



FIRE SAFETY MAINTENANCE INSPECTION GUIDE

BUSINESS/PERSONAL SERVICE

INITIAL FSMI DATE: (DD/MM/YY)		TIME:		FOLLOW UP FSMI DATE: (DD/MM/YY)		TIME:	
BUILDING ADDRESS:				BUILDING NAME:			
PRIMARY CONTACT NAME:		PRIMARY CONTACT TITLE:		PRIMARY CONTACT EMAIL:		PRIMARY CONTACT PHONE:	
ADMINISTRATION				N/A	Y	N	COMMENT
1.1	🔴 Fire Safety Plan			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	halifax.ca/firesafetyplans
1.2	Fire Alarm System - annually			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.3	Sprinkler System - annually			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.4	Standpipe/Hose System - annually			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.5	Private Hydrant - annually			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.6	Parking Garage - CO Exhaust System - annually			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.7	Laundry Drying equipment duct cleaning - annually			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.8	Heating Equipment - annually			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.9	Chimney – annually			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.10	Emergency / Exit Lights - monthly and annually			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.11	Emergency Generator - monthly and annually			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.12	Manual Fire Alarm Pull Station - monthly			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Contact your Fire Alarm Company for instructions prior to starting this
1.13	Egress and Exit Doors - monthly			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1.14	Fire Extinguishers – monthly (Log Book or on Tag)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
EXTERIOR				N/A	Y	N	COMMENT
2.1	Civic # posted and visible [Min 8"]			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.2	Fire Apparatus access to at least one building face			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.3	Private Hydrant unobstructed, accessible, painted yellow			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.4	FD Connection: accessible/capped/swivels work			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.5	Fuel Cylinders/Tanks in safe condition (Visual)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.6	Garbage Containers (10' from Building)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.7	Exit / Egress Pathway(s) clear and unobstructed			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.8	Outside Exit Landings & Steps in safe condition			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
FIRE DETECTION SYSTEMS				N/A	Y	N	COMMENT
3.1	Fire Alarm System in working order (Visual)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.2	🔴 Monitoring Co. information on panel (If FA is monitored)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.3	Pull Stations visible & accessible			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.4	🔴 Signs above Pull Stations (if not monitored)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
FIRE SUPPRESSION SYSTEMS				N/A	Y	N	COMMENT
4.1	Sprinkler System is in working order (Visual)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.2	Spare Sprinkler Heads <300=6, 300-1000=12, >1000=24			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.3	Sprinkler Wrench in cabinet			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.4	Standpipe/Hose System maintained (Visual)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.5	Fire Extinguishers inspected annually (Check Tag)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.6	Fire Extinguishers Wall mounted and accessible			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
FIRE SEPARATIONS				N/A	Y	N	COMMENT
5.1	Doors in closed position			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.2	Door self-closing/latching devices working			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.3	Walls/Ceilings free from holes and openings			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



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EXITS		N/A	Y	N	COMMENT
6.1	Exit doors operable and accessible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.2	Exits and Hallways are illuminated (Adequately)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.3	Exit Signs are illuminated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.4	Acceptable Locking Devices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.5	Exit / Egress Pathway(s) clear and unobstructed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.6	Emergency Lights working (Random Check)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.7	ⓘ Emergency Procedures posted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.8	Floor Numbering in Exit Stairwells	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
STORAGE		N/A	Y	N	COMMENT
7.1	In a neat and orderly fashion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.2	18" below sprinkler heads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.3	39" below ceiling if non-sprinklered	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.4	3' from electrical panels not located in an electrical room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.5	Service Rooms free from storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.6	Propane Tanks properly stored	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.7	Flammable/combustible liquids properly stored	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.8	Compressed Gas Cylinders/Tanks properly stored	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
BUILDING SERVICES		N/A	Y	N	COMMENT
8.1	Furnace/Chimney in a safe condition (Visual)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.2	Electrical in a safe condition (Visual)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.3	Extension cords properly used (temporary use only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.4	Electrical Components secure (Visual)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.5	Electrical Panel, Outlet & Switches have face plates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.6	Garbage Room (excessive amount or room)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.7	Laundry Drying Equipment (lint traps)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.8	Laundry Drying Equipment (ducting)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

COMMENTS IF REFERRING TO FIRE PREVENTION

STATION OFFICER NAME (Print)	FSMI PROGRAM ADMINISTRATOR PHONE	FSMI PROGRAM ADMINISTRATOR EMAIL	STATION	PLATOON
	902-490-FSMI (3764)	fireprevention@halifax.ca		

We have completed a Fire Safety Maintenance Inspection (to the level of firefighter training) in your building. The items marked "N" require your attention.

<input type="checkbox"/> Follow up required with appointment	Date:		Time:	
<input type="checkbox"/> Forward to Fire Prevention – Out of Scope				
<input type="checkbox"/> Forward to Fire Prevention – Non-Compliance				
<input type="checkbox"/> No Deficiencies				



HALIFAX REGIONAL FIRE & EMERGENCY

Fire Prevention Division

FIRE SAFETY MAINTENANCE INSPECTION GUIDE

Business/Personal Service Edition



INTRODUCTION

Initiated in 2016, the Fire Safety Maintenance Inspection (FSMI) program supports Halifax Regional Fire and Emergency's commitment to a safe community through protection of life, property, and the environment. The FSMI program is designed to be used by both building owners and municipal staff to ensure a transparent, predictable, and consistent inspection process.

This document is structured to begin with a user-friendly checklist (above), followed by a detailed guide (below). It is fillable, saveable, and contains bookmarks and links for quick navigation.

The code can sometimes differ depending on the building being inspected. With this in mind, the "i" icon is used when a requirement only applies to certain conditions. They are found on the checklist with a more detailed explanation found in the corresponding sections of the guide.

Please feel free to send feedback or suggestions for improvement to fireprevention@halifax.ca.

Together, We Make a Difference!



1 ADMINISTRATION

1.1 Fire Safety Plan

Code Reference and Summary - NFC 2.8.1.1., 2.8.2.1, 2.8.3.1.

A Fire Safety Plan (FSP) is required in every building containing an Assembly Occupancy and in Residential Occupancies required by the NBC to have a fire alarm system.

NBC Determination of Requirement for a Fire Alarm System in Residential Occupancies:

- *A fire alarm system shall be installed in a building in which an automatic sprinkler system is installed (1997 to date).*
- *Except as permitted below, a fire alarm system shall be installed in a building that is not sprinklered throughout and that contains:*
 - *more than 3 storeys, including the storeys below the first storey*
 - *a total occupant load more than 300 or an occupant load more than 150 above or below the first storey*

Where a FSP is required in buildings or areas as described above, the FSP shall be prepared in cooperation with the fire department and other applicable regulatory authorities and shall include:

- *the emergency procedures to be used in case of fire, including*
 - *sounding the fire alarm,*
 - *notifying the fire department,*
 - *instructing occupants on procedures to be followed when the fire alarm sounds,*
 - *evacuating occupants, including special provisions for persons requiring assistance,*
 - *confining, controlling and extinguishing the fire,*
- *the appointment and organization of designated supervisory staff to carry out fire safety duties,*
- *the training of supervisory staff and other occupants in their responsibilities for fire safety,*
- *documents, including diagrams, showing the type, location and operation of the building fire emergency systems,*
- *the holding of fire drills,*
 - *High Buildings – Every 2 months for supervisory staff*
 - *Daycares – Every 1 month for supervisory staff*
 - *All other buildings in scope of this program – Every 12 months for supervisory staff*
- *the control of fire hazards in the building, and*
- *the inspection and maintenance of building facilities provided for the safety of occupants.*

The FSP shall be reviewed at intervals not greater than 12 months to ensure that it takes account of changes in the use and other characteristics of the building.



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- *Staff members of daycare centres in which more than 10 children are cared for shall conduct fire prevention inspections in conformance with the fire safety plan at intervals not greater than one month*

Every owner of a building shall appoint a chief fire warden if the building contains an assembly occupancy (Group A) with an occupant load greater than 200 persons

1) A chief fire warden appointed above shall, at least every 6 months,

a) inspect the building and any related buildings containing the occupancies described assembly occupancies with an occupant load greater than 200 for fire hazards, and

b) provide a written report to the owner indicating

i) the condition of the means of egress,

ii) the condition of the fire protection system, and

iii) any other conditions respecting fire safety in the building or related buildings.

2) The owner shall keep a copy of the report referred to in Clause (1)(b) for 7 years and shall make the report available to a fire official upon request.

- ① **APPLICABILITY:** A Fire Safety Plan is required for all D occupancies containing a Fire Alarm system and/or store hazardous materials.
- ✓ Ask the owner or owner's agent if the FSP is being reviewed annually to ensure that it takes account of changes in the use and other characteristics of the building.
- ✓ A FSP will include the applicable items listed above. Some owners or owner's agents may feel that because they have "evacuation procedures" posted in their building that this means they have an approved FSP. Evacuation procedures are only one part of a FSP - unless the FSP addresses the other applicable requirements of a FSP as listed above it does not meet the requirements of the NFC.
- ✓ If they cannot provide you with a FSP check, "N" on the FSMI form and instruct the owner or owner's agent that they are required to have a FSP. For assistance in preparing their FSP they can access our FSP Templates found at halifax.ca/firesafetyplans. Advise owner or owner's agent to contact 311 if assistance from the Fire Prevention Division is required.

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1.2 Fire Alarm System - annually

Code Reference and Summary- NFC 6.3.1.2. (1), Div C 2.2.1.2.

All fire alarm systems are required to be inspected annually.

Where tests, inspections, maintenance or operational procedures are required to be performed on a fire safety system, records shall be made and the original or a copy shall be retained at the premises for examination by the authority having jurisdiction (AHJ).

- ✓ A building with a fire alarm system is best identified by the presence of red pull stations. Note that a security system that includes fire detection would not be considered a fire alarm system.
- ✓ Ask to see a copy of the inspection report to ensure that there are no outstanding deficiencies.



- ✓ If the owner or owner's agent does not have access to the report because it is a shared system (part of a larger building system), check "N/A" on the FSMI checklist and type "shared system" in the comment section. This will prompt the FSMI Program Administrator to contact the responsible party to obtain the applicable paperwork to ensure the system is being maintained as required.
- ✓ HRFE's FP-377 form filled out by a third party company may be considered an acceptable equivalent. The form can be located at halifax.ca/FP377.
- ✓ If record from the qualified company verifies there are deficiencies, check the "N" Box on the FSMI form.
- ✓ Tell the owner or owner's agent that a report from a qualified company must be provided at the time of the follow up FSMI. The owner or owner's agent must show documented proof that deficiencies have been corrected, verbal confirmation is not acceptable.

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1.3 Sprinkler System - annually

Code Reference and Summary - NFC 6.4.1.1. (1), Div C 2.2.1.2.

As per NFPA 25 requirements, all sprinkler systems shall be inspected annually.

Section 4 of the NFPA further states that records shall be made for all inspections, tests, and maintenance of the system and its components and shall be made available to the authority having jurisdiction upon request. Records shall indicate the procedure performed (e.g., inspection, test, or maintenance), the organization that performed the work, the result, and the date.

Where tests, inspections, maintenance or operational procedures are required to be performed on a fire safety system, records shall be made and the original or a copy shall be retained at the premises for examination by the authority having jurisdiction (AHJ).

- ✓ Ask to see a copy of the inspection report to ensure that there are no outstanding deficiencies.
- ✓ If the owner or owner's agent does not have access to the report because it is a shared system (part of a larger building system), check "N/A" on the FSMI checklist and type "shared system" in the comment section. This will prompt the FSMI Program Administrator to contact the responsible party to obtain the applicable paperwork to ensure the system is being maintained as required.
- ✓ HRFE Form FP-377 may be considered an acceptable equivalent, which can be located at halifax.ca/FP377.
- ✓ Deficiencies are usually shown on the last page and are enforceable. If a report has "recommendations", they are not enforceable the same way that deficiencies are.
- ✓ Unless the record from the qualified company verifies there are no deficiencies, check "N" on the FSMI form.
- ✓ Tell the owner or owner's agent that a report from a qualified company must be provided at the time of the follow up. The owner or owner's agent must show proof that deficiencies have been corrected, verbal confirmation is not acceptable.

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1.4 Standpipe/Hose System - annually

Code Reference and Summary - NFC 6.4.1.1. (1) Div C 2.2.1.2.



Standpipe and Hose Systems shall be inspected and tested to meet the minimum requirements for the routine inspection, testing, and maintenance of standpipe and hose systems as listed in NFPA 25.

Where tests, inspections, maintenance or operational procedures are required to be performed on a fire safety system, records shall be made and the original or a copy shall be retained at the premises for examination by the authority having jurisdiction (AHJ).

- ✓ Ask to see a copy of the current (one year or less) inspection report to ensure that there are no outstanding deficiencies.
- ✓ If the owner or owner's agent does not have access to the report because it is a shared system (part of a larger building system), check "N/A" on the FSMI checklist and type "shared system" in the comment section. This will prompt the FSMI Program Administrator to contact the responsible party to obtain the applicable paperwork to ensure the system is being maintained as required.
- ✓ If there is a sprinkler system in the building, the standpipe and/or hose is generally shown on the same report.
- ✓ HRFE Form FP-377 may be considered an acceptable equivalent, which can be located at halifax.ca/FP377.
- ✓ Unless the record from the qualified company verifies there are no deficiencies, check "N" on the FSMI form.
- ✓ Tell the owner or owner's agent that a report from a qualified company must be provided at the time of the follow up. The owner or owner's agent must show proof that deficiencies have been corrected, verbal confirmation is not acceptable.

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1.5 Private Hydrant - annually

Code Reference and Summary - NFC 6.4.1.1. (1), Div C 2.2.1.2.

As per the requirements of NFPA 25, private hydrants shall be inspected annually. All equipment shall be maintained in proper working condition, consistent with the manufacturer's recommendations. Hydrants shall be lubricated annually to ensure that all stems, caps, plugs, and threads are in proper operating condition.

Where tests, inspections, maintenance or operational procedures are required to be performed on a fire safety system, records shall be made and the original or a copy shall be retained at the premises for examination by the authority having jurisdiction (AHJ).

- ✓ Ask to see a copy of the inspection report to ensure that there are no outstanding deficiencies.
- ✓ If the owner or owner's agent does not have access to the report because it is a shared system (part of a larger building system), check "N/A" on the FSMI checklist and type "shared system" in the comment section. This will prompt the FSMI Program Administrator to contact the responsible party to obtain the applicable paperwork to ensure the system is being maintained as required.
- ✓ HRFE Form FP-377 may be considered an acceptable equivalent, which can be located at halifax.ca/FP377.
- ✓ Unless the record from the qualified company verifies there are no deficiencies, check "N" on the FSMI form.



- ✓ Tell the owner or owner's agent that a report from a qualified company must be provided at the time of the follow up. The owner or owner's agent must show proof that deficiencies have been corrected, verbal confirmation is not acceptable.

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1.6 Parking Garage - CO Exhaust System - annually

Code Reference and Summary - NFC 2.1.3.6, 5.1.3.1, NBC 6.3.1.4.

Inspection, Maintenance and Testing of Fire Safety Devices

Where specific references to the inspection, maintenance and testing of fire safety devices and building fire safety features are not made in this Code, such devices and features shall be maintained to ensure they operate as per their design or function according to their original intent.

Ventilation shall be provided for hazardous locations and processes in conformance with the NBC and with this Part.

Ventilation of Storage Garages

- 1) Except as provided in Sentences (4) and (6), an enclosed storage garage for five or more motor vehicles shall have a mechanical ventilation system designed to
 - a. limit the concentration of carbon monoxide to not more than 100 parts per million parts of air,*
 - b. limit the concentration of nitrogen dioxide to not more than 3 parts per million parts of air, where the majority of the vehicles stored are powered by diesel-fueled engines, or*
 - c. provide, during operating hours, a continuous supply of outdoor air at a rate of not less than 3.9 L/s for each square metre of floor area**
- 2) Mechanical ventilation systems provided in accordance with Clause (1)(a) shall be controlled by carbon monoxide monitoring devices, and systems provided in accordance with Clause (1)(b) shall be controlled by nitrogen dioxide or other acceptable monitoring devices.*
- 3) Mechanical ventilation systems provided in accordance with Sentence (1) shall be designed such that the pressure in the storage garage is less than the pressure in adjoining buildings of other occupancy, or in adjacent portions of the same building having a different occupancy.*
- 4) In storage garages subject to the requirements of Sentences (1) and (2), where motor vehicles are parked by mechanical means, the ventilation requirements maybe reduced by one half.*
- 5) Except as provided in Sentence (6), ticket and attendant booths of storage garages shall be pressurized with a supply of uncontaminated air.*
- 6) The requirements of Sentences (1) to (5) shall not apply to open-air storeys in a storage garage.*

- ✓ If there is an indoor parking garage in the building, ask to see the annual CO exhaust system inspection record.
- ✓ If there is an indoor parking garage in the building and no CO exhaust system, identify this as an Out of Scope item and the Fire Prevention Division will follow up.
- ✓ If there is no record kept check "N" on the FSMI form.
- ✓ Instruct the owner or owner's agent to begin doing the annual inspections and keeping the required records.



1.7 Laundry Drying equipment duct cleaning - annually

Code Reference and Summary - NFC 2.4.7.1., NFC 2.6.1.6.

Electrical installations shall be used and maintained so as not to constitute an undue fire hazard.

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.

- ✓ Clothes dryers are required to be installed, exhausted, operated, and maintained as per manufacturer's instructions.
- ✓ Manufacturer's instructions require that the exhaust ducting be cleaned and inspected once a year to prevent lint build-up, and, that the interior of the appliance and exhaust duct be cleaned once a year by qualified service personnel.
- ✓ Ask the owner or owner's agent when the exhaust ducting was last cleaned & inspected to ensure there is no accumulation of lint creating an undue fire hazard.
- ✓ If the owner or owner's agent does not have a record of the dryer ducting being cleaned & inspected within the last year, check "N" on the FSMI form.
- ✓ Ask to view the manufacturer's requirements for the inspection and maintenance for the appliance and instruct the owner or owner's agent to have the appliance inspected as per these instructions. (Manufacturer's requirements will most likely require annual inspections)

1.8 Heating Equipment - annually

Code Reference and Summary - NFC 2.6.1.6., Div C 2.2.1.2.

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.

- ✓ Heating appliances are required to be operated and maintained as per manufacturer's instructions.
- ✓ If the owner or owner's agent does not have access to the report because it is a shared system (part of a larger building system), check "N/A" on the FSMI checklist and type "shared system" in the comment section. This will prompt the FSMI Program Administrator to contact the responsible party to obtain the applicable paperwork to ensure the system is being maintained as required.
- ✓ Ask to see a copy of the annual inspection report to ensure that there are no outstanding deficiencies.
- ✓ If the owner or owner's agent does not have an annual inspection report check "N" on the FSMI form.
- ✓ Ask to view the manufacturer's requirements for the inspection and maintenance for the appliance and instruct the owner or owner's agent to have the appliance inspected as per these instructions. (Manufacturer's requirements will most likely require annual inspections)

1.9 Chimney – annually

Code Reference and Summary - NFC 2.6.1.4., Div C 2.2.1.2.



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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.

Every chimney, flue and flue pipe shall be inspected to identify any dangerous condition:

- *at intervals not greater than 12 months,*
- *at the time of addition of any appliance, and*
- *after any chimney fire.*

NFC Appendix A states:

External inspection of enclosed chimneys and surrounding construction may require the installation of one or more access openings in the enclosure surrounding the chimney. The presence of scorched or charred adjacent combustible construction will indicate the need for further investigation of the cause of the overheating.

Internal inspection of chimneys can be accomplished by lowering a light from the top, insertion of a light at the bottom or at intermediate locations, together with the use of one or more mirrors.

During inspection of a chimney connected to an operating appliance, the presence of dense smoke at the outlet will indicate improper operation of the appliance, incorrect sizing of the chimney or that unsuitable fuels are being used. These factors must be promptly corrected to reduce the accumulation of combustible deposits on the chimney and flue pipe walls.

The presence in a chimney of deposits of soot or creosote in excess of 3 mm (1/8") thick will indicate the need for immediate cleaning, possible modification of burning procedures, and more frequent inspections.

Chimneys, flues and flue pipes shall be cleaned as often as necessary to keep them free from dangerous accumulations of combustible deposits.

Where tests, inspections, maintenance or operational procedures are required to be performed on a fire safety system, records shall be made and the original or a copy shall be retained at the premises for examination by the authority having jurisdiction (AHJ).

- ✓ Chimneys are required to be inspected annually. The annual inspection should address the inspection requirements as stated in Appendix A of the NFC (listed above).
- ✓ If the owner or owner's agent does not have access to the report because it is a shared system (part of a larger building system), check "N/A" on the FSMI checklist and type "shared system" in the comment section. This will prompt the FSMI Program Administrator to contact the responsible party to obtain the applicable paperwork to ensure the system is being maintained as required.
- ✓ If a gas fired appliance has a direct vent (short run) through an exterior wall the furnace technician will generally inspect the vent pipe as part of the furnace inspection. If the vent pipe runs through an existing chimney, the chimney still needs to be inspected annually as the pointing, cap, interior etc. may be damaged and could cause improper venting leading to an unsafe condition.
- ✓ Ask to see a copy of the annual chimney inspection report to ensure that there are no outstanding deficiencies. The annual inspection should show the name of the person who performed the inspection (printed and legible) and be signed and dated by the same.
- ✓ If the owner or owner's agent does not have an annual inspection report check "N" on the FSMI form.
- ✓ Instruct the owner or owner's agent to have a qualified person inspect the chimney and to have any necessary repairs done.



1.10 Emergency / Exit Lights - monthly and annually

1.10.1 Emergency / Exit Lights inspected annually

Code Reference and Summary - NFC 6.5.1.6.(2)(b), 6.5.1.8.Div C 2.2.1.2.

Unit equipment for emergency lighting shall be inspected, tested and maintained in conformance with the NFC.

Self-contained emergency lighting unit equipment shall be inspected at intervals not greater than 12 months to ensure that the unit will provide emergency lighting for a duration equal to the design criterion under simulated power failure conditions (30 minutes / 2 hours high buildings / 2 hours in the room with the generator transfer switch if there is a generator for emergency power systems).

After completion of this test, the charging conditions for voltage and current and the recovery period shall be tested to ensure that the charging system is functioning in accordance with the manufacturer's specifications.

Where tests, inspections, maintenance or operational procedures are required to be performed on a fire safety system, records shall be made and the original or a copy shall be retained at the premises for examination by the authority having jurisdiction (AHJ).

1) Except as provided in Sentence (2), exit signs shall be inspected at intervals not greater than 12 months to ensure that the exits 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

- ✓ Both direct wired and plug-in style self-contained units are to be inspected annually by a qualified person trained to perform the required tests. Emergency / Exit lighting supplied by an emergency generator is inspected within Section 1.11 Emergency Generator inspected monthly and annually; however, if there is a generator room there should be a self-contained unit in the generator room which requires an annual inspection.
- ✓ HRFE Form FP-377 may be considered an acceptable equivalent, which can be located at halifax.ca/FP377.
- ✓ Ask to see a copy of the inspection report to ensure that there are no outstanding deficiencies.
- ✓ If the owner or owner's agent does not have access to the report because it is a shared system (part of a larger building system), check "N/A" on the FSMI checklist and type "shared system" in the comment section. This will prompt the FSMI Program Administrator to contact the responsible party to obtain the applicable paperwork to ensure the system is being maintained as required.
- ✓ Unless the record from the qualified company verifies that there are no deficiencies, check the N Box on the FSMI form.
- ✓ Tell the owner or owner's agent that a report from a qualified company must be provided at the time of the follow up. The owner or owner's agent must show proof that deficiencies have been corrected. It is not acceptable for them to just say that all deficiencies have been corrected.



1.10.2 Emergency / Exit Lights monthly log (self-contained units)

Code Reference and Summary - NFC 6.5.1.6., Div C 2.2.1.2.

Self-contained emergency lighting unit equipment shall be tested 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, and*
- (d) the battery surface is kept clean and dry.*

Where tests, inspections, maintenance or operational procedures are required to be performed on a fire safety system, records shall be made and the original or a copy shall be retained at the premises for examination by the authority having jurisdiction (AHJ).

- ✓ Both direct wired and plug-in style self-contained units are to be checked monthly by a qualified person trained to perform the required monthly checks.
- ✓ Emergency / Exit lighting supplied by an emergency generator is checked monthly within Section 1.11 Emergency Generator inspected monthly and annually; however, if there is a generator room there should be a self-contained unit in the generator room which requires a monthly check. Ask the owner or owner's agent to see their monthly maintenance records.
- ✓ If there is no record kept of the emergency lighting monthly inspections, check "N" on the FSMI form.
- ✓ Instruct the owner or owner's agent to begin doing the monthly inspections and keeping the required records.

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1.11 Emergency Generator - monthly and annually

Code Reference and Summary - NFC 6.5.1.1.(1), CAN/CSA-C282, Div C 2.2.1.2.

Emergency Power Systems shall be inspected, tested and maintained in conformance with CAN/CSA-C282, "Emergency Electrical Power Supply for Buildings."

A permanent log of the inspection, testing, and maintenance of the emergency electrical power supply system shall be maintained in accordance with the manufacturer's manual of operating and maintenance instructions.

This log shall be kept on site and shall include:

- (a) the date on which an inspection, testing, and maintenance exercise was carried out;*
- (b) the name(s) of the person(s) who performed the inspection, testing, and maintenance;*
- (c) notes on any unsatisfactory conditions observed or discovered and the steps taken to correct such conditions; and*
- (d) copies of the design and installation performance test certificates.*

CAN/CSA-C282

Table 3

Monthly inspection, test, and maintenance requirements

2. Test and verify the entire system as follows:



- (a) Simulate a failure of the normal electrical supply to the building.*
- (b) Operate the system under at least 30% of the rated load for 60 min.*
- (c) Operate all automatic transfer switches under load.*
- (d) Inspect brush operation for sparking.*
- (e) Inspect for bearing seal leakage.*
- (f) Inspect for correct operation of all auxiliary equipment, e.g., radiator shutter control, coolant pumps, fuel transfer pumps, oil coolers, and engine room ventilation system(s).*
- (g) Record the readings for all instruments in the log (see Clause 11.5.3) and verify that they are normal.*
- (h) Drain the exhaust system condensate trap.*

11.5.3 Records

A permanent log of the maintenance work (including inspections and tests) shall be maintained in accordance with the manufacturer's manual of operating and maintenance instructions. The permanent log shall be kept on site and shall include at least the following:

- (a) the date on which the work was done;*
- (b) a note of parts replaced;*
- (c) a note of any unsatisfactory condition discovered and the steps taken to correct it;*
- (d) the name of the person who performed the work; and*
- (e) a note verifying that any switches or controls that were deactivated for safety purposes during maintenance have been restored to their intended operating condition.*

Where tests, inspections, maintenance or operational procedures are required to be performed on a fire safety system, records shall be made and the original or a copy shall be retained at the premises for examination by the authority having jurisdiction (AHJ).

- ✓ Ask the owner or owner's agent to see their maintenance log book(s) for the generator.
- ✓ If the owner or owner's agent does not have access to the report because it is a shared system (part of a larger building system), check "N/A" on the FSMI checklist and type "shared system" in the comment section. This will prompt the FSMI Program Administrator to contact the responsible party to obtain the applicable paperwork to ensure the system is being maintained as required.
- ✓ If there is no record of the required maintenance, check "N" on the FSMI form.
- ✓ Instruct the owner or owner's agent to have a qualified person, trained to perform all maintenance work as per manufacturer's operating & maintenance instructions, inspect the emergency power system and keep the required records.

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1.12 Manual Fire Alarm Pull Station - monthly

NFC 6.3.1.2, CAN/ULC-S536, Div C 2.2.1.2.

Monthly



Note: The inspection and test requirements in this Subsection may be omitted during the month when the yearly tests are being performed.

While on the emergency power supply, inspect and test the following to confirm the operability of the fire alarm system.

Note: It is recommended that tests be coordinated with emergency power generator tests.

One initiating field device or manual pull station shall be operated on a rotational basis and the system inspected for operation as follows:

(i) An alert signal and an alarm signal confirmed on a rotational basis to a minimum of one zone or as may be required by the Fire Safety Plan for the building;

(ii) The primary annunciator inspected to determine that the tested device annunciated correctly;

- ✓ If the property has a fire alarm system, ask to see a copy of the monthly manual pull station maintenance log which verifies that, while on emergency (standby) power supply, one manual pull station is tested each month (on a rotational basis).
- ✓ If the owner or owner's agent does not have access to the report because it is a shared system (part of a larger building system), check "N/A" on the FSMI checklist and type "shared system" in the comment section. This will prompt the FSMI Program Administrator to contact the responsible party to obtain the applicable paperwork to ensure the system is being maintained as required.
- ✓ If there is no record kept check "N" on the FSMI form.
- ✓ If it is not a shared system, instruct the owner or owner's agent to ask their Fire Alarm Inspection Company for instructions on how to perform the required monthly checks on the pull stations/initiating devices forming part of their FA System. Once instructed on how to perform the checks, instruct them to begin doing the monthly checks and keeping a log of same.

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1.13 Egress and Exit Doors - monthly

Code Reference and Summary - NFC 2.7.2.1., 2.7.2.2., Div C 2.2.1.2..

All doors forming part of a means of egress shall be tested at intervals not greater than one month to ensure that they are operable.

The safety features of revolving doors shall be tested at intervals not greater than 12 months.

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.

When doors are equipped with electromagnetic locks, these locks shall be tested at intervals not greater than 12 months.

Where tests, inspections, maintenance or operational procedures are required to be performed on a fire safety system, records shall be made and the original or a copy shall be retained at the premises for examination by the authority having jurisdiction (AHJ).

- ✓ Ask to see a copy of the monthly egress and exit door maintenance logs.
- ✓ If there is no record kept check "N" on the FSMI form.



- ✓ Instruct the owner or owner's agent to begin doing the monthly inspections and keeping the required records.

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1.14 Fire Extinguishers – monthly (*Log Book or on Tag*)

Code Reference and Summary - NFC 6.2.1.1., Div C 2.2.1.2.

Fire extinguishers shall be inspected at a minimum of 30-day intervals and at more frequent intervals when circumstances require.

Where manual inspections are conducted, records for manual inspections shall be kept on a tag or label attached to the fire extinguisher, on an inspection checklist maintained on file, or by an electronic method.

Records shall be kept to demonstrate that at least the last 12 monthly inspections have been performed.

Personnel making manual inspections shall keep records of all fire extinguishers inspected, including those found to require corrective action.

Where at least monthly manual inspections are conducted, the date the manual inspection was performed and the initials of the person performing the inspection shall be recorded.

Periodic inspection shall include a check of at least the following items:

- *Location in designated place*
- *No obstruction to access or visibility*
- *Pressure gauge reading or indicator in the operable range or position*
- *Fullness determined by weighing or hefting for self-expelling-type extinguishers, cartridge-operated extinguishers, and pump tanks*
- *Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers*
- *Indicator for non-rechargeable extinguishers using push-to-test pressure indicators*
- *Verifying that operating instructions on nameplates are legible and face outward*
- *Checking for broken or missing safety seals and tamper indicators*
- *Examination for obvious physical damage, corrosion, leakage, or clogged nozzle*

When an inspection of any fire extinguisher reveals a deficiency in any of the conditions listed above, immediate corrective action shall be taken.

- ✓ Ask the owner or owner's agent if they keep the portable fire extinguisher monthly inspection records on each portable fire extinguisher's tag or in a separate log.
- ✓ If in a separate log, ask to see the records.
- ✓ If kept on the portable fire extinguisher tag, defer this item to be verified during inspection of the building.
- ✓ If there is no record kept of the portable fire extinguisher monthly inspections (either on the portable fire extinguisher tag or in a separate log), check "N" on the FSMI form.
- ✓ Instruct the owner or owner's agent to begin doing the monthly inspections and keeping the required records.

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2 EXTERIOR

2.1 Civic # posted and visible [Min 8"]

Code Reference and Summary - By-law C-300

As per HRM Civic Addressing By-Law (C-300), civic numbers must be posted on the front of the building and be visible from the street. If the building is more than 100 ft. (30m) from the road and/or is hidden from view, the sign must be posted at the beginning of the driveway.

To meet regulations, the sign should be at least 48 inches (1.2m) from the ground.

Civic numbers shall be in Arabic numerals only.

The minimum height of numerals on residential properties shall not be less than 4 inches, and not less than 8 inches on non-residential properties.

The color of the numerals shall clearly contrast with the background upon which the numbers are displayed.

- ✓ The minimum height of the numerals is 8" for non-residential properties.
- ✓ Civic numbers shall be posted in a location and be of sufficient size to be seen from the street.
- ✓ If the building is set back from the street instruct the owner or owner's agent to have proper building or suite-identifying signage posted at the beginning of the driveway. Advise owner or owner's agent to contact 311 if assistance from the Fire Prevention Division is required.
- ✓ Bottom line ... as emergency responders, is the civic number clearly visible to you should you be responding to an emergency at this location?

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2.2 Fire Apparatus access to at least one building face

Code Reference and Summary - NFC 2.5.1.1.(1), 2.5.1.5.(1) (2)

Fire department vehicles shall have direct access to at least one face of every building by means of a street, yard or roadway in conformance with the NBC.

Streets, yards and roadways provided for fire department access shall be maintained so as to be ready for use at all times by fire department vehicles.

Vehicles shall not be parked to obstruct access by fire department vehicles and signs shall be posted prohibiting such parking.

- ✓ Is there access to the building for Fire Department vehicles?

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2.3 Private Hydrant unobstructed, accessible, painted yellow

Code Reference and Summary - NFC 6.4.1.1., NFPA 25 7.4.2.2., HRWC Standard Specifications Section: 33 11 00 Water Mains – 3.8.8.



As per the requirements of NFPA 25, private hydrants shall be kept free of snow, ice, or other materials and protected against mechanical damage so that free access is ensured.

As per HRWC, Standard Specifications Section: 33 11 00 Water Mains – 3.8.8 – Hydrants that come off a service connection on private property are considered “private” unless approved by the HRWC. Paint private hydrants “safety yellow”.

- ✓ Check to ensure that the private hydrant is clearly identified, clear of obstructions, painted yellow, and readily accessible for use by firefighters.

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2.4 FD Connection: accessible/capped/swivels work

Code Reference and Summary - NFC 2.5.1.4.(1), NFC 6.4.1.1.(1)

Access to fire department connections for sprinkler or standpipe systems by firefighters and their equipment shall be maintained free of obstructions at all times.

- ✓ Locate the fire department connection for the building.
- ✓ Assess surroundings - are there shrubs, vehicles, fuel supply tanks etc. blocking the connection?
- ✓ Instruct owner or owner’s agent to remove obstructions and/or post proper extra signage to identify and to increase the fire department connection visibility and accessibility.
- ✓ Check to ensure the connection's protective caps are in place, swivels work, and that no objects have been jammed inside.

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2.5 Fuel Cylinders/Tanks in safe condition (Visual)

Code Reference and Summary - NFC 2.6.1.1., 3.1.1.4., B-139 6.3.2,6.5.4., B-149.1 9.1.2., B-149.2 7., 6.16.(13) (14), CSA Z662 12.4.15.4.

Heating, ventilating and air-conditioning appliances and equipment shall be installed in conformance with the NBC. Cylinders/tanks shall be installed in accordance with the manufacturer’s instructions and the Standard to which the tank was manufactured.

Cylinders/tanks shall be accessible after installation so that they can be inspected.

The cylinder/tank foundation shall be non-combustible and shall be designed to prevent uneven settlement of the cylinder/tank and to prevent overturning or uplifting of the cylinder/tank. A cylinder/tank shall be securely supported to prevent settling, sliding, toppling, or lifting.

Cylinder/tanks shall be protected from physical damage incident to outdoor use. Snow, ice, or rain falling from a roof can damage cylinders/tanks and their connections.

Piping or tubing entering a building above grade in locations that do not afford protection from damage from vehicles on any street, highway, avenue, alley, or a parking lot, the piping or tubing shall be protected by posts or guardrails in compliance with Clause 6.16.14 unless otherwise approved by the authority having jurisdiction.

The piping or tubing entering a building shall be protected from vehicular damage by one of the following means:



(a) Posts shall

(i) be not less than 12 in (300 mm) from the riser, regulator, or equipment;

(ii) be spaced not more than 42 in (1050 mm) apart;

(iii) be buried not less than 36 in (900 mm) below grade;

(iv) extend at least 30 in (750 mm) above grade; and

(v) be one of the following:

(1) 4 in (100 mm) capped steel pipe;

(2) 4 in (100 mm) tubing filled with concrete;

(3) 8 in (200 mm) pressure-treated wood, either square or round; or

(4) 6 in (150 mm) minimum dimension reinforced concrete.

(b) Guardrails shall be

(i) not less than 12 in (300 mm) from the riser, regulator, or equipment;

(ii) of the steel deep beam type, 12 in (300 mm);

(iii) supported by 6 in (150 mm) minimum pressure-treated wooden posts located not more than 42 in (1050 mm) apart, centre to centre; and

(iv) located so that the top of the beam is not less than 24 in (600 mm) nor more than 30 in (750 mm) above grade.

Where located outside buildings, meters and regulators shall be installed in readily accessible locations.

Where outside meters and regulators are installed in locations that do not afford reasonable protection from damage, such protection shall be provided.

- ✓ Fuel cylinders/tanks are to be maintained in a safe condition.
- ✓ They should be on non-combustible bases c/w non-combustible supports.
- ✓ Look for signs of leaking, rust, damage or change in position due to deterioration, frost movement or accident.
- ✓ Vehicle protection (ex. bollards or jersey barriers) is required if fuel cylinders/tanks or outside gas meters and regulators are installed in an area which permits vehicular access.

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2.6 Garbage Containers (10' from Building)

Code Reference and Summary - NFC 2.4.1.1.(6)

Outdoor storage receptacles, such as dumpsters used for combustible materials, shall be located so that they do not create an undue fire hazard to surrounding buildings.

- ✓ Unless approved to do so in writing by the Fire Prevention Division, refuse containers, including blue and green bins, should be located at least 10 feet from the building and shall not block an exit or means of egress from a building, or be placed in a position as to block fire department access to a building.
- ✓ Advise owner or owner's agent to contact 311 for assistance from the Fire Prevention Division if property limitations do not allow for the bin(s) to be relocated.

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2.7 Exit / Egress Pathway(s) clear and unobstructed

Code Reference and Summary - NFC 2.7.1.6., 2.7.1.7.(1), 2.7.1.8.

Means of egress shall be maintained in good repair and free of obstructions.

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 through fare, or an exterior open space protected from fire exposure from the building and having access to an open public through fare.

Means of egress includes exits and access to exits.

Exterior passageways and exterior exit stairs serving occupied buildings shall be maintained free of snow and ice accumulations.

Free of Obstruction

Where an exit door leading directly to the outside is subject to being obstructed by parked vehicles or storage because of its location, a visible sign or a physical barrier prohibiting such obstructions shall be installed on the exterior side of the door.

- ✓ There should be nothing blocking the "mean of egress" (includes any part of the access to exit, or exit door).
- ✓ There shall be NO storage in required exits or access to exits.
- ✓ Pathways leading from required exit doors should be maintained free of snow and ice to allow for safe exiting from the building to a separate building, an open public through fare, or an exterior open space protected from fire exposure.
- ✓ Sidewalk patios should never block FD connections.
- ✓ Roof top or sidewalk patios – tables, chairs etc. – should never impede on the required exit width from buildings.
- ✓ If an exit door is subject to being blocked by parked vehicles a sign or physical barrier shall be installed on the exterior side of the door.

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2.8 Outside Exit Landings & Steps in safe condition

Code Reference and Summary - NFC 2.7.1.6., NFC 2.7.1.7.

Means of egress shall be maintained in good repair and free of obstructions.

Exterior passageways and exterior exit stairs serving occupied buildings shall be maintained free of snow and ice accumulations.

- ✓ Outside exit landings and steps shall be maintained in a safe condition and shall be free from excess rot, structurally sound and secured to insure stability.

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3 FIRE DETECTION SYSTEMS

3.1 Fire Alarm System in working order (Visual)

Code Reference and Summary - NFC 6.3.1.1., NFC 6.3.1.2.

Fire alarm and voice communication systems shall be maintained in operable condition at all times.

As per Section 5 of the CAN/ULC-S536, Standard for the Inspection and Testing of Fire Alarm Systems, the following daily inspections shall be conducted to confirm the operability of the fire alarm system:

- *Status of the primary and remote trouble signal indicators;*
- *Status of the primary 'power-on' or equivalent indicator.*

As per Section 33 of the Fire Safety Regulations, where a fire protection system or any part of it is shut down for repairs or is inoperative for more than 2 hours, the owner of the building containing the fire system shall

- *notify the fire department, and*
- *provide a sufficient number of trained people to patrol the building until the fire protection system is restored to operating condition.*

Every owner of a building shall develop procedures to notify occupants of the building if a fire or other emergency occurs when the fire alarm and detection system are shut down or inoperative.

As per Section 6.3 of F-100, no fire alarm system shall be silenced or reset without authorization from the Fire Chief. Further, the Fire Chief and building occupants shall be notified by the owner when a fire alarm system is out of service or malfunctions, altered, repaired or additions are made, or placed back in service.

- ✓ Check the fire alarm panel for the "green power on indicator light". No other lights should be lit. i.e. "trouble" (usually yellow) or "silenced alarm" mode (usually red). You may also come across panels that have a small LED screen which may say "system in working order" or some other wording to indicate that the system is not in "trouble" mode or "silenced alarm mode".
- ✓ Check the indicator lights on detectors in the halls/stairwells etc.
- ✓ Check that text on the panel indicator labels is clear and legible.
- ✓ Where alarm panels or detectors are found in "trouble" mode, "N" on the FSMI form shall be checked. The owner or owner's agent shall be instructed to have the alarm system inspected by a qualified company and repaired as soon as possible.
- ✓ Where the alarm panel is found in "silenced alarm" mode, or otherwise "out of service", the owner or owner's agent shall be instructed to have the alarm system inspected by a qualified company as soon as possible. The call to their "alarm" company requesting immediate assistance should be made while you are there.
- ✓ If the fire alarm system cannot be put back in service within two (2) hours, a fire watch shall be put in place.

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3.2 Monitoring Co. information on panel (If FA is monitored)

Code Reference and Summary - NFC 6.3.1.3.(1), CAN/ULC-S561-03, 9.2.2.

Where a building fire alarm system is monitored, CAN/ULC-S561-03 requires that the company name and phone number of the fire signal receiving center company and a clear statement that the equipment is being monitored



and that notification must be given prior to working on or testing of the fire alarm system be prominently displayed on the signal transmitting unit, the fire alarm control unit and/or the extinguishing system equipment. At no time shall there be conflicting or inaccurate information displayed.

Further, alarm signals received by the fire signal receiving center from the fire alarm control unit ... shall be treated as fire alarms and the fire signal receiving center shall contact the appropriate public fire service communication center within a maximum of 30 s of the receipt of the signal. Unless authorized in writing by the authority having jurisdiction there shall be no premises verification of the fire alarm signal.

- ❗ **APPLICABILITY:** Monitoring company information affixed to the fire alarm panel is required if the system is monitored.
- ✓ If the fire alarm system is monitored the name and phone number of the company that is monitoring the system should be clearly affixed to the fire alarm panel.
- ✓ If the system is not monitored a sign (see 3.4 below) requesting that the fire department be notified and including the telephone number of the department should be posted at each pull station.
- ✓ If a fire alarm system is monitored, this is a good opportunity to remind building owners or owner's agents that codes require that, if an alarm is activated, the monitoring company is required to dispatch the fire department first as opposed to calling the owner or owner's agent first and allowing them to decide whether or not to dispatch fire.

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3.3 Pull Stations visible & accessible

Code Reference and Summary - NFC 2.1.3.1.(1), NBC, CAN/ULC-S524-04 5.2.2., 6.3.1.2.(2)

Manual stations shall be installed so as to be visible at all times.

Fire alarm and detection system components shall be accessible for purposes of inspection or maintenance.

- ✓ Check to ensure that all pull stations are visible and accessible to all occupants. They should not be blocked by plants, furniture etc.
- ✓ Pull stations should be maintained to function as designed. Missing or damaged glass tubes should be replaced.
- ✓ If walls on which pull stations are mounted are painted a color which makes it difficult to locate the pull station (such as red, brown or another dark color), the owner or owner's agent should be instructed to paint the area around the pull station white, (or another visibly contrasting color) to provide adequate visibility for the public to easily locate the pull station.

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3.4 Signs above Pull Stations (if not monitored)

Code Reference and Summary - NFC 2.8.2.7. (3), 2.1.4.1.(1)(2), 2.1.4.2.(1)

Where a fire alarm system has been installed with no provision to transmit a signal to the fire department, a sign shall be posted at each manually actuated signaling box requesting that the fire department be notified, and including the telephone number of the department.



Where a sign, notice, placard or information is required to be posted, it shall be clearly legible and permanently mounted in a conspicuous or prominent location in proximity to the situation to which it refers and, shall be maintained as such.

- ❗ **APPLICABILITY:** Signs above pull stations are required if the Fire Alarm system is not monitored.
- ✓ If the fire alarm system is not being monitored by a qualified central station to dispatch the fire department if an alarm is activated, signs shall be posted at ALL manual pull stations.
- ✓ Signs should not be faded and/or difficult to read.
- ✓ Advise owners or owner's agent to contact 311 for signs from the Fire Prevention Division.
- ✓ Pull Station Warning Sign:



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4 FIRE SUPPRESSION SYSTEMS

4.1 Sprinkler System is in working order (Visual)

Code Reference and Summary - NFC 6.4.1.1. (1), NFPA 25 4.1.1.

The responsibility for properly maintaining a water-based fire protection system shall be that of the owner of the property.

- ✓ While in the sprinkler room, check to ensure that the main valve is in the OPEN position and that system gauges are showing adequate pressure (visual).

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4.2 Spare Sprinkler Heads <300=6, 300-1000=12, >1000=24

Code Reference and Summary - NFC 6.4.1.1. (1), NFPA 13 6.2.9.7., 6.2.9.7.1, NFPA 25 5.4.1.4.(1)(2), 5.4.1.5.

NFPA 25 states that a supply of at least six spare sprinklers (never fewer than six) shall be maintained on the premises so that any sprinklers that have operated or been damaged in any way can be promptly replaced.

The sprinklers shall correspond to the types and temperature ratings of the sprinklers in the property and shall be kept in a cabinet located where the temperature to which they are subjected will at no time exceed 100°F (38°C).

The stock of spare sprinklers shall include all types and ratings installed and shall be as follows:

- For protected facilities having under 300 sprinklers — no fewer than six sprinklers.
- For protected facilities having 300 to 1000 sprinklers — no fewer than 12 sprinklers.
- For protected facilities having over 1000 sprinklers — no fewer than 24 sprinklers.

The supply of spare sprinklers shall be inspected annually for the following:

- (1) The proper number and type of sprinklers
- (2) A sprinkler wrench for each type of sprinkler

NFPA 13 states that a list of the sprinklers installed in the property shall be posted in the sprinkler cabinet. The list shall include the following:

- (1) Sprinkler Identification Number (SIN) if equipped; or the manufacturer, model, orifice, deflector type, thermal sensitivity, and pressure rating
- (2) General description
- (3) Quantity of each type to be contained in the cabinet
- (4) Issue or revision date of the list

- ✓ Check inside the spare sprinkler cabinet to ensure that an adequate number and type of spare sprinkler heads are available and accessible.
- ✓ Most buildings will require 12 spare sprinkler heads.

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4.3 Sprinkler Wrench in cabinet

Code Reference and Summary - NFC 6.4.1.1. (1), NFPA 25 5.4.1.6.



NFPA 25 states that a special sprinkler wrench shall be provided and kept in the cabinet to be used in the removal and installation of sprinklers.

One sprinkler wrench shall be provided for each type of sprinkler installed.

- ✓ Check inside the spare sprinkler cabinet to ensure that an adequate number and type of sprinkler wrenches are available and accessible.

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4.4 Standpipe/Hose System maintained (Visual)

Code Reference and Summary - NFC 6.4.1.1. (1), NFPA 25 6.4.1.

NFPA 25 states that Standpipe and Hose System equipment that does not pass the inspection or testing requirements shall be repaired and tested again or replaced.

- ✓ Check to ensure that hose, hose cabinets, nozzles etc. appear to be properly maintained.
- ✓ You may come across a building where the hose has been removed from the cabinet. This is only acceptable if the owner or owner's agent has and can produce written permission from the Fire Prevention Division authorizing them to do so.

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4.5 Fire Extinguishers inspected annually (Check Tag)

Code Reference and Summary - NFC 6.2.1.1.(1), NFPA 10-2007, 7.1.2., 7.2.2., 7.3.1.1.(1)

Portable extinguishers shall be inspected, tested and maintained in conformance with NFPA 10, "Portable Fire Extinguishers."

Maintenance Frequency - All Fire Extinguishers (Annual Check)

Persons performing maintenance and recharging of extinguishers shall be certified.

Fire extinguishers shall be subjected to maintenance at intervals of not more than 1 year, at the time of hydrostatic test, or when specifically indicated by an inspection or electronic notification.

Each fire extinguisher shall have a tag or label attached that indicates the month and year recharging was performed, identifies the person performing the service, and identifies the name of the agency performing the work.

Verification-of-Service Collar (Maintenance or Recharging)

Each extinguisher that has undergone maintenance that includes internal examination or that has been recharged shall have a verification-of-service collar located around the neck of the container.

The collar shall contain a single circular piece of uninterrupted material forming a hole of a size that does not permit the collar assembly to move over the neck of the container unless the valve is completely removed.

The collar shall not interfere with the operation of the fire extinguisher.

The collar shall include the following information:

- *Month and year the service was performed, indicated by a perforation such as is done by a hand punch*
- *Name of the agency performing the maintenance or recharge*

Portable fire extinguishers shall be maintained in a fully charged and operable condition and shall be kept in their designated places at all times when they are not being used.



- ✓ Check extinguishers to see if they have had their required annual "maintenance inspection" within the last year. There must be a current annual inspection tag from a qualified company attached to the extinguisher.
- ✓ If the owner or owner's agent stated (FSMI Checklist line item 1.14) that the record of the monthly portable fire extinguisher check was being kept on the back of the annual inspection tag check the tag for same.
- ✓ The owner or owner's agent monthly check should include the following:
 - Located in designated place
 - No obstruction to access or visibility
 - Pressure gauge reading or indicator in the operable range or position
 - Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers
 - Indicator for non-rechargeable extinguishers using push-to-test pressure indicators
 - Verifying that operating instructions on nameplates are legible and face outward
 - Checking for broken or missing safety seals and tamper indicators
 - Examination for obvious physical damage, corrosion, leakage, or clogged nozzle

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4.6 Fire Extinguishers Wall mounted and accessible

Code Reference and Summary - NFC 2.1.5.1.(2), NFPA 10-2007, 6.1.3.

Portable extinguishers in proximity to a fire hazard shall be located so as to be accessible without exposing the operator to undue risk.

Portable extinguishers that are subject to corrosion shall not be installed in a corrosive environment unless they are provided with appropriate corrosion protection.

Fire extinguishers shall be conspicuously located where they are readily accessible and immediately available in the event of fire.

Fire extinguishers shall be located along normal paths of travel, including exits from areas.

Fire extinguishers shall not be obstructed or obscured from view.

In large rooms and in certain locations where visual obstructions cannot be completely avoided, means shall be provided to indicate the extinguisher location.

Portable fire extinguishers other than wheeled extinguishers shall be installed using any of the following means:

- *Securely on a hanger intended for the extinguisher*
 - *In the bracket supplied by the extinguisher manufacturer*
 - *In a listed bracket approved for such purpose*
 - *In cabinets or wall recesses*
- ✓ Extinguishers should be visible & wall mounted (or in a proper cabinet) in a safe, accessible location.
 - ✓ Check to ensure that portable fire extinguishers are visible and accessible to the occupants. They should not be blocked by plants, furniture etc.

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5 FIRE SEPARATIONS

5.1 Doors in closed position

Code Reference and Summary - NFC 2.2.2.4.(4)

Where Closures are damaged so as to affect the integrity of their Fire-Protection Rating, they shall be repaired so that their integrity is maintained.

- *Closure means a device or assembly for closing an opening through a Fire Separation or an exterior wall, such as a door, a shutter, wired glass or glass block, and includes all components such as hardware, closing devices, frames and anchors.*
- *Fire-Protection Rating means the time in minutes or hours that a Closure will withstand the passage of flame when exposed to fire under specified conditions of test and performance criteria, or as otherwise prescribed in the NBC.*
- *Fire Separation means a construction assembly that acts as a barrier against the spread of fire.*

Closures in Fire Separations shall not be obstructed, blocked, wedged open, or altered in any way that would prevent the intended operation of the Closure.

- ✓ Doors that separate one occupancy from another, a shared egress or exit route from a suite (including service rooms), or, a room within a suite that is required to be separated from the remainder of the suite by a fire separation shall be kept closed.
- ✓ Self-closing devices and/or fire rated glass are good indicators that the door forms part of a fire separation.
- ✓ Check to make sure there is nothing interfering with the doors designed operation. No wedges or unapproved hold-open devices.

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5.2 Door self-closing/latching devices working

Code Reference and Summary - NFC 2.2.2.4.(1)(c)

Defects that interfere with the operation of Closures in Fire Separations shall be corrected, and such Closures shall be maintained to ensure that they are operable at all times by:

- *keeping fusible links and other heat-actuated devices undamaged and free of paint and dirt,*
- *keeping guides, bearings and stay rolls clean and lubricated,*
- *making necessary adjustments and repairs to door hardware and accessories to ensure proper closing and latching,*
- *repairing or replacing inoperative parts of hold-open devices and automatic releasing devices.*

- ✓ Check door closing and door latching devices by opening the door and letting it close on its own. Check to be sure the door closes all the way and that the latch catches as designed. You should not be able to push the door open without using the door knob or other latch disengaging device.

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5.3 Walls/Ceilings free from holes and openings

Code Reference and Summary - NFC 2.2.1.2.(1)

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

- ✓ Visually check for holes/openings in walls, ceilings or doors (if the hole does not look like it was there in the original design, it should be repaired).
- ✓ Check for damage or holes which may not have been properly repaired following work being carried out in the building.
- ✓ Holes in walls, openings around pipes (sprinkler, plumbing, wires etc.) shall be filled (fire stopped) with a certified product installed as per the manufacturer's instructions.
- ✓ Ask owner or owner's agent to provide proof of product used.

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6 EXITS

6.1 Exit doors operable and accessible

Code Reference and Summary - NFC 2.7.1.6.(1), 2.7.2.1.(1)

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 through fare, or an exterior open space protected from fire exposure from the building and having access to an open public through fare.

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 through fare, or an exterior open space protected from fire exposure from the building and having access to an open public through fare. Means of egress includes exits and access to exits.

Access to Exits means that part of a means of egress within a floor area that provides access to an exit serving the floor area.

Means of egress shall be maintained in good repair and free of obstructions.

- ✓ Required exit hallways and doors leading from the building shall be clear and in working condition at all times. There should be nothing blocking the access to the exit, or exit door.
- ✓ Check doors to make sure they open easily. There should be no chains/locks, bars etc.

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6.2 Exits and Hallways are illuminated (Adequately)

Code Reference and Summary - NFC 2.7.3.1.(2)

Every exit, public corridor or corridor providing access to exit for the public shall be equipped to provide illumination to an average level of not less than 50 lx at floor or tread level and at all points such as angles and intersections at changes of level where there are stairs or ramps.

Public Corridor means a corridor that provides access to exit from more than one suite.

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 through fare, or an exterior open space protected from fire exposure from the building and having access to an open public through fare.

Exits shall be illuminated during times when the building is occupied.

- ✓ Check to ensure that there is adequate lighting provided in exit hallways and stairways. You should be able to easily see your feet at floor level and/or on stair treads.

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6.3 Exit Signs are illuminated

Code Reference and Summary -2.7.3.1.(2), A6.5.1.8.,NBC 3.4.5.

Exit Signs

- 1) *Every exit door shall have an exit sign placed over or adjacent to it if the exit serves*



- a) a building more than 2 storeys in building height,
- b) a building having an occupant load more than 150, or
- c) a room or floor area that has a fire escape as part of a required means of egress.

Exit signs shall be illuminated during times when the building is occupied.

Internally illuminated exit signs shall be continuously illuminated and

- (a) where illumination of the sign is powered by an electrical circuit, be constructed in conformance with CSA C22.2 No. 141, "Emergency Lighting Equipment," or*
- (b) where illumination of the sign is not powered by an electrical circuit, be constructed in conformance with CAN/ULC-S572, "Photoluminescent and Self-Luminous Signs and Path Marking Systems."*

Externally illuminated exit signs shall be continuously illuminated and be constructed in conformance with CAN/ULC-S572, "Photoluminescent and Self-Luminous Signs and Path Marking Systems."

CSA C22.2 No.141 Definitions:

Exit sign - A device used in buildings to identify the most direct path of egress for emergency purposes. It contains a legend and optional directional indicator(s). The exit sign is considered to be internally illuminated if the legend and optional directional indicator or background, or both, are illuminated by a light source contained within the assembly supporting the legend and optional directional indicator.

Type 1 exit sign - an internally lighted exit sign that is permanently connected to a single source of power (usually ac).

Type 2 exit sign - an internally lighted exit sign that is permanently connected to a normal source of power (usually ac) and a separate external source of power (usually dc) that is activated upon failure of the normal power supply.

Type 3 exit sign - an internally lighted exit sign that is permanently connected to a single external source of power (usually ac) and an internal dc power supply. The internal power supply may consist of an automatic load-control device, storage battery, and means for charging the battery.

Legend - the word or words required to be contained on an exit sign, including "EXIT" or "SORTIE", or both.

CAN/ULC-S572 Definitions:

Exit Sign(s) - A general term used to refer to an exit light, exit fixture, self-luminous exit sign or photoluminescent exit sign, depicted as a text or graphical symbol.

Photoluminescent System(s) - Having the property of emitting light that continues for a length of time after excitation by visible or invisible light has been removed.

Self-Luminous - Illuminated by a self-contained energy source other than a battery, such as radioactive tritium gas. Operation is independent of external power supplies or other external forms of energy.

OFM, Ted G. Ross Commentary 09 Sep 2011:

There has been discussion around the meaning of the requirement that externally illuminated exit signs be continuously illuminated. The intent of this requirement was for non-photoluminescent signs which may not be visible unless continuously illuminated. Photoluminescent signs are intended to be continuously illuminated only while the building is occupied and normal power is available. In the event of normal power failure the photoluminescent exit signs do not require an emergency source of illumination.



Photoluminescent signs have been available for over a decade in NS and have been accepted as an alternative to internally illuminated and externally illuminated signs.

Exit signs are to be visible by being unobstructed, illuminated and readily identifiable as indicating the location of the means of egress.

- ✓ Exit signs may be internally or externally illuminated.
- ✓ If there are exit signs in the building check to ensure they are illuminated, visible and indicate the location of the exit.

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6.4 Acceptable Locking Devices

Code Reference and Summary - NFC 2.7.1.1.(1), 1.4.1.2., NBC 3.3.1.13., 3.4.6.16.(3)

Principal entrance doors, exit doors and doors to suites, including exterior doors of dwelling units, and other doors in an access to exit shall

- *be openable from the inside or in traveling to an exit without requiring keys, special devices or specialized knowledge of the door-opening mechanism, or*
- *in the case of exit doors, be controlled by electromagnetic locking mechanisms*

Except for doors serving a single dwelling unit and doors to accessory buildings and to garages serving a single dwelling unit, door release hardware on doors in a means of egress shall be operable with one hand and the door shall be openable with not more than one releasing operation.

Every exit door, except doors serving a single dwelling unit, 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 to the door release hardware.

The permission to have additional door releasing devices is intended to allow the use of a security chain, night latch or dead bolt to supplement the normal door latching device. These are permitted for dwelling units and locations where guests in a hotel or motel require additional security.

- ✓ The locking device shall be operable with one hand and the door shall be openable with not more than one releasing operation.
- ✓ Check exiting from walk-in coolers/freezers.

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6.5 Exit / Egress Pathway(s) clear and unobstructed

Code Reference and Summary - NFC 2.7.1.6.(1), 1.4.1.2., 3.2.2.2 NBC 3.4.1.9.

Means of egress shall be maintained in good repair and free of obstructions.

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 through fare, or an exterior open space protected from fire exposure from the building and having access to an open public through fare. Means of egress includes exits and access to exits.



Access to Exits means that part of a means of egress within a floor area that provides access to an exit serving the floor area.

No mirror shall be placed in or adjacent to any exit in a manner that would confuse the direction of exit.

- 1) Adequate access for firefighting purposes shall be provided and maintained to all portions of the storage area.*
- 2) Access aisles not less than 1.0 m wide shall be provided to fire department access panels and to fire protection equipment.*
- 3) Aisles shall be maintained free of obstruction.*

- ✓ There should be nothing blocking the "mean of egress" which includes any part of the access to exit or exit door.
- ✓ Aisles shall be maintained free of obstruction.

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6.6 Emergency Lights working (Random Check)

*Code Reference and Summary - NFC 6.5.1.1.(1), 6.5.1.6.(2)a., 2.1.3.7.(2),
Emergency lighting shall be maintained in operating condition.*

- ✓ Check to ensure bulbs are not burned out and that the lighting units function as designed.
- ✓ Self-contained units can be checked by either unplugging them or using the test button to see if they are working correctly.
- ✓ When bulbs come on, check to ensure that they are directed in the most effective way to light access to exits during a disruption of power. Bulbs should be directed at the floor area to light access to exits, not directed at tables, walls etc.

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6.7 Emergency Procedures posted

Code Reference and Summary - NFC 2.8.2.7.

Posting of Fire Emergency Procedures

- 1) At least one copy of the fire emergency procedures shall be prominently posted on each floor area.*
- 2) In every hotel and motel bedroom, the fire safety rules for occupants shall be posted showing the locations of exits and the paths of travel to exits*

- ① **APPLICABILITY:** Posted fire emergency procedures are required for all buildings that require a Fire Safety Plan (requirements in Section 1.1)
- ✓ Buildings required to have a Fire Alarm are required to post their evacuation procedures on each floor in a prominent location – often at each exit stair entrance and at elevators.
- ✓ If the evacuation procedures include a floor plan it must be properly oriented to the building.
- ✓ In some smaller occupancies HRFE emergency procedure stickers may be acceptable. Advise owner or owner's agent to contact 311 for stickers from the Fire Prevention Division.

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6.8 Floor Numbering in Exit Stairwells

Code Reference and Summary – NFC 2.7.1.1(1), NBC 3.4.6.19, NBC 9.9.11.5(1)

Means of egress shall be provided in buildings in conformance with the NBC.

1) Arabic numerals indicating the assigned floor number shall

- a) 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 1 500 mm from the finished floor and not more than 300 mm from the door, and
- d) be contrasting in colour with the surface to which they are applied (see Note A-3.4.6.19.(1)(d)).

- ✓ Check to ensure each floor in an exit stair shaft has a sign indicating the floor numbers that:
 - is on the latch side of the door.
 - is 60 mm (2.4") high and raised.
 - is 1500 mm (59") from the floor and within 300 mm (12") from door.
 - has contrasting colour.

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7 STORAGE

7.1 In a neat and orderly fashion

Code Reference and Summary - NFC 2.4.1.1 (1)

Combustible waste materials in and around buildings shall not be permitted to accumulate in quantities or locations that will constitute an undue fire hazard.

- ✓ Storage should be neat and orderly and not blocking any important access routes such as those leading to fire alarm panels, service rooms, exits, important documents (Hazardous Materials, Fire Safety Plan etc.)
- ✓ The accumulation of a certain amount of combustible waste material in and around buildings may be necessary for the day-to-day operation. If basic measures of good housekeeping are observed, the presence of these combustibles may not constitute an "undue fire hazard."

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7.2 18" below sprinkler heads

Code Reference and Summary - NFC 3.2.2.3.(4), NFC 6.4.1.1 (1)

In sprinklered buildings, the clearance between the top of storage and ceiling sprinkler deflectors shall conform to the standard used to design the sprinkler system.

Objects against walls are permitted to ignore the minimum spacing rules as long as the sprinkler is not directly above the object.

The 18" does not apply to storage against the wall as long as the sprinkler head is NOT directly above the storage. It is important to remember that this storage height threshold requirement is based considering the storage as an obstruction to the spray pattern of the sprinkler. In other words, the 18 inch clearance is intended to ensure that the sprinkler spray pattern can develop and distribute water on the floor throughout its coverage area, including on the other side of the obstruction. In the case of storage against a wall there is no obstruction because the sprinkler is not intended to protect floor area on the other side of the storage.

- ✓ The requirement is to keep storage at least 18" below the deflector of the sprinkler head. This does not apply to storage against the wall if the sprinkler head is not directly above the storage.
- ✓ Look across the top of storage to ensure there are no obstructions above/around the sprinkler heads which may prevent proper functioning.

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7.3 39" below ceiling if non-sprinklered

Code Reference and Summary - NFC 3.2.1.1.(1)(a.), A 3.2.1.1.(1)(a.), NFC 3.2.2.3.(2), A 3.2.2.3.(2)

In un-sprinklered buildings, 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.

In un-sprinklered buildings, a clear space is required above the storage to permit hose streams to be directed onto the top of the storage.



- ✓ The requirement is to keep storage at least 39" from the storage to the ceiling to provide a clear space above the storage to permit hose streams to be directed onto the top of storage. This does not apply to storage against the wall.
- ✓ Look across the top of storage to ensure there are no obstructions closer than the required 39".

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7.4 3' from electrical panels not located in an electrical room

Code Reference and Summary - NFC 2.4.7.1 (1), CSA C22.1.09 2-308, 2-312.

Electrical installations shall be used and maintained so as not to constitute an undue fire hazard.

Electrical Code:

Working Space Around Electrical Equipment:

A minimum working space of 1 m with secure footing shall be provided and maintained about electrical equipment such as switchboards, panel boards, control panels, and motor control centres that are enclosed in metal, except that working space is not required behind such equipment where there are no renewable parts such as fuses or switches on the back and where all connections are accessible from locations other than the back.

The space shall be in addition to the space required for the operation of draw-out-type equipment in either the connected, test, or fully disconnected position and shall be sufficient for the opening of enclosure doors and hinged panels to at least 90 degrees.

Accessibility for Maintenance:

Passageways and working space around electrical equipment shall not be used for storage and shall be kept clear of obstruction and arranged to give authorized persons ready access to all parts requiring attention.

- ✓ No storage of any kind shall be within 3' of an electrical panel.

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7.5 Service Rooms free from storage

Code Reference and Summary - NFC 2.4.1.1.(2), A-2.1.4.1.1.(2)

Combustible materials, other than those for which the location, room or space is designed, shall not be permitted to accumulate in any part of an elevator shaft, ventilation shaft, means of egress, service room or service space.

The defined term "service rooms" includes boiler rooms, furnace rooms, incinerator rooms, garbage rooms, janitors' closets and rooms to accommodate air-conditioning or heating appliances, pumps, compressors and electrical services.

The intent is to discourage the use of these rooms for the storage of miscellaneous combustible materials. If storage space is needed in a building, a room that does not contain building service equipment should be provided.

Even in garbage rooms, combustible materials should not be allowed to accumulate. When the garbage is periodically cleared from the room, the room should be empty, except for the garbage container itself.

- ✓ Service rooms must be kept tidy and free of combustible storage.

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7.6 Propane Tanks properly stored

Code Reference and Summary - NFC 3.1.1.4 (2)(b) → CAN/CSA-B149.2-05 6.5.

The storage and handling of liquefied petroleum gases shall conform to:

- (a) CAN/CSA-B149.1, "Natural Gas and Propane Installation Code," and*
- (b) CAN/CSA-B149.2, "Propane Storage and Handling Code."*

Except as permitted in this Code, a cylinder that contains propane liquid or vapour shall not be stored or used inside any structure. Exceptions include: cleaning and polishing equipment, construction sites, portable food-serving carts and welding, cutting, and preheating processes. Note that there are many specific restrictions for these uses.

Not more than 3 cylinders manufactured to TC Specification 39, 2P and 2Q and known as "single-trip" or "non-refillable" cylinders shall be stored in a dwelling unit.

Cylinders manufactured to TC-DOT Specifications 39 and 2P, known as "single-trip" or "non-refillable" cylinders, having a maximum water capacity of 2.7 lb (1.2 kg) and filled with no more than 16.8 oz (0.48 kg) of propane, shall be permitted for use indoors to supply propane to food service appliances.

Cylinders shall be directly connected to the food service appliance without the use of hose, and no more than 2 cylinders per appliance shall be connected for use at one time.

Storage in restaurants and non-residential food service locations of cylinders manufactured to TC-DOT Specifications 39 and 2P, known as "single-trip" or "non-refillable" cylinders, having a maximum water capacity of 2.7 lb (1.2 kg) and filled with no more than 16.8 oz (0.48 kg) of propane, shall be limited to 10 cylinders. Additional TC-DOT Specifications 39 and 2P cylinders, up to an equivalent of 250 L (approximately 638 cylinders), may be stored inside the restaurant or non-residential food service location, if stored inside an approved ULC-C1275 or UL-1275 cabinet.

- ✓ No more than three (3) 1 lb, "single trip" or "non-refillable" propane cylinders can be stored inside a dwelling unit. It is recommended that, where possible, even these types of propane cylinders not be stored inside buildings.
- ✓ If you come across propane cylinder storage inside a building that exceeds the allowable amounts, instruct the owner or owner's agent to remove the cylinder(s) from the building immediately and while you are there.
- ✓ Be sure to explain the seriousness of the hazard.
- ✓ Only propane powered machinery designed and approved for use inside buildings shall be used inside buildings.
- ✓ Tank valves must remain closed when the machines are not operating.
- ✓ Extra tanks shall be stored outside in a safe, protected area away from exits (3'), openings (5'), and/or mechanical air intakes (10').

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7.7 Flammable/combustible liquids properly stored

Code Reference and Summary - NFC 4.2.2, 4.2.3, 4.2.4, 1.4.1.2.

Flammable liquids or combustible liquids shall not be stored in or adjacent to exits, elevators or principal routes that provide access to exits.



Flammable liquids and combustible liquids shall not be stored on exterior balconies.

Smoking shall not be permitted in areas where flammable liquids and combustible liquids are stored.

Areas where flammable liquids and combustible liquids are stored shall be kept clean and free of ground vegetation and accumulations of combustible materials not essential to operations.

Flammable liquids and combustible liquids shall not be stored in areas where they may be subject to temperature extremes or atmospheric pressure that could cause their containers to become deformed or rupture, or physical impact or temperature extremes that could cause a chemical reaction or chemical instability such that a fire could occur.

Containers and portable tanks for flammable liquids or combustible liquids shall be built in conformance with CSA B376-M, "Portable Containers for Gasoline and Other Petroleum Fuels," and CSA B306-M, ULC/ORD-C30, "Safety Containers,"

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

- *the material in the container is flammable*
- *it should be kept away from heat, sparks and open flames*
- *it should be kept closed when not in use*

This Subsection shall apply to the storage and handling of flammable liquids and combustible liquids in buildings classified as assembly or residential occupancies

The maximum quantity of flammable liquids or combustible liquids stored in a fire compartment with a fire-resistance rating of at least 1 h shall be:

- *When a single class of flammable liquid or combustible liquid is stored in a fire compartment with a fire-resistance rating of at least 1 h, the total quantity of liquid shall not exceed*
 - *30 L of Class I liquids,*
 - *150 L of Class II liquids, or*
 - *600 L of Class IIIA liquids.*
- *When 2 or more classes of flammable liquid or combustible liquid are stored in the same building, the total quantity permitted for each class of liquid shall be calculated as follows:*
 - $qI/30 + qII/150 + qIIIA/600 < 1$
 - *Where*
 - *qI= the actual quantity of Class I liquids present,*
 - *qII= the actual quantity of Class II liquids present,*
 - *qIIIA= the actual quantity of Class IIIA liquids present.*

Fire compartment means an enclosed space in a building that is separated from all other parts of the building by enclosing construction providing a fire separation having a required fire-resistance rating.

Quantities of flammable liquids or combustible liquids exceeding those permitted above are permitted, provided they are kept

- *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*
- *in a storage room conforming to Subsection 4.2.9. and having no openings that communicate directly with the public portions of the building.*

And, shall not be located above or below the first storey.



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.

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.

Access for Firefighting – Required aisles and other access paths shall be maintained to permit the unobstructed movement of personnel and fire department apparatus so that firefighting operations can be carried out in any part of an area used for storage, use or handling of flammable liquids or combustibles liquids.

- ✓ Flammable and combustible liquids shall be stored in proper containers and/or cabinets and be stored in a fire compartment with a fire-resistance rating of at least one (1) hour.
- ✓ Flammable and/or combustible liquids are never to be stored in electrical rooms, furnace rooms or parking garages.
- ✓ Quantities must never exceed the allowable amounts (as listed above) and, whenever possible, be kept to the minimum amount required for the purpose of "subsidiary use" to building functions. i.e. fuel for snow blower, lawn mower etc.
- ✓ Flammable or combustible liquids shall not be stored on exterior balconies or in or adjacent to exits, elevators or principal routes that provide access to exits.
- ✓ Smoking shall not be permitted in areas where flammable liquids and combustible liquids are stored.
- ✓ Areas where flammable liquids and combustible liquids are stored shall be kept clean and free of ground vegetation and accumulations of combustible materials not essential to operations.
- ✓ Access for firefighting shall be provided.
- ✓ Storage of flammable and combustible liquids within a dwelling unit (apartment or condominium) is restricted to a maximum of 30 L, of which not more than 10 L can be a Class I flammable liquid (gasoline, rubbing alcohol, turpentine). (This does not apply to appliances and their ancillary equipment such as oil tanks for fuel burning appliances).
- ✓ Below are some examples of flammable and combustible liquids which may be found in buildings (within the scope of this program).

Flammable Liquids:

- Flammable liquids are classified as Class I Liquids and are described as any liquid that has a flash point below 100F (37.8 C). Class I liquids are further classified as follows:
 - Class IA Liquids - liquids that have flash points below 73 F (22.8 C) and boiling points below 100 F (37.8 C)
 - Class IB Liquids - liquids that have flash points below 73 F (22.8 C) and boiling points at or above 100 F (37.8 C)
 - Gasoline, rubbing alcohol
 - Class IC Liquids - those liquids that have flash points at or above 73 F (22.8 C) but below 100 F (37.8 C)
 - Turpentine



Combustible Liquids:

- Combustible liquids are classified as Class II or III Liquids and are described as any liquid that has a flash point at or above 100 F (37.8 C). Combustible liquids are classified as Class II or Class III as follows:
 - Class II Liquid - any liquid that has a flash point at or above 100 F (37.8 C) and below 140 F (60 C)
 - Diesel, furnace fuel, kerosene, motor oil, varsol, mineral spirits
 - Class IIIA - any liquid that has a flash point at or above 140 F (60 C), but below 200 F (93 C)
 - Linseed oil, mineral oil, oil based paints
 - Class IIIB - any liquid that has a flash point at or above 200 F (93 C)
 - Anti-freeze, bio-diesel, vegetable oil

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7.8 Compressed Gas Cylinders/Tanks properly stored

Code Reference and Summary - NFC 3.1.2.5.

Compressed Gases

Cylinders and tanks of dangerous goods classified as compressed gases shall be protected against mechanical damage.

Cylinders of dangerous goods classified as compressed gases that are in storage shall be

- a. protected against valve damage*
- b. firmly secured in a position that will not interfere with the operation of the cylinder valve assembly.*

Except for portable fire extinguishers, cylinders of dangerous goods classified as compressed gases shall not be stored

- a. in any exit or corridor providing access to exits,*
- b. under any fire escape, outside exit stair, passage or ramp, or*
- c. within 1 m of any exit.*

- ✓ Check that CO₂ (cylinders often used for pop, draft beer etc.) and other compressed gas cylinders are securely fastened and stored upright and away from heat sources and/or exits (except that portable fire extinguishers may be stored in exits if properly mounted).

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8 BUILDING SERVICES

8.1 Furnace/Chimney in a safe condition (Visual)

Code Reference and Summary - NFC 2.6.1.1.(1), 2.6.1.6.(1), 2.6.1.4., A-2.6.1.4.(3)(a.)

A chimney, flue, or flue pipe shall be replaced or repaired to eliminate:

- *any structural deficiency or decay, and*
- *all abandoned or unused openings that are not effectively sealed in a manner that would prevent the passage of fire or smoke.*

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.

Structural deficiencies are deviations from required construction, such as the absence of a liner or inadequate design of supports or ties. Instances of decay are cracking, settling, crumbling mortar, distortion, advanced corrosion, separation of sections, or loose or broken supports.

Chimneys, flues and flue pipes shall be cleaned as often as necessary to keep them free from dangerous accumulations of combustible deposits.

- ✓ Check heating appliance(s)/chimney(s) for any visual fire safety concerns:
 - Fuel supply tank, shut off valves (each appliance), and fuel lines (protected).
 - Fuel leakage.
 - Condition of appliances, electrical connections (no bare terminations).
 - Room condition (sooty - possibly inadequate ventilation to appliances, possible CO leakage).
 - Flue pipe (corrosion holes, missing any of the three required sheet metal screws in each section joint).
 - If applicable, check fire box area for corrosion or cracks.
 - Mortar - cracked/missing, ensure tight fit where flue pipe enters the chimney.
 - Chimney clean out door in place, in working order.
 - Open clean out door to ensure the chimney is clean and is not clogged.
 - If you have a mirror you may wish to view up the chimney, looking for blockages or material build-ups within the chimney flue liner.
- ✓ If you have concerns regarding the safe condition of the furnace and/or chimney, instruct the owner or owner's agent to have a qualified person inspect the furnace and/or chimney and to have any necessary repairs done to ensure that the furnace and/or chimney functions as designed and with no undue fire hazards.

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8.2 Electrical in a safe condition (Visual)

Code Reference and Summary - NFC 2.4.7.1.(1)

Electrical installations shall be used and maintained so as not to constitute an undue fire hazard.



- ✓ View exposed (visible) wiring to ensure that there are no bare wires exposed or unused wire ends that have not been properly terminated (wire connector).
- ✓ View appliances to check for frayed wire, broken connectors, unsafe conditions, etc.
- ✓ Check to ensure there are no excessive accumulations of water around or under electrical wires or panels.
- ✓ Electrical circuits should not be overloaded.
- ✓ Fuses or breakers should be of proper type and size.
- ✓ Warm or hot outlets or switches may indicate that an unusual condition exists and that an electrician should check the wiring as soon as possible.

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8.3 Extension cords properly used (temporary use only)

Code Reference and Summary - NFC 2.4.7.1.(1), CSA C22.1.09 4-010.,

Electrical installations shall be used and maintained so as not to constitute an undue fire hazard.

- ✓ Extension cords are "temporary" power supply lines. They are not designed to replace required hard wired installations.
- ✓ Extension cords shall not be used to support communication equipment installations (internet, phone, etc). The minimum acceptable solution is to either install an adequate number of proper receptacles (plugs) to meet the equipment needs or, to provide an adequate number of power bars that include over current protection and are connected to proper receptacles (not chained to other power bars).
- ✓ Extension cords shall not be:
 - Permanently installed to provide power to an appliance (fridges, photocopiers, etc).
 - Altered to extend an appliance's power supply.
 - Placed under rugs or carpeting.
 - Taped to secure the cord to combustible surfaces or floor areas.
 - Run across floor areas used as a means of egress or walkway without proper cord protection.
 - Run as to interfere with doors designed as part of a means of egress.
 - Passed through wall, ceilings, doors etc.
 - "Frayed", "deteriorated," or "damaged".
- ✓ If extension cords are required to be used temporarily:
 - Look for a certification mark on all electrical cords such as that of CSA Group. This shows that the cord has been tested and certified to the applicable standard for safety and performance.
 - Check appliance and extension cords to see if they are worn or damaged. Look for worn insulation and splices on the cord, and loose or exposed parts on the plug.
 - Make sure the extension cord is heavy enough for the intended load. For any device that draws more than 7 amps, use a heavy-duty cord.
 - Extension cords or plugs should not become hot when plugged in - it may be overloaded and should be replaced with a new and/or heavier cord.
 - Extension cords should not be connected together and should be replaced with a single cord that is long enough to reach from the appliance to the outlet without stretching.
 - Only cords that are clearly marked for outdoor use should be used outdoors.



- Always unplug an extension cord when it is not in use, never unplug by pulling on the cord.

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8.4 Electrical Components secure (Visual)

Code Reference and Summary - NFC 2.4.7.1.(1), CSA C22.1.09

Electrical installations shall be used and maintained so as not to constitute an undue fire hazard.

- ✓ All hardwired electrical components (outlets, light fixtures, boxes and panels) shall be securely attached to surfaces by mechanical fasteners.

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8.5 Electrical Panel, Outlet & Switches have face plates

Code Reference and Summary - NFC 2.4.7.1.(1), CSA C22.1.09

Electrical installations shall be used and maintained so as not to constitute an undue fire hazard.

- ✓ These components are designed and approved with proper covers - "as a unit". All covers shall be in place and secured to these components as designed.

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8.6 Garbage Room (excessive amount or room)

Code Reference and Summary - NFC 2.4.1.1.(1) (2), A-2.4.1.1.(2), 2.4.1.2.,

Combustible waste materials in and around buildings shall not be permitted to accumulate in quantities or locations that will constitute an undue fire hazard.

Combustible materials, other than those for which the location, room or space is designed, shall not be permitted to accumulate in any part of an elevator shaft, ventilation shaft, means of egress, service room or service space.

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.

The defined term "service rooms" includes boiler rooms, furnace rooms, incinerator rooms, garbage rooms, janitors' closets and rooms to accommodate air-conditioning or heating appliances, pumps, compressors and electrical services.

The intent is to discourage the use of these rooms for the storage of miscellaneous combustible materials. If storage space is needed in a building, a room that does not contain building service equipment should be provided. Even in garbage rooms, combustible materials should not be allowed to accumulate. When the garbage is periodically cleared from the room, the room should be empty, except for the garbage container itself.

Where rooms are provided for the storage of combustible waste materials, such rooms shall conform to the NBC.

Except as required by Sentence 3.6.3.3.(9), a room for the storage of combustible refuse shall be separated from the remainder of the building by a fire separation with a fire-resistance rating not less than 1 h, and be sprinklered.

Storage of refuse consisting of combustible materials including waste paper, cardboard and plastic, and non-combustible materials such as glass and metallic containers can be accumulated in these rooms for the purpose of



recycling. This storage is allowed in consideration of a less stringent collection schedule when compared to that of garbage or refuse, which is collected regularly.

A floor drain shall be provided in a garbage room, incinerator room or boiler room serving more than one dwelling unit.

The room or bin into which a refuse chute discharges shall be of sufficient size to contain the refuse between normal intervals of emptying, be impervious to moisture and be equipped with a water connection and floor drain for washing-down purposes.

A room into which a refuse chute discharges shall contain no service equipment that is not related to refuse handling and disposal

Rooms for the temporary storage of combustible refuse in all occupancies or for public storage in residential occupancies shall be separated from the remainder of the building by a fire separation having not less than a 1 h fire-resistance rating, except that a 45 min fire separation is permitted where the fire-resistance rating of the floor assembly is not required to exceed 45 min, or where such rooms are sprinklered.

- ✓ Garbage/recyclables should be emptied from the garbage room on a regular basis so as not to accumulate in quantities that will constitute an undue fire hazard.
- ✓ Garbage rooms are designed for the temporary storage of garbage /recyclables only. There should be no storage of any other items.
- ✓ When the garbage/recyclables are periodically picked up from the room, the room should be empty. Where garbage and recyclables are picked up on an alternating regular schedule, some garbage or recyclables may be left in the room temporarily until the regularly scheduled pick-up date for the garbage or recyclables.
- ✓ Garbage rooms should have no holes in walls/ceilings or any part of the required fire separation (at least 45 minutes).

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8.7 Laundry Drying Equipment (lint traps)

Code Reference and Summary - NFC 2.4.1.4. (1), By Law M-200 26A(1)

*Lint traps in laundry equipment shall be cleaned after each use of the equipment
26A(1)*

All laundry rooms shall include signs indicating that lint traps in laundry equipment shall be cleaned before and after each use of the equipment.

- ✓ Check to ensure lint traps are clean.
- ✓ All laundry rooms shall include signs indicating that lint traps in laundry equipment shall be cleaned before and after each use of the equipment.

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8.8 Laundry Drying Equipment (ducting)

Code Reference and Summary - NFC 2.6.1.1., NBC 6.3.2.10., B149.1

NBC

Exhaust Ducts and Outlets

3) Exhaust ducts of ventilating systems shall have provision for the removal of condensation where this may be a problem.

7) Exhaust ducts connected to laundry-drying equipment shall be

- a) independent of other exhaust ducts,*
- b) accessible for inspection and cleaning, and*
- c) constructed of a smooth corrosion-resistant material. (See Note A-6.3.2.10. (7) and (8).)*

8) Where collective venting of multiple installations of laundry-drying equipment is used, the ventilation system shall

- a) be connected to a common exhaust duct that is vented by one central exhaust fan and incorporates one central lint trap,*
- b) include an interlock to activate the central exhaust fan when laundry-drying equipment is in use, and*
- c) be provided with make-up air. (See Note A-6.3.2.10. (7) and (8).)*

A-6.3.2.10. (7) and (8)

Exhaust Ducts Connected to Laundry-Drying Equipment.

Clothes dryers are a major cause of fires in buildings often due to a build-up of lint in the system, which then ignites or obstructs the venting or ventilation. Proper cleaning and regular maintenance of lint traps is directly proportional to the ease of access to the lint traps. It is therefore important to ensure that lint traps in multiple installations of laundry-drying equipment are installed in such a way as to allow easy access for inspection, maintenance, repair and cleaning.

9) Exhaust ducts or vents connected to laundry-drying equipment shall discharge directly to the outdoors.

Gas Dryers

Commercial-type clothes dryers

A dryer used in a laundromat-type of installation shall be installed such that access to the top of the dryer is screened or otherwise protected to prevent any material coming into contact with the hot surface. Except where permitted by Clause 4.13.2, a dryer shall have the following minimum clearances from combustible material:

- (a) above — 18 in (450 mm);*
- (b) front — 18 in (450 mm); and*
- (c) back and sides — 18 in (450 mm).*

A certified flexible foil noncombustible-type duct may be used as a transition connection between the dryer exhaust and a rigid moisture duct.

A dryer shall be connected to a metal moisture-exhaust duct that terminates outdoors not less than 3 ft (1 m) from any pressure regulator vent termination and not less than 10 ft (3 m) from a fresh-air intake. A moisture-exhaust duct shall not be secured with screws and shall not be connected into any vent connector, vent, or chimney.



Provision shall be made for make-up air to the area where the dryer is installed.

A moisture-exhaust duct shall have a clearance of at least 6 in (150 mm) to combustible material but may be installed with a reduced clearance, provided that the combustible material is protected as specified in Table 4.1.

Domestic-type clothes dryers

A dryer shall be equipped with a moisture-exhaust duct that terminates outside the building, and the duct shall be constructed of a material that is

(a) noncombustible; or

(b) certified as meeting the requirements for Class 1 air ducts contained in CAN/ULC-S110.

A moisture-exhaust duct shall not terminate within 3 ft (1 m) in any direction of any pressure regulator vent termination or fresh-air intake.

- ✓ Visually check both the inside and the back of the dryer(s) looking for lint build-up, disconnected or excessively long length(s) of duct(s) or combustible waste/lint thrown behind the dryer(s).
- ✓ Ductwork must be non-combustible and as short and direct as practical.

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