition to the equipment referred to in Sentence (5),
- (8) Every hose cabinet shall be located so that its door, when fully opened, will not obstruct the required width of a **means of egress**.
- (9) Hose connections shall be provided with sufficient clearance to permit the use of a standard fire department hose key.

3.2.9.5. In **buildings** where a fire alarm system is required to have an annunciator by Sentence 3.2.4.8.(1), each valve controlling water supplies in a standpipe system, except for hose valves, shall be equipped with an electrically supervised switch for transmitting a signal for individual annunciation in the event of movement of the valve handle.

3.2.9.6.(1) Where a standpipe and hose system is required, the water supply shall be sufficient to provide a flow, measured at each of the two highest and most remote 38 mm hose connections,

- (a) of not less than 380 L/min,
- (b) for not less than 30 min,
- (c) at a pressure of not less than 450 kPa (gauge), and
- (d) of not less than 190 L/min from each of the two outlets simultaneously.

3.2.9.7.(1) Where 65 mm hose connections are required, the water supply shall be sufficient to provide a flow, measured at each of the two highest and most remote 65 mm hose connections

- (a) of not less than 1 890 L/min,
- (b) for not less than 30 min,
- (c) at a pressure of not less than 450 kPa (gauge), and
- (d) of not less than 945 L/min from each of the two outlets simultaneously.

(2) Where the **building** is less than 84 m in height, measured between **grade** and the ceiling level of the top **storey**, the water supply required in Sentence (1) is permitted to be supplied through the fire department connection.

(3) Where the **building** is 84 m or more in height, measured between **grade** and the ceiling level of the top **storey**, the water supply required in Sentence (1) shall be provided by sufficient pumping capacity.

(4) Where the **building** is 84 m or more in height, measured between **grade** and the ceiling level of the top **storey**, the **building** shall be served by not less than two sources of water supply from a public water system.

EXTRACTS FROM SECTION 3.3

3.3.1.3.(7) Two points of egress shall be provided from a **service space** referred to in Sentence 3.2.1.1.(7) if the area of the **service space** is more than 200 m², and the travel distance measured from any point in the **service space** to a point of egress is more than 25 m.

3.3.1.22. Illuminated signs conforming to Sentences 3.4.5.1.(3) and (5) shall be provided to indicate the direction to egress points in a **service space** referred to in Sentence 3.2.1.1.(7).

3.3.2.3.(3) *This Sentence refers to egress doorways in fixed seat Group A, Division 1 assembly areas*

- (a) *where the doorways are provided at the ends of rows of seats where no more than 100 seats are provided per row, and*
- (b) *where not more than 3 rows are served by the doorways.*

3.3.2.4.(6) The length of travel to an **exit** door by any aisle shall not be more than 45 m.

3.3.4.2.(1) **Suites of residential occupancy** shall be separated from each other and the remainder of the **building** by a **fire separation** having a **fire-resistance rating** of not less than 1 h, except that

- (a) a **fire-resistance rating** of not less than 45 min is permitted where the **fire-resistance rating** of the floor assembly above the **floor area**, or the floor assembly below the **floor area** if there is no floor assembly above, is not required to be more than 45 min, and
 - (b) no **fire separation** is required for a floor assembly conforming to Sentence 3.2.2.5.(2).
- (2) Floor assemblies within a **dwelling unit** need not be constructed as **fire separations** provided the distance between the lowest floor level and the uppermost floor level within the **dwelling unit** is not more than 6 m and provided that the **dwelling unit** is separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** of not less than
- (a) 45 min where the **building** is **sprinklered** and is not more than 3 **storeys** in **building height**,
 - (b) 1 h if the **building** is **sprinklered** or is not more than 6 **storeys** in **building height**, and
 - (c) 2 h where the **building** is not **sprinklered** and is more than 6 **storeys** in **building height**.
- 3.3.4.3.(1) Storage rooms not contained within a **suite**, for the use of tenants in **residential occupancies**, shall be **sprinklered** and separated from the remainder of the **building** by a **fire separation** having a **fire-resistance rating** of not less than 1 h, except that a **fire-resistance rating** of not less than 45 min is permitted where the **fire-resistance rating** of the floor assembly is not required to be more than 45 min.
- 3.3.5.5.(3) Mechanical **storage garages** of not more than 4 **storeys** in **building height**, where no persons other than parking attendants are permitted above the **street** floor level, need not have a **fire separation** between the **exits** and the remainder of the **building**.

EXTRACTS FROM SECTION 3.4

- 3.4.2.4.(1) Except as provided in Sentence (2), and (4), for the purposes of this Subsection, travel distance means the distance from any point in the **floor area** to an **exit** measured along the path of **exit** travel.
- (2) The travel distance may be measured from an egress door of a room or **suite** to the nearest **exit** where
- (a) the **public corridor** or a corridor used by the public which serves the room or **suite** is separated from the remainder of the **floor area** by a **fire separation**, or
 - (b) the room or **suite** is served by an exterior passageway.
- (3) Travel distance to an **exit** shall be not more than 50 m from any point in a **service space** referred to in Sentence 3.2.1.1.(7).
- (4) *This requirement applies to elementary and secondary schools only.*
- 3.4.2.5.(1) Except as permitted by Sentences (2), (3) and 3.3.2.4.(6), where more than one **exit** is required from a **floor area**, such **exits** shall be located so that the travel distance to not less than one **exit** as described in Article 3.4.2.4. shall be not more than
- (a) 25 m in a Group F, Division 1 **occupancy**,
 - (b) 45 m in any **sprinklered floor area** that contains an **occupancy** other than Group F, Division 1,
 - (c) 40 m in any Group D **occupancy**,
 - (d) 105 m in any **floor area**, served by a **public corridor**, in which rooms and **suites** are not separated from the remainder of the **floor area** by a **fire separation**, provided
 - (i) the **public corridor** has a width of not less than 9 m,
 - (ii) the ceiling height in the **public corridor** is not less than 4 m above all floor surfaces,
 - (ii) the **building** is **sprinklered**, and
 - (iv) not more than one half of the required egress doorways from a room or **suite** open into the **public corridor** when the room or **suite** is required to have more than one egress doorway,
 - (e) 60 m in any **storage garage** that conforms to the requirements of Article 3.2.2.60., and
 - (f) 30 m in any other **occupancy**.

APPENDIX C

(2) Except for a Group F, Division 1 **occupancy**, Sentence (1) need not apply if **exits** are placed along the perimeter of the **floor area** and are not more than 60 m apart, measured along the perimeter, provided each main aisle in the **floor area** leads directly to an **exit**.

(3) Where more than one **exit** is required, every **exit** shall be considered as contributing not more than one half of the required **exit** width.

3.4.4.1.(1) Except as provided in Articles 3.4.4.3. and Sentences (2), 3.3.5.5.(3) and 3.4.4.2.(2), every **exit** shall be separated from each adjacent **floor area** by a **fire separation** having a **fire-resistance rating** not less than that required for the floor assembly above the **floor area** and, where there is no floor assembly above, not less than that required by Subsection 3.2.2. for the floor assembly below, but in no case shall the **fire-resistance rating** be less than 45 min.

(2) The **fire-resistance rating** of the **fire separation** in Sentence (1) need not be more than 2 h.

3.4.4.2.(1) Except as provided in Sentence (2), an **exit** from any **floor area** above or below the **first storey** shall not lead through a lobby.

(2) Not more than 1 **exit** from a **floor area** is permitted to lead through a lobby provided

- (a) the lobby floor is not more than 4.5 m above **grade**,
- (b) the path of travel through the lobby to the outdoors is not more than 15 m,
- (c) the adjacent rooms or premises having direct access to the lobby do not contain a Group C or F **occupancy**,
- (d) except as required in Clause (g), the lobby is not located within an **interconnected floor space** other than as described in Sentence 3.2.8.2.(6),
- (e) the lobby conforms to the requirements for **exits**, except that
 - (i) rooms other than **service rooms** and storage rooms may open onto the lobby,
 - (ii) the **fire separation** between the lobby and a room used for the sole purpose of control and supervision of the **building** need not have a **fire-resistance rating**, and
 - (iii) the **fire separation** between the lobby and adjacent **occupancies** that are permitted to open onto the lobby need not have a **fire-resistance rating** when the lobby and adjacent **occupancies** are **sprinklered**,
- (f) the **fire separation** required in Sentence 3.4.4.1.(1) shall be maintained between the **exit** and the lobby, and
- (g) that if the **exit** serves a **hotel**, the lobby is not located within an **interconnected floor space**.

3.4.4.3.(1) The requirements in Sentences 3.4.4.1.(1) and 3.2.3.13.(1) and (3) do not apply to an exterior **exit** passageway provided

- (a) not less than 50 per cent of the exterior side is open to the outdoors, and
- (b) an **exit** stair is provided at each end of the passageway.

3.4.4.4.(8) **Service spaces** referred to in Sentence 3.2.1.1.(7) shall not open directly into an **exit**.

3.4.5.1.(1) Except as provided in Sentence (7), every **exit** door other than the main entrance to a room or **building** shall have an **exit** sign placed over or adjacent it when the **exit** serves

- (a) a building exceeding 2 storeys in building height,
- (b) a **building** having an **occupant load** greater than 150, or
- (c) a room or **floor area** that has a fire escape as part of a required **means of egress**.

(2) Except as provided in Sentence (9), every **exit** sign shall

- (a) be visible from the **exit** approach,
- (b) have the word EXIT or the words EXIT/SORTIE displayed in plain legible letters, and

- (c) be designed to be illuminated continuously while the **building** is occupied.
- (3) **Exit** signs shall consist of red letters on a contrasting background or a red background with contrasting letters, with the letters having a 19 mm stroke and a height of at least
 - (a) 114 mm when internally illuminated, and
 - (b) 150 mm when externally illuminated.
- (4) Where illumination of an **exit** sign is provided from an electrical current, that circuit shall
 - (a) serve no equipment other than emergency equipment, and
 - (b) be connected to an emergency power supply as described in Sentence 3.2.7.4.(1) where emergency lighting is required in Sentence 3.2.7.3.(1).
- (5) Where necessary, signs shall be provided to indicate the direction of egress in **public corridors** and passageways, and shall have the word **EXIT** or the words **EXIT/SORTIE** with a suitable arrow or pointer indicating the direction of egress, and the size of lettering shall conform to Sentence (3).
- (6) Except for egress doors described in Sentence 3.3.2.3.(3), and except for the main entrance door, an **exit** sign conforming to Sentences (2), (3) and (4) shall be placed over or adjacent to every egress door from rooms with an **occupant load** of more than 60 in Group A, Division 1 **occupancies**, dance halls, licensed beverage establishments and other similar **occupancies** that, when occupied, have lighting levels below that which would provide easy identification of the egress door.
- (7) Except for **suite** doors opening directly to the exterior, every **exit** serving a **hotel** shall have an **exit** sign placed over or adjacent to it.
- (8) Reserved
- (9) If an **exit** sign having the word **EXIT** is installed in conformance with this Article, an additional sign displaying the word **SORTIE** is permitted to be installed.

3.4.5.2. In **buildings** over 2 **storeys** in **building height**, any part of an **exit** ramp or stair that continues past an exterior **exit** door down to a **basement** shall be clearly marked by a sign indicating that it does not lead to an **exit**.

3.4.6.15.(4) An electromagnetic locking device that does not incorporate latches, pins or other similar devices to keep the door in the closed position is permitted to be installed on an **exit** door, other than an **exit** door serving an elementary or secondary school or leading directly from a Group F, Division 1 **occupancy**

- (a) if the **building** is equipped with a fire alarm system conforming to Subsection 3.2.4. (Subsection 3.2.4. is referenced only to indicate a code compliant fire alarm system),
- (b) if the locking device is installed as an ancillary device to the fire alarm system and release immediately
 - (i) upon activation of the fire alarm signal,
 - (i.1) where the **exit** door serves a **hotel**, upon activation of the **alert signal** where a two stage fire alarm system is installed or upon activation of the **alarm signal** where a single stage fire alarm system installed,
 - (ii) in the event of a power failure or ground fault, and
 - (iii) upon activation of a manually-operated switch accessible only to authorized personnel,
 if a manual pull station for the fire alarm system is located on the wall not more than 600 mm from the door,
- (d) if, upon its release, the locking device must be reactivated manually by the actuation of the switch referred to in Subclause (b)(iii),
- (e) if a legible sign having the words **EMERGENCY EXIT UNLOCKED BY FIRE ALARM** is permanently mounted on the door, and
- (f) if the lettering on the sign required in Clause (e) is at least 25 mm high with a 5 mm stroke.

3.4.6.16.(1) Except as required in Sentence (4), in **buildings** more than 6 **storeys** in **building height**,

- (a) except as provided in Sentence (3), doors providing access to **floor areas** from **exit** stairs shall not have locking devices to prevent entry into
 - (i) any **floor area** designated as an area of refuge,
 - (ii) **floor areas** located at intervals of 5 **storeys** or less, and
 - (iii) at least one of the three highest **storeys**,
- (b) doors referred to in Clause (a) that provide access into the **floor area** shall be identified by a sign on the stairway side to indicate that they are openable from that side, and
- (c) a master key to fit all door locking devices that are intended to prevent entry into a **floor area** from an **exit** stair shall be provided in a designated location accessible to fire fighters, or the doors shall be provided with a wired glass panel not less than 645 cm² in area and located not more than 300 mm from the door opening hardware.

(2) Where access to **floor areas** through unlocked doors is required by Clause (1)(a) or through electromagnetically locked doors is permitted by Sentence (3), it shall be possible for a person entering such **floor area** to have access through unlocked doors or electromagnetically locked doors within the **floor area** to at least one other **exit**.

(3) Electromagnetic locking devices may be installed on the doors providing access to **floor areas** in Clause (1)(a) from **exit** stairs, provided all locking device release and signage provisions in Sentence 3.4.6.15.(4) are installed on both sides of such stairway **exit** doors.

(4) In a **building** not more than 6 **storeys** in **building height**, doors providing access from **exit** stairs to a **floor area** containing a **hotel** are permitted to have locking devices to prevent entry into the **floor area** provided the requirements in Clause (1)(c) are complied with.

3.4.6.17.(1) Arabic numerals indicating the assigned floor number shall

- (a) except as required in Clause (b), be mounted permanently on the stair side of the wall at the latch side of doors to **exit** stair shafts,
- (b) be mounted permanently on each side of the doors to **exit** stair shafts that serve a **hotel**.
- (c) be not less than 60 mm high, raised approximately 0.7 mm above the surface, be located 1500 mm from the finished floor, except for door mounted numerals, be located not more than 300 mm from the door, and
- (f) be contrasting in colour with the surface on which they are applied.

3.4.7.2. *The technical requirements of Article 3.4.7.2. are essentially identical to the requirements contained in Sentence 3.4.7.13.(3) of Appendix A, "1986 Building Code References".*

3.4.7.3. *The technical requirements of Article 3.4.7.3. are essentially identical to the requirements contained in Sentences 3.4.7.13.(4) and (8) of Appendix A, "1986 Building Code References".*

3.4.7.5. *The technical requirements of Article 3.4.7.5. are essentially identical to the requirements contained in Sentences 3.4.7.13.(6), (7), (9) and (13) of Appendix A, "1986 Building Code References".*

3.4.7.6. *The technical requirements of Article 3.4.7.6. are essentially identical to the requirements contained in Sentences 3.4.7.13.(10) to (12) of Appendix A, "1986 Building Code References".*

EXTRACTS FROM SECTION 3.5

3.5 *Section 3.5 has provisions that apply to attic, duct, crawl and shaft spaces and service rooms, mechanical penthouses and facilities contained therein.*

Service spaces are detailed in Subsections 3.5.3. and 3.5.4., and are required to be separated from the remaining floor area by fire-rated separations. Further details are provided in the current edition of the Building Code.

3.5.2.7. Except as provided in Sentence 3.5.3.3.(9), rooms for the temporary storage of **combustible** refuse such as garbage or waste paper shall be separated from the remainder of the **building** by a **fire separation** with a **fire-resistance rating** of not less than 1 h and be **sprinklered**.

3.5.3.3.(6) Sprinklers shall be installed at the top of each linen and refuse chute, at alternate floor levels and in the room or bin into which the chute discharges.

(9) A refuse chute shall discharge only into a room or bin separated from the remainder of the **building** by a **fire separation** with a **fire-resistance rating** of not less than 2 h.

3.5.4.2.(1) A **horizontal service space** that penetrates a required vertical **fire separation** shall be separated from the remainder of the **building** it serves in conformance with Sentence (2).

(2) Where a **horizontal service space** or other concealed space is located above a required vertical **fire separation** other than a vertical shaft, such space need not be divided at the **fire separation** as required in Article 3.1.8.3. provided the construction between such space and the space below is constructed as a **fire separation** at least equivalent to that required for the vertical **fire separation**, except that where the vertical **fire separation** is not required to have a **fire-resistance rating** of more than 45 min, the **fire-resistance rating** is permitted to be not less than 30 min.

EXTRACTS FROM SECTION 9.9

9.9.8.5.(1) Not more than one **exit** from a **floor area** may lead through a lobby.

(2) The floor of the lobby referred to in Sentence (1) shall be not more than 4.5 m above **grade**, and the path of travel through the lobby to the outdoors shall not exceed 15 m.

(3) The lobby referred to in Sentence (1) shall conform in all respects with the requirements for **exits**, except that rooms other than **service rooms**, storage rooms and rooms of **residential** or **industrial occupancy** may open directly onto such lobby.

(4) Except as required in Sentence (5), an **exit** is permitted to lead through a lobby referred to in Sentence (1) provided the lobby is not located within an **interconnected floor space** other than as described in Sentence 3.2.8.2.(6).

(5) An **exit** which serves a **hotel** may lead through a lobby referred to in Sentence (1) provided the lobby is not located within an **interconnected floor space**.

(6) Where the lobby referred to in Sentence (1) and adjacent **occupancies** that are permitted to open into the lobby are **sprinklered**, the **fire separation** between such **occupancies** and the lobby need not have a **fire-resistance rating**.

EXTRACTS FROM SECTION 9.10

9.10.3.1. *The fire separation requirements in Article 9.10.3.1. are essentially identical to the requirements contained in Article 9.10.3.1. of Appendix A, "1986 Building Code References".*

APPENDIX C

9.10.13.2.(1) A 45 mm thick solid core wood door may be used where a minimum **fire-protection rating** of 20 min is permitted or between a **public corridor** and a **suite** provide the door conforms to CAN4-S113, “Standard Specification for Wood Core Doors Meeting the Performance Required by CAN4-S104 for Twenty Minute Fire-Rated Closure Assemblies”.

(2) Doors described in Sentence (1) shall have not more than a 6 mm clearance beneath and not more than 3 mm at the sides and top.

(3) Where a 45 mm thick solid core wood door is permitted in a required **fire separation**, the requirement for a **noncombustible** sill in NFPA 80, “Fire Doors and Windows” shall not apply.

9.10.13.10.(1) Except as described in Sentence (2), every door in a **fire separation** shall have a self-closing device.

(2) *(Not relevant to Section 9.8 reference.)*

9.10.15.3. Fire stops shall be constructed of not less than 0.38 mm sheet steel, 6 mm asbestos board, 12.7 mm gypsum wallboard, 12 mm plywood, waferboard, or strandboard, with joints having continuous support, 2 layers of 19 mm lumber with joints staggered, 38 mm lumber or materials conforming to Sentence 3.1.11.7.(1).

Part 11 *Details of the compliance alternatives in Part 11 of the Building Code are quite comprehensive and can be found in the current edition of the Building Code.*

APPENDIX D

Explanatory Notes

This Appendix contains explanatory notes to the Fire Code. They should be read in conjunction with the corresponding numerical reference in the Fire Code, Ontario Regulation 213/07.

FIRE CODE, DIVISION A

1.2.2.1. (1) Compliance with Division B

- (a) **Compliance via Acceptable Solutions.** If a building or facility design (e.g. material, component, assembly or system) can be shown to meet all provisions of the applicable acceptable solutions in Division B, there is no need to consult the objectives and functional statements in Division A to determine its compliance.
- (b) **Compliance via Alternative Solutions.** Where a design does not meet with some or all provisions of the acceptable solutions in Division B, an “alternative solution” may be proposed. A proponent of an alternative solution must demonstrate that the alternative solution addresses the same issues as the applicable acceptable solutions in Division B and their attributed objectives and functional statements. However, because the objectives and functional statements are entirely qualitative, demonstrating compliance with them in isolation is not possible. Therefore, Clause 1.2.2.1.(1)(b) identifies the principle that Division B establishes the quantitative performance targets that alternative solutions must meet. In many cases, these targets are not defined very precisely by the acceptable solutions. Nevertheless, Clause 1.2.2.1.(1)(b) makes it clear that an effort must be made to demonstrate that an alternative solution will perform as well as a design that would satisfy the applicable acceptable solutions in Division B - not “well enough” but “as well as”.

Objectives and Functional Statements Attributed to Acceptable Solutions

OFM Fire Code Supplement FCS-1, “Objectives and Functional Statements Attributed to the Acceptable Solutions”, sets out the objectives and functional statements which have been attributed to the acceptable solutions in Division B.

Many provisions in Division B serve clarification, administrative or explanatory purposes. In most cases, no objectives and functional statements have been attributed to such provisions and therefore no alternative solution is available for these provisions. This is also the case for a small number of technical provisions for which attributions have not been assigned.

In the case of 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 or are related to.

Level of Performance

Where Division B offers a choice between several possible compliance options, it is likely that these options may not all provide exactly the same level of performance. Among a number of possible options satisfying acceptable solutions in Division B, the option providing the lowest level of performance should generally be considered to establish the minimum acceptable level of performance to be used in evaluating alternative solutions for compliance with the Code.

Sometimes a single design will be used as an alternative solution to several sets of acceptable solutions in Division B. In this case, the level of performance required of the alternative solution should be at least equivalent to the overall level of performance established by all the applicable sets of acceptable solutions taken as a whole.

Areas of Performance

A subset of the acceptable solutions in Division B may establish criteria for particular types of designs (e.g. certain types of materials, components, assemblies, or systems). Often such subsets of acceptable solutions are all attributed to the same objective, 'Fire Safety' for example. In some cases, the designs that are normally used to satisfy this subset of acceptable solutions might also provide some benefits that could be related to some other objective, 'Fire Protection of the Building or Facility' for example. However, if none of the applicable acceptable solutions are linked to Objective OP1, 'Fire Protection of the Building or Facility', it is not necessary that alternative solutions proposed to replace these acceptable solutions provide a similar benefit related to 'Fire Protection of the Building or Facility'. In other words, the acceptable solutions in Division B establish acceptable levels of performance for compliance with the Code only in those areas defined by the objectives and functional statements attributed to the acceptable solutions.

Applicable Acceptable Solutions

In demonstrating that an alternative solution will perform as well as a design that would satisfy the applicable acceptable solutions in Division B, its evaluation should not be done in isolation. The evaluation should also take into consideration the impact of the proposed alternative solution on other Code requirements to ensure that it does not inadvertently contravene other acceptable solutions in the Code. In other words, the proposed alternative solution should perform as well as the acceptable solution which it is replacing and must not contravene other relevant acceptable solutions. For example, the use of sprinklers to protect the exterior wall of a building may permit combustible materials to be stored closer to that wall than otherwise permitted by the Code, but the proximity of the stored materials to the wall may in fact contravene firefighter access provisions elsewhere in the Code. All applicable acceptable solutions should be taken into consideration in demonstrating the compliance of an alternative solution.

Approval and Implementation

An alternative solution is not deemed to comply with Division B until it has been approved by the Chief Fire Official and has been implemented by the building/facility owner. In other words, enforcement action may be undertaken for outstanding violations of Division B acceptable solutions despite a proposal for an alternative solution. The alternative solution approval process and documentation requirements are described in Subsection 1.3.2. of Division C.

2.2.1.1. Listing of Objectives

Any gaps in the numbering sequence of the objectives are due to the fact that there is a master list of objectives covering the Fire Code, Ontario Building Code and the three principal model National Code Documents but not all objectives are pertinent to all Codes.

3.2.1.1. Listing of Functional Statements

The numbered functional statements are grouped according to functions that deal with closely related subjects. For example, the first group deals with fire risks, the second group deals with emergency egress and response, etc. There may be gaps in the numbering sequence for the following reasons:

- Each group has unused numbers which allows for the possible future creation of additional functional statements within any one group.

- There is a master list of functional statements covering the Fire Code, Ontario Building Code and the three principal National Code Documents but not all functional statements are pertinent to all Codes.

APPENDIX E

Conversion Factors

This Appendix contains conversion factors for the expanded volume of certain compressed gases and for conversion of metric and imperial values.

Calculation of Expanded Volume of Compressed Gas

For the purposes of Article 5.6.2.3. in Division B of the Fire Code, the expanded volume (EV) of compressed gas can be calculated by using the water capacity (W) of the storage tank containing the compressed gas and the factor (F) shown in the table below for a given gas as follows:

$$EV (m^3) = W (m^3) \times F$$

(NOTE: Where W is known in ft³, multiply by 0.02832 to convert to m³ then apply above formula.)

Gas	Factor F
Acetylene	360
Air	728
Ammonia	901
Argon	842
Carbon Monoxide	706
Ethylene	487
Fluorine	961
Helium	754
Hydrogen	850
Methane	636
Nitrogen	690
Oxygen	861
Propane	270

Example:

Propane is stored in a tank with a water capacity of 25 ft³.

This is equivalent to $25 \times 0.02832 = 0.708 \text{ m}^3$

Applying the formula $EV = 0.708 \times 270 = 191 \text{ m}^3$

The expanded volume of the propane in this example is therefore 191 m³.

Metric-Imperial Conversion

	To Convert Value From Metric Units		To Imperial Units		Multiply By
	Name	Symbol	Name	Symbol	
Length	millimetres	mm	inches	in	0.039370
	centimetres	cm	inches	in	0.39370
	metres	m	feet	ft	3.28084
Area	square centimetres	cm ²	square inches	in ²	0.1550
	square metres	m ²	square feet	ft ²	10.764
Volume	millilitres	mL	fluid ounces	fl oz	0.0352 ⁽¹⁾
	cubic metres	m ³	cubic feet	ft ³	35.3147
	litres	L	gallons	gal	0.21997 ⁽²⁾
Mass/Weight	kilograms	kg	pounds	lb	2.2046
	metric tonnes (1000 kg)	t	short tons (2000 lb)	T	1.1023
Temperature	degrees Celsius	°C	degrees Fahrenheit	°F	1.8 and add 32
Velocity	centimetres per second	cm/s	feet per minute	ft/min	1.96848
	metres per second	m/s	feet per second	ft/s	3.28084
	metres per minute	m/min	feet per minute	ft/min	3.28084
Flow	litres per minute	L/min	gallons per minute	gal/min (gpm)	0.21997 ⁽²⁾
	litres per hour	L/h	gallons per minute	gal/min (gpm)	0.003666 ⁽³⁾
	cubic metres per minute	m ³ /min	cubic feet per minute	ft ³ /min (cfm)	35.315
	cubic metres per hour	m ³ /h	cubic feet per minute	ft ³ /min (cfm)	0.58857
Density (Sprinklers)	litres per minute per square metre	L/min/m ²	gallons per minute per square foot	gal/min/ft ²	Note ⁽⁴⁾
Energy	megajoules	MJ	British thermal units	Btu	947.82
Viscosity (Kinematic)	square millimetres per second	mm ² /s	square inches per second	in ² /s	0.001550
	centistokes	cSt	square inches per second	in ² /s	0.001550
	stokes	St	square feet per second	ft ² /s	0.001076
Illumination	lux	lx	foot-candles	fc	0.09290
Force	newtons	N	poundforce	lbf	0.22481
	kilonewtons	kN	poundforce	lbf	224.809
Pressure	kilopascals (kN/m ²) ⁽⁵⁾	kPa	poundforce per square inch	lbf/in ² (psi)	0.14504
	Kilopascals (kN/m ²) ⁽⁵⁾	kPa	poundforce per square foot	lbf/ft ² (psf)	20.886

Notes to table:

- (1) 0.03381 US fl oz
- (2) 0.2642 US gal
- (3) 0.004403 US gal
- (4) Convention does not use Imperial values for sprinkler densities.
The US conversion factor is 0.02454 US gal/min/ft².
- (5) 100 kPa = 1 bar

