



 **Morinville**

BUILDING OWNER'S RESPONSIBILITIES FOR FIRE SAFETY



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Building Owner's Responsibilities for Fire Safety

Fire Code Requirements for the Maintenance of Buildings and Life Safety Systems

The Morinville Fire Department has prepared this reference document listing the typical fire safety maintenance requirements as found in the National Fire Code, 2019 Alberta Edition. With some exceptions, these requirements apply to all buildings in the Town of Morinville. For a complete list of requirements see the National Fire Code, 2019 Alberta Edition – also referred to below as NFC(AE).

Who Is Qualified?

Persons who inspect, test and maintain life safety systems must be qualified for the specific system. This typically means that the person will either be a journeyman electrician,

certified fire alarm technician, journeyman sprinkler system installer or other qualified person as per provincial or the Town of Morinville Fire Department requirements. Owner(s) are responsible for ensuring that the persons they hire are qualified to perform the work they are doing.

Consequences for Failing to Comply

As per the *Alberta Safety Codes Act*, Section 68(1), owners failing to comply with maintenance requirements as identified in the NFC(AE) may be subject to fines of not more than \$100,000 and/or imprisonment for a term not exceeding 6 months for the first offence. Second and subsequent offences may be subject to a fine of not more than \$500,000 and/or imprisonment for a term not exceeding 12 months.

Fire Safety Maintenance Requirements

Responsibilities

As identified in the National Fire Code – 2019 Alberta Edition.

Responsible Parties as per Division C, Article 2.2.1.1

Unless otherwise specified, the owner or the owner's authorized agent shall be responsible for carrying out the provisions of this Code.

Shutdown of Fire Alarm Systems as per Division B, Article 2.8.2.8. If a fire alarm and detection system, or part thereof, is inoperative for more than 2 hours for any reason, the owner shall notify the fire department, and when directed, provide acceptable surveillance within the building continuously until the fire alarm and detection system is restored to operating condition.

Making Repairs or Alterations to Life Safety Systems as

per Division B, Article 6.1.1.3. Before repairs or alterations are made to fire protection installations, including but not limited to fire extinguishing systems and fire alarm and detection systems, a procedure of notification acceptable to the fire department shall be established, and the procedure may include the notification of the fire department and the building occupants.

Keeping of Records as per Division C, Article 2.2.1.2

See "On-Site Retention of Records."

Definitions

Authority Having Jurisdiction (AHJ) means a safety codes officer in the fire discipline exercising authority pursuant to designation of power and terms of employment in accordance with the Safety Codes Act.

Check means a visual observation to ensure the device or system is in place and is not obviously damaged or obstructed.

Inspect means physical examination to determine that the device or system will apparently perform in accordance with its intended function.

NBC(AE) means the National Building Code – 2019 Alberta Edition, previously known as the "Alberta Building Code" (ABC).

NFC(AE) means the National Fire Code – 2019 Alberta Edition, previously known as the "Alberta Fire Code" (AFC).

Owner means a lessee, a person in charge, a person who has care and control and a person who holds out that the person has the powers and authority of ownership or who, for the time being, exercises the powers and authority of ownership.

Supervisory Staff means those occupants of a building who have some delegated responsibility for the fire safety of other occupants under the fire safety plan.

Test means operation of device or system to ensure that it will perform in accordance with its intended function.

Water-Based Fire Protection Systems include sprinkler systems, standpipes, private hydrants, hose systems, water spray fixed systems, foam-water sprinkler systems, foam-water spray systems, and fire pumps.

Fire Safety Maintenance Requirements

On-Site Retention of Records

NFC(AE) Division C, Article 2.2.1.2 requires that records be retained **at the premises** for examination by the AHJ. To comply with these requirements, the Morinville Fire Department recommends maintaining a printed copy of these records in an easy-to-find physical binder labeled "Life Safety Records."

Owners who are unable to produce records in a timely manner are subject to non-compliance fees and/or charges under the Alberta Safety Codes Act.

This binder must be located in one of the following locations:

1. Fire Safety Plan box found near the main entrance
2. Central Alarm and Control Facilities (CACF) Room, if your building is equipped with one.
3. On-site central records keeping room, for institutions that manage multiple buildings located in one physical area (e.g.: hospital complexes, large educational institutions, large industrial sites). In these instances, one binder per building is required.

Requirements

1. The original or a copy of records required by the NFC(AE) shall be retained **at the premises** for examination.
NFC(AE) Div. C 2.2.1.2.(1)
2. Records of **fire evacuations** and **fire safety drills** shall be retained at the premises for examination.
NFC(AE) Div. C 2.2.1.2.(2)
3. The **initial verification** or **test reports** for each system shall be retained throughout the life of the systems.
NFC(AE) Div. C 2.2.1.2.(3)
4. Records of tests, inspections, maintenance or operational procedures undertaken after the initial tests referred to in #3 shall be retained so that at least the current and previous year's records are available.
NFC(AE) Div. C 2.2.1.2.(4)
5. No record shall be destroyed within two years of having been prepared.
NFC(AE) Div. C 2.2.1.2.(5)

Records to be Retained

The following is a list of records that are frequently requested by the AHJ and are to be retained on-site as they apply to your building.

This is not a complete list of records that may be required to be retained on-site. See code references marked with an asterisk (*) under "Typical Requirements" for additional tests, inspections and maintenance where written records must be retained.

Records and Time for Inspections

Emergency Generators – This Specific Record may be kept in the generator room or with all of the records in the "Life Safety Records" binder. Records of inspections for Initial, Weekly, Monthly, 6 Month, Annual, 5 Year must be kept for review.

Fire Alarm Systems

Records of inspections for the initial, monthly and annual inspections must be kept for review.

Commercial Cooking Exhaust and Fire-Protection Systems

Records of the inspections for the initial inspections and every 6 months consecutively must be kept for review.

Other Special Fire Suppression Systems

Records of the inspections for the initial inspection and every 6 months consecutively must be kept for review.

Doors with Electromagnetic Locks or Openers

Records of the initial inspection and then annually thereafter must be kept for review.

Emergency Lighting

Records of the initial inspection and then annually thereafter must be kept for review.

Fire Alarm System

Records of the initial inspection and then annually thereafter must be kept for review.

Make-Up Air Systems and CO/N20 Detectors in enclosed parking garages

Records of the initial inspection and then annually thereafter must be kept for review.

Water-Based Fire Protection Systems including, but not limited to:

Fire Pumps

Records of the initial inspection and then annually thereafter must be kept for review.

Private Hydrants

Records of the initial inspection and then annually thereafter must be kept for review.

Sprinkler Systems

Records of the initial inspection and then annually thereafter must be kept for review.

Standpipes

Records of the initial inspection and then annually thereafter must be kept for review.

Proof of Deficiency Resolution

Where deficiencies are noted on reports, subsequently issued letters and/or updated reports from qualified person(s) that speak to these deficiencies must be retained with the originally issued report. The Morinville Fire Department requires these documents as proof that deficiencies have been addressed.

Typical Requirements

Code references noted below with an asterisk (*) require written records as per NFC(AE) Division C, Article 2.2.1.2.

Whenever a defect or deficiency is discovered in any fire safety equipment through these maintenance requirements, **CORRECTIVE ACTION** must be taken **IMMEDIATELY** by the owner or owner's authorized agent.

Failure to take **CORRECTIVE ACTION** in a timely manner may be deemed to be a violation of the Alberta Safety Codes Act and may result in actions being taken against the owner(s) in care and control.

Daily Checks, Inspections, Testing and Maintenance will include the Following:

Exit Lights

Check to ensure they are illuminated and in good repair. (NFC(AE) 2.7.3.1)

Exit Signs

Check to ensure they are clean, legible and illuminated where powered. (NFC(AE) 2.7.3.1)

Fire Alarm Systems

Check for trouble on the primary or remote trouble indicators as per CAN/ULC S536-13.5.1 (NFC(AE) 6.3.1.2). Check status of primary power "on" or equivalent indicator as per CAN/ULC S536-13.5.1 (NFC(AE)6.3.1.2)

Fire Doors

Check Doors in fire separations to ensure they remain closed, unless equipped with hold-open devices conforming to NBC(AE) (NFC(AE) 2.2.2.4)

Signal Transmissions

If a fire alarm or sprinkler system is required to transmit a signal to the fire department, the connection shall be maintained at all times. (NFC(AE)6.3.1.5)

Torches, Regulators and welding equipment

Check for Leakage and Defects (NFC(AE)5.2.2.2)

Weekly Checks, Inspections, Testing and Maintenance will include the following:

Emergency Generator Systems

Inspect, Test and Maintain as per CAN/CSA C282-15 Table #2 (NFC(AE)6.5.1.1*)

Emergency Generator Systems in Health Care Facilities

Inspect, Test and Maintain as per CAN/CSA C282-15 Table #3 (NFC(AE)6.5.1.1*)

Hoods Ducts and Filters in Ventilation Systems

Inspect for accumulation of combustible deposits and clean as required. (NFC(AE)2.6.1.3)

Monthly Checks, Inspections, Testing and Maintenance will include the following:

Emergency Generator Systems

Inspect, Test and Maintain as per CAN/CSA C282-15 Table #2 (NFC(AE)6.5.1.1*)

Emergency Lighting Systems (Self-Contained Unit Equipment)

Inspect, Test and Maintain batteries, units and lamps as per Article 6.5.1.6 (AFC(AE)2.7.3.1(3) and AFC(AE)6.5.1.6))

Exhaust Systems including Hoods, Grease Removal Devices, Fans and Duct on Commercial Equipment used in solid Fuel Cooking Operations

Inspect and Clean as per NFPA 96-2017. (NFC(AE)2.6.1.9*)

Exit Doors

Test all Doors forming a part of a means of egress to ensure they are operable. (NFC(AE)2.7.2.1.(1))

Exit Signs with Battery Backup

Inspect to ensure visibility upon failure of the primary power supply. (NFC(AE)6.5.1.8.(2)(a))

Fire Alarm System

Inspect and Test on emergency power supply to confirm operation of Fire Alarm System as per CAN/ULC S536-13 (NFC(AE)6.3.1.2*)

Fire Doors

Operate all doors in fire separations to ensure they are maintained as per Sentence 2.2.2.4.(1) (NFC(AE)2.2.2.4.(3))

Fire Safety Measures in Daycares

Inspect in conformance with fire safety plan for fire prevention. (NFC(AE)2.10.4)

Portable Fire Extinguishers

Inspect and sign monthly tag area as per NFPA 10-2013 7.2.2. (NFC(AE)6.2.1.1*)

Voice Communication Systems

Where such systems are part of the building evacuation plan and not otherwise electronically supervised, Test as per (NFC(AE)6.3.1.4.(2)*)

Every 3 Months Checks, Inspections, Testing and Maintenance will include the Following:

Exhaust Systems including Hoods, Grease Removal Devices, Fans and Ducts on Commercial Equipment used in 24-hour Cooking, Charbroiling, Wok Cooking

Inspect and Clean as per NFPA 96-2017 (NFC(AE)2.6.1.9*)

Fire Emergency Systems in High Buildings as defined by Section 3.2.6 of the Building Code

Test, Operate and Maintain as per NFC(AE) Part 7 (NFC(AE)7.1.1.2)

Every 6 Months Checks, Inspections, Testing and Maintenance will include the Following:

Emergency Generator Systems

Inspect, Test and Maintain as per CAN/CSA C282-15 Table #4 (NFC(AE)6.5.1.1*)

Exhaust Systems for Commercial Cooking Equipment including Hoods, Grease Removal Devices, fans and Ducts

Inspect and Clean as per NFPA 96-2017 unless otherwise specified. (NFC(AE)2.6.1.9*)

Fire Marshalls for Group B, Division 2 Occupancies

Inspect the building and all related buildings for fire hazards and provide a written report to the person in charge as per Article 2.15.1.1 and forward a copy to the AHJ (NFC(AE)2.15*)

Fire-Protection Systems for Commercial Cooking Equipment

Inspect and Maintain as per NFPA 96-2017 11.2 (NFC(AE) 2.6.1.9*)

Special Fire Suppression Systems

Test and Maintain Systems as per appropriate NFPA Code As per NFC(AE) Div B, Article 2.1.3.5 (NFC(AE)6.6.1.1*)

Annual Checks, Inspections, Testing and Maintenance will include the Following:

Building Emergency Power Systems in High Buildings

Operate and test all elevators supplied with emergency power as per NFC(AE) Div. B 7.2.2 (NFC(AE)7.2.2.1.(3)*)

Chimney Spark Arrestors

Inspect, Clean and repair burnt-out arrestors chimneys flues and flue pipes (NFC(AE)2.6.2.3)

Doors (Revolving)

Test safety Features. (NFC(AE)2.6.1.4.(1))

Doors (Sliding)

Test Sliding doors that are required to swing on their vertical axis in the direction of egress when pressure is applied. (NFC(AE)2.7.2.1.(3)*)

Doors with Electromagnetic Locks

Test to ensure they work properly (NFC(AE)2.7.2.1.(4)*)

Emergency Generator Systems

Inspect, Test and Maintain as per CAN/CSA C282-15 Table #5 (NFC(AE)6.5.1.1*)

Emergency Lighting Systems (Self Contained Unit Equipment)

Inspect, Test and Maintain batteries, units and lamps as per Article 6.5.1.6 (NFC(AE)6.5.1.6*)

Emergency Lights where not covered by Article 6.5.1.6

Inspect to ensure that they are functional. (NFC(AE)6.5.1.7)

Exhaust Systems for Commercial Cooking Equipment installed in Churches, Day Camps, Seasonal Businesses or Senior Centers including Hoods, Grease Removal Devices, Fans and Ducts

Inspect and Clean as per NFPA 96-2017 (NFC(AE)2.6.1.9*)

Exit Signs

Inspect to ensure visibility upon failure of the primary power supply. (NFC(AE)6.5.1.8.(1))

Exit Signs with Battery Back-up

Inspect to ensure visibility upon failure of the primary power supply for a duration equal to the design criterion (NFC(AE)6.5.1.8.(2)(b))

Fire Alarm System

Inspect and test the systems per CAN/ULC S536-13 by qualified personnel acceptable to AHJ (NFC(AE)6.3.1.2*)

Fire Dampers, Smoke Dampers and Fire Stop Flaps Inspect and Test as per NFPA 80-2013 (NFC(AE)2.2.2.4)

Fire Extinguishers

Inspect, Test and Maintain as per NFPA 10-2013 by qualified personnel acceptable to the AHJ (NFC(AE)6.2.1.1*)

Fire Safety Plan

Review for changes in use and other characteristics of the building (NFC(AE)2.8.2.1.(2))

Mechanical Air-Conditioning and Ventilating Systems, Exhaust and Make-Up Air Systems

Test system initiating devices (CO/N20 detectors) in enclosed parkades, Operate disconnect switches (NFC(AE)6.2.1.6(2)*)

Smoke Detectors, 10 years of Age

Where not otherwise automatically tested by the fire alarm system, Test for sensitivity or replace as per NFC(AE) (NFC(AE)6.3.1.2.(4))

Voice Communications Systems

Test the system as per NFC(AE) by qualified personnel acceptable to AHJ (NFC(AE)6.3.1.4*)

Water-Based Fire Protection System

Inspect, Test, Operate and Maintain components of each system by qualified personnel acceptable to the AHJ and required by NFPA 25-207, the appropriate NFPA or CAN/ULC document referenced in the NFC(AE) (NFC(AE)6.4.1.1)

Every 2 Years Checks, Inspections, Testing and Maintenance will include the Following:

Smoke Control Measures in High Buildings – Test pressurized building systems in different seasons as per NFC(AE) (NFC(AE) Section 7.3)

Every 3 Years Checks, Inspections, Testing and Maintenance will include the Following:

Fire Extinguishers

Replace premixed agent in liquid charge-type AFFF and FFFP extinguishers as per NFPA 10-2013 7.7.2.3 (NFC(AE)6.2.1.1*)

Every 5 Years Checks, Inspections, Testing and Maintenance will include the Following:

Emergency Generator Systems

Inspect, Test and Maintain as per CAN/CSA C282-15 Table #6 (NFC(AE)6.5.1.1*)

Fire Extinguishers

Hydrostatically Test at 5 years of age as required by NFPA 10-2013 Table 8.3.1 (NFC(AE)6.2.1.1*)

Every 6 Years Checks, Inspections, Testing and Maintenance will include the Following:

Fire Extinguishers

Replace the extinguishing agent in stored-pressure fire extinguishers as per NFPA 10-2013 7.3.6 (NFC(AE)6.2.1.1*)

Every 12 Years Checks, Inspections, Testing and Maintenance will include the Following:

Fire Extinguishers

Hydrostatically Test at 12 years of age as required by NFPA 10-2013 Table 8.3.1 (NFC(AE)6.2.1.1*)

As Required Checks, Inspections, Testing and Maintenance will include the Following:

Access Panels and Windows

Maintain free of obstruction where provided to facilitate access for firefighting operations. (NFC(AE)2.5.1.2)

Chimneys, Flues and Flue Pipes

Maintain by cleaning to keep them free of dangerous accumulations of combustible deposits; replace or repair as per Sentence 2.6.1.4.(3); Maintain clearances between chimneys, flue pipes or appliances and combustible construction as per NBC(AE) (NFC(AE)2.6.1.4.(2) & 2.6.1.5.(1))

Closures

Inspect and Maintain so that defects are corrected, and closures are operable at all times. (NFC(AE)2.2.2.4)

Repair where damaged to Maintain the integrity of their fire-protection rating. (NFC(AE)2.2.2.2)

Combustible Materials

Check to ensure materials are not accumulating in any part of an elevator shaft, ventilation shaft, means of egress, service room or service space, or being stored in crawl spaces, ceiling spaces or roofs. (NFC(AE)2.4.1.1)

Door Release Hardware Latches and Locks

Maintain in good operational and working condition at all times (NFC(AE)2.7.2.1.(6))

Electrical Installations

Use and Maintain so as to not constitute an undue fire hazard. (NFC(AE)2.4.7.1)

Exterior Passageways and Exit Stairs

Maintain, free of snow and ice accumulations; maintain equipment used to melt snow or ice. (NFC(AE)2.7.1.7)

Fire Department Access

Ensure streets, yards and roadways that are provided for fire department access are kept clear. (NFC(AE)2.5.1.5)

Fire Department Connections

Maintain free of obstructions at all times (NFC(AE)2.5.1.4)

Fire Separations

Repair where damaged to Maintain the integrity of the fire separation (NFC(AE)2.2.1.2)

Flame-Retardant Treatments

Maintain by renewing as often as is required to ensure that the material will pass the match flame test in NFPA 705-2018 (NFC(AE)2.3.2.2 & 2.9.2.1)

Heating, Ventilating and Air-Conditioning Systems, including appliances, chimneys and flue pipes

Operate and Maintain so as not to create a hazardous condition. (NFC(AE)2.6.1.6.(1))

Laundry Equipment

Check and empty lint traps to prevent lint from accumulating. (NFC(AE)2.4.1.4)

Means of Egress

Maintain in good repair and free of obstructions. (NFC(AE)2.7.1.6)

As Required for Hazardous Processes and Operations Checks, Inspections, Testing and Maintenance will include the Following:

Dipping and Coating Processes

Maintain as per NFPA 34-2016 (NFC(AE)5.4.6.2)

Dust-Producing Operations

Maintain (by cleaning) building and machinery of any combustible dust produced. (NFC(AE)5.3.1.2 & 5.3.2.2)

Industrial Ovens

Inspect, Maintain and clean all industrial ovens and associated ductwork as per NFPA 86-2015. (NFC(AE)5.4.1.2)

Spray Booths and Dry-powder Finishing Operations

Maintain as per NFPA 33-2016 and (by cleaning) residue on walls, ceilings, floors, on filters and in plenum spaces, etc. from spraying operation, Maintain filters by replacing as required. (NFC(AE)5.4.5.2)

Holding of Fire Drills – Subsection 2.8.3 (All written records must be retained as per NFC(AE) Division C, Article 2.2.1.2)

Monthly Drills

For supervisory staff in daycare centers and Group B major occupancies (health care)

Term Drills

(3 times in the Fall term and 3 times in the Spring term)
For Schools attended by children, total evacuation drills must be conducted for each period.

Every 2 Months Drills

For supervisory staff in High Buildings as per NBC(AE) Division B Subsection 3.2.6

Every 3 Months Drills

For supervisory staff in laboratories.

Annual Drills

For supervisory staff in ALL other buildings.

Water-Based Fire Protection Systems

As per NFC(AE) Division B, Article 6.4.1.1., water-based fire protection systems shall be inspected, tested and maintained in conformance with NFPA 25-2017, "Inspection, Testing and Maintenance of Water-Based Fire Protection Systems."

In most cases, inspection, testing and maintenance may only be performed by qualified personnel acceptable to the AHJ as per NFC(AE) Division B, Article 2.2.4.4. When in doubt contact a Fire Safety Codes Officer for clarification.

Below is an abbreviated list of typical requirements. Consult the appropriate NFPA standard for a complete list.

Daily Checks

Automatic Tank Fill Valve

Inspect enclosures during cold weather (NFPA 25 Section 13.4.3.1.1)

Water Storage Tank

Inspect heating systems for tanks without supervised low temperature alarm. (NFPA 25 Section 9.2.2.2)

Water-Based Fire Protection Systems including Valve Enclosures

Inspect for appropriate heat during cold weather. (NFPA 25)

Weekly Checks

Common Components and Valves

Inspect backflow prevention assemblies, sealed control valves, gauges (NFPA 25 Chapter 13)

Common Components and Valves

Test fire pump casing and pressure-relief valves. (NFPA 25 Chapter 13)

Fire Pump

Inspect diesel and electric systems, pump, pump house/room, steam pump system. (NFPA 25 8.2.2)

Fire Pump

Test diesel and electric systems, pump, pump house/room, steam pump system. (NFPA 25 Section 8.3.1.1)

Fire Pump

Test electric fire pumps identified in 8.3.1.2.1 (NFPA 25 Section 8.3.1.2)

Foam-Water Sprinkler System

Inspect control valves. (NFPA 25 Chapter 13)

Water Storage Tank

Inspect heating systems for tanks with supervised low temperature alarm connected to constantly attended location. (NFPA 25 Section 9.2.2.1)

Water Storage Tank

Inspect unsupervised temperature alarms. (NFPA 25 Section 9.2.4.3)

Water Storage Tank

Inspect water temperature for tanks without supervised low-temperature alarms. (NFPA 25 Section 9.2.4.3)

Monthly Checks

Automatic Tank Fill Valve

Inspect exterior. (NFPA 25 Section 13.4.3.1.3)

Common Components and Valves

Inspect locked or supervised control valves. (NFPA 25 Chapter 13)

Fire Pump

Test electric fire pumps not identified in 8.3.1.2.1 (NFPA 25 Section 8.3.1.2)

Foam-Water Sprinkler System

Inspect discharge device location, position and all proportioning system(s); Maintain foam concentrate pump operation. (NFPA 25 Section 11.2.4, 11.2.8 and 11.4.6.1)

Sprinkler System

Inspect gauges on dry and pre-action systems. (NFPA 23 Chapter 13)

Water Storage Tank

Inspect air pressure on tanks without a supervised air pressure source. (NFPA 25 Section 9.2.2.2)

Water Storage Tank

Inspect supervised temperature alarms. (NFPA 25 Section 9.2.3.2)

Water Storage Tank

Inspect water temperature for tanks with supervised low temperature alarms. (NFPA 25 Section 9.2.4.2)

Water Storage Tank

Test high temperature limit switches, low water temperature alarms. (NFPA 25 Sections 9.3.3 and 9.3.4)

Quarterly Checks

Common Components and Valves

Inspect fire department connections, pressure-reducing and relief valves for sprinkler systems, supervisory signal devices, hose valves. (NFPA 25 Sections 13.8.1, 13.5.1.1, 13.2.8.1 and 13.6.1)

Common Components and Valves

Test priming water/low air pressure alarm/quick-opening devices for dry pipe valves and pre-action valves, waterflow alarms. (NFPA 25 Sections 13.4.5.2, 13.4.3.2.10 and 13.2.6)

Fire Pump

Test fuel tank, float switch, and supervisory signal for interstitial space. (NFPA 25 Section 8.1.1.2.7)

Foam-Water Sprinkler System

Inspect drainage in system area, Inspect and Maintain foam concentrate strainer(s). (NFPA 25 Sections 11.2.7, 11.2.6.4 and Section 11.4)

Private Fire Service Main

Inspect hose houses. (NFPA 25 Section 7.2.2.7)

Sprinkler System

Inspect gauges for wet and deluge systems. (NFPA 25 Chapter 13)

Sprinkler System

Inspect supervisory signal devices, valve supervisory switches, waterflow alarm devices. (NFPA 25 Section 5.2.4)

Sprinkler System

Test waterflow alarm devices (mechanical). (NFPA 25 Section 5.3.2.1)

Water Spray Fixed System

Inspect drainage. (NFPA 25 Section 5.3.2.1)

Water Spray Fixed System

Operate and Test waterflow alarm. (NFPA 25 Chapter 5)

Water Storage Tank

Inspect air pressure for supervised air pressure sources, catwalks and ladders, support structure, surrounding area, tank exterior, water levels for tanks equipped with a supervised water level alarm. (NFPA 25 Sections 9.2.2.1, 9.2.4 and 9.2.1.1)

Semi-Annual Checks

Common Components and Valves

Inspect valve supervisory signal initiating devices. (NFPA 25 Section 13.3.2.1.3)

Fire Pump

Test diesel fuel. (NFPA 25 Section 8.3.4)

Private Fire Service Main

Inspect monitor nozzles. (NFPA 25 Section 7.2.2.6)

Sprinkler System

Test waterflow alarm devices (vane and pressures switch types) (NFPA 25 Section 5.3.2.2)

Water Storage Tank

Test water level alarms. (NFPA 25 Section 9.3.5)

Annual Checks

(Retain written records per NFC(AE) Division C, Article 2.2.1.2)

Automatic Tank Fill Valve

Inspect interior, Test valve. (NFPA 25 Section 13.4.3.1.4 and 9.5.3)

Common Components and Valves

Inspect, Test and Maintain. (NFPA 25 as per Table 13.1.1.2)

Fire Pump

Inspect, Test and Maintain. (NFPA 25 as Per Table 8.1.1.2)

Foam-Water Sprinkler System

Inspect, Test and Maintain. (NFPA 25 as per Table 11.1.1.2)

Private Fire Service Main

Maintain hose, houses, hydrants, mainline strainers, monitor nozzles. (NFPA 25 Section 7.2.2 and Section 7.4)

Private Fire Service Main

Test hydrant and monitor nozzle flow. (NFPA 25 Section 7.3)

Private Fire Service Main

Inspect hydrants, mainline strainers, exposed piping. (NFPA 25 Section 7.2.2)

Sprinkler System

Inspect, Test and Maintain. (NFPA 25 as per Table 5.1.1.2)

Standpipe and Hose System

Inspect, Test and Maintain. (NFPA 25 as per Table 6.1.1.2)

Water Spray Fixed System

Inspect. Test and Maintain. (NFPA 25 as per Table 10.1.1.2)

Water Storage Tank

Inspect, Test and Maintain. (NFPA 25 as per Table 9.1.1.2)

3 Year Checks

Water Storage Tank

Inspect steel tanks without corrosion protection. (NFPA 25 Section 9.2.5.1.1)

5 Year Checks

Automatic Tank Fill Valve

Inspect strainers, filters, orifices (inspect/clean). (NFPA 25 Section 13.4.1.2)

Common Components and Valves

Inspect, Test and Maintain. (NFPA 25 as Per Table 13.1.1.2)

Foam-Water Sprinkler System

Inspect, Test and Maintain. (NFPA 25 as per Table 11.1.1.2)

Private Fire Service Main

Test exposed and underground piping flow. (NFPA 25 Section 7.3.1)

Sprinkler System

Test gauges, extra high temperature solder-type sprinklers, sprinklers in harsh environments. (NFPA 25 Chapter 13 and Sections 5.3.1.1.1)

Standpipe and Hose Systems

Test flow, hydrostatic, and as per NFPA 1962, hose. (NFPA 25 Sections 6.3.1 and 6.3.2)

Water Spray Fixed System

Maintain strainers (Basket/screens). (NFPA 25 Sections 10.2.1 and Section A.10.2.6)

Water Storage Tank

Inspect interior (all other tanks), Test level indicator, pressure gauges. (NFPA 25 Sections 9.2.5.1.2, 9.3.1 and Chapter 13)

****10 Year Checks**

Where required by these sections, sample sprinklers shall be submitted to a recognized testing laboratory acceptable to the authority having jurisdiction for field service testing.

Foam-Water Sprinkler System with Bladder Tank Type

Maintain foam concentrate tanks with hydrostatic Test or as required by NFPA 25 as per Table 11.1.1.2 (NFPA 25 Section 11.4)

Sprinkler System

Test Dry Sprinklers. (NFPA 25 Section 5.3.1**)

Sprinkler System

Test fast-response sprinklers - 20 years of age. (NFPA 25 Section 5.3.1**)

Sprinkler System

Test sprinklers - 50 years of age. (NFPA Section 5.3.1**)

****20 Year Checks**

Where required by these sections, sample sprinklers shall be submitted to a recognized testing laboratory acceptable to the authority having jurisdiction for field service testing.

Sprinkler System

Test fast-response sprinklers. (NFPA 25 Section 5.3.1**)

****50 Year Checks**

Where required by these sections, sample sprinklers shall be submitted to a recognized testing laboratory acceptable to the authority having jurisdiction for field service testing.

Sprinkler System

Test Sprinklers. (NFPA 25-2017 Section 5.3.1**)

****75 Year Checks**

Where required by these sections, sample sprinklers shall be submitted to a recognized testing laboratory acceptable to the authority having jurisdiction for field service testing.

Sprinkler System

Test Sprinklers. (NFPA 25-2017 Section 5.3.1**)

Other Systems and Check intervals

Water Mist Systems

Inspect, Test and Maintain. (NFPA 25 as per Chapter 12)

Testing of Electromagnetic Locks

As per NFC(AE) Div. B 2.7.2.1, when doors are equipped with electromagnetic locks, these locks shall be tested at intervals not greater than 12 months. This has been a requirement since 1997.

Electromagnetic locks that malfunction or are not installed to-code pose a significant threat to building occupants and emergency responders. To ensure that these locks are maintained, an itemized, dated and signed report issued by a qualified individual (journeyman electrician or fire alarm technician) must be made, retained for at least 2 years and made available to the AHJ upon request.*

The report must speak to the operation of each magnetic lock on the premises. Each lock must be tested to ensure compliance with building code at time of installation.

Test for All Occupancies Except B2/B3

Test #1

Location of door. (NFC(AE) Division B 2.7.2.1)

Applies Since AFC 1997

Test #2

Releases upon actuation of the alarm signal from the building's fire alarm system. (NBC(AE) Division B 3.4.6.16.(4)(b)**)

Applies Since ABC 1990

Test #3

Releases upon loss of power controlling the electromagnetic locking mechanism and associated auxiliary controls. (NBC(AE) Division B 3.4.6.16.(4)(c))

Applies Since ABC 1990

Test #4

Releases immediately upon actuation of a manually operated switch "readily accessible only to authorized personnel" (NBC(AE) Div. B 3.4.6.16.(4)(d))

Applies Since ABC 1990

Test #5

A force of not more than 90 N applied to the door opening hardware initiates an irreversible process that releases the locking device within 15 seconds and does not re-lock (crossover doors excepted – see Test #11). (NBC(AE) Div. B 3.4.6.16.(4)(e))

Applies Since ABC 1990 and Crossover Doors Since NBC(AE)2019

Test #6

Upon release, requires the locking device to be manually reset by the actuation of the operated switch "readily accessible only to authorized personnel" (NBC(AE) Div. B 3.4.16.(4)(f))

Applies Since ABC 1990

Test #7

Has a legible sign permanently mounted on the door to indicate that the locking device will release within 15 seconds of applying pressure to the door opening hardware. (NBC(AE) Div. B 3.4.6.16.(4)(g))

Applies Since ABC 1990

Test #8

The total time delay for all electromagnetic locks in any path of egress to release is not more than 15 seconds. (NBC(AE) Div. B 3.4.6.16.(4)(h))

Applies Since NBC(AE) 2019 – Only 15 Seconds

The total time delay for all electromagnetic locks in any path of egress to release is not more than 30 seconds in buildings built under the ABC 1990 until ABC 2014. (ABC 2014 Division B 3.3.1.13.(10))

Applies since ABC 1990-ABC 2014 – Only 30 seconds

Test #9

Where a bypass switch is installed to allow testing of the fire alarm system, actuation of the switch complies with NBC(AE) (NBC(AE) Div. B 3.4.6.16.(4)(i))

Applies Since NBC(AE) 2019

Test #10

Emergency lighting is provided at each door. (NBC(AE) Div. B 3.4.6.16.(4)(j))

Since NBC(AE) 2019

Test #11

If the electromagnetic lock is installed on a door providing emergency crossover access to floor areas from exit stairs in accordance with NBC(AE) Div. B 3.4.6.18, complies with NBC(AE). (NBC(AE) Div. B 3.4.6.16.(4)(k))

Applies Since NBC(AE) 2019

* Annual fire alarm inspection and testing only refers to the operation of ancillary device circuits for door release. As such, these reports are not considered appropriate tests of electromagnetic locks.

** Note that alarm signals differ from alert signals, however release upon actuation of an alert signal from the building's fire alarm system is also permitted.

Test for Electromagnetic Locks within Group B, Division 2 and Division 3 Occupancies

This test is only available for buildings built under Alberta Building Code (ABC) 2014 with STANDATA 14-BCV-011/14-FCV-012 or those built under NBC(AE) 2019 or later. All other buildings must comply with electromagnetic locks as per the applicable building codes.

Test #1

Location of door. (NBC(AE) Div. B 2.7.2.1)
Applies Since ABC 1997

Test #2

Releases upon actuation of the alarm signal from the building's fire alarm system. (NBC(AE) Division B 3.4.6.16.(5)(b)(i))
Applies Since ABC 2014

Test #3

Releases upon loss of power supply and power to maglock auxiliary control. (NBC(AE) Division B 3.4.6.16.(5)(b)(ii))
Applies Since ABC 2014

Test #4

Releases upon actuation of a manually operated switch that is readily accessible at a constantly attended location within the locked space. (NBC(AE) Division B 3.4.6.16.(5)(b)(iii))
Applies Since ABC 2014

Test #5

Releases upon actuation of the manual station installed within 0.5 m of each door and equipped with an auxiliary contact, which directly releases the electromagnetic lock. (NBC(AE) Division B 3.4.6.16.(5)(b)(iv))
Applies Since ABC 2014

Test #6

Upon release, the electromagnetic lock requires manual resetting by actuation of the switch referred to in Subclause (b)(iii) (NBC(AE) Division B 3.4.16.(5)(c))
Applies Since ABC 2014

Test #7

A legible sign with the words "EMERGENCY EXIT UNLOCKED BY FIRE ALARM" written in letters at least 25 mm high with a stroke of at least 5mm wide is permanently mounted on the door (in the direction of travel) (NBC(AE) Division. B 3.4.6.16.(5)(d))
Applies Since ABC 2014

Test #8

The operation of any by-pass switch, where provided for the testing of the fire alarm system, sets off an audible and visual signal at the fire alarm annunciator panel and at the monitoring station referred to by Sentence 3.2.4.7.(4) (NBC(AE) Division B 3.4.6.16.(5)(e))
Applies Since ABC 2019

Test #9

Emergency lighting is provided at the doors. (NBC(AE) Division B 3.4.6.16.(5)(f))
Applies Since ABC 2019

Emergency Planning From Division B, Section 2.8

Since AFC 2014, the building owner is responsible for preparing a fire safety plan, acceptable to the Morinville Fire Department, and appointing supervisory staff to carry out the same in all buildings with public assembly, care, treatment or detention, all buildings equipped with a fire alarm, demolition and construction sites, storage areas required to have a fire safety plan, areas where flammable liquids or combustible liquids are stored or handled, and areas where hazardous processes or operations occur.

Subsection 2.8.1 – General

Article 2.8.1.1 – Application

2.8.1.1.(1) Fire emergency procedures conforming to this Section shall be provided for:

- a) every *building* containing an *assembly, care, treatment or detention occupancy*,
- b) every *building* required by the NBC(AE) to have a fire alarm system,
- c) demolition and construction sites regulated under Section 5.6,
- d) storage areas required to have a fire safety plan in conformance with Articles 3.2.2.5 and 3.3.2.9,
- e) areas where *flammable liquids* or *combustible liquids* are stored or handled, in conformance with Article 4.1.5.5, and
- f) areas where hazardous processes or operations occur, in conformance with Article 5.1.5.1

Article 2.8.1.2 – Training of Supervisory Staff

2.8.1.2.(1) *Supervisory staff* shall be trained in the fire emergency procedures described in the fire safety plan before they are given any responsibility for fire safety. (See Note A-2.8.1.2.(1))

Article 2.8.1.3 – Keys and Special Devices

2.8.1.3.(1) Any keys or special devices needed to operate the fire alarm system or provide access to any fire protection systems or equipment shall be readily available to on-duty *supervisory staff* or located in fire department key boxes conforming to Article 2.5.1.3.

Subsection 2.8.2 – Fire Safety Plan

Article 2.8.2.1 – Measures in a Fire Safety Plan

2.8.2.1.(1) In *buildings* or areas described in Article 2.8.1.1, a fire safety plan conforming to this Section shall be prepared in cooperation with the fire department and other applicable regulatory authorities and shall include:

- a) the emergency procedures to be used in case of fire, including
 - i) sounding the fire alarm (see Note A-2.8.2.1.(1)(a)(i)),
 - ii) notifying the fire department,
 - iii) instructing occupants on procedures to be followed when the fire alarm sounds,
 - iv) evacuating occupants, including special provisions for persons requiring assistance (see Note A-2.8.2.1.(1)(a)(iv)),
 - v) confining, controlling and extinguishing the fire,
- b) the appointment and organization of designated *supervisory staff* to carry out fire safety duties,
- c) the training of *supervisory staff* and other occupants in their responsibilities for fire safety,
- d) documents, including diagrams, showing the type, location

- e) and operation of the building fire emergency systems,
 - e) the holding of fire drills,
 - f) the control of fire hazards in the *building*, and
 - g) the inspection and maintenance of *building* facilities provided for the safety of occupants. (See Note A-2.8.2.1.(1))
- 2.8.2.1.(2) The fire safety plan 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*.

Article 2.8.2.2 – Care, Treatment and Detention Occupancies

2.8.2.2.(1) A sufficient number of supervisory staff shall be on duty in care, treatment and detention occupancies to perform the tasks outlined in the fire safety plan described in Clause 2.8.2.1.(1)(a).

Article 2.8.2.3 – Assembly Occupancies

2.8.2.3.(1) In Group A, Division 1 assembly occupancies containing more than 60 occupants, there shall be at least one supervisory staff member on duty in the building to perform the tasks outlined in the fire safety plan in Clause 2.8.2.1.(1)(a) whenever the building is open to the public.

Article 2.8.2.4 – High Buildings

2.8.2.4.(1) In buildings within the scope of Subsection 3.2.6 of Division B of the NBC(AE), the fire safety plan shall, in addition to the requirements of Sentence 2.8.2.1.(1), include

- a) the training of supervisory staff in the use of the voice communication system,
- b) the procedures for the use of elevators,
- c) the action to be taken by supervisory staff in initiating any smoke control or other fire emergency systems installed in a building in the event of fire until the fire department arrives,
- d) instructions to the supervisory staff and fire department for the operation of the systems referred to in Clause (c), and
- e) the procedures established to facilitate fire department access to the building and fire location within the building.

Article 2.8.2.5 – Retention of Fire Safety Plans

2.8.2.5.(1) The fire safety plan shall be kept in the building for reference by the fire department, supervisory staff and other personnel.

2.8.2.5.(2) The fire safety plan for a building within the scope of Subsection 3.2.6 of Division B of the NBC(AE) shall be kept at the central alarm and control facility.

2.8.2.5.(3) The fire safety plan for a building or facility within the scope of Sections 3.1, 4.1, and 5.1 shall be kept at the principal entrance to the building or facility.

Article 2.8.2.6 – Distribution

2.8.2.6.(1) A copy of the fire emergency procedures and other duties for supervisory staff, as laid down in the fire safety plan, shall be given to all supervisory staff.

Article 2.8.2.7 – Posting of Fire Emergency Procedures

2.8.2.7.(1) At least one copy of the fire emergency procedures shall be prominently posted on each floor area.

2.8.2.7.(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.

2.8.2.7.(3) Where a fire alarm system has been installed with no provisions to transmit a signal to the fire department, a sign shall be posted at each manually actuated signalling box requesting that the fire department be notified and include the telephone number of that department.

Article 2.8.2.8 – Shutdown of Fire Alarm Systems

2.8.2.8.(1) If a fire alarm and detection system, or part thereof, is inoperative for more than 2 hours for any reason, the owner shall notify the fire department, and when directed, provide acceptable surveillance within the building continuously until the fire alarm and detection system is restored to operating condition.

2.8.2.8.(2) Procedures acceptable to the fire department shall be developed to notify occupants if a fire or other emergency occurs while the fire alarm and detection system is inoperative. (See Note A-2.8.2.8.(2))

Subsection 2.8.3 – Fire Drills

Article 2.8.3.1 – Fire Drill Procedures

2.8.3.1.(1) The procedure for conducting fire drills shall be determined by the person in responsible charge of the *building*, taking into consideration

- a) the *building occupancy* and its fire hazards,
- b) the safety features provided in the *building*,
- c) the desirable degree of participation of occupants other than *supervisory staff*,
- d) the number and degree of experience of participating supervisory staff,
- e) the features of fire emergency systems installed in buildings within the scope of Subsection 3.2.6 of Division B of the NBC(AE), and
- f) the requirements of the fire department.

(See Note A-2.8.3.1.(1))

Article 2.8.3.2 – Fire Drill Frequency

(See Article 2.2.1.2. of Division C.)

2.8.3.2.(1) Except as provided in Sentence (2), fire drills as described in Sentence 2.8.3.1.(1) shall be held at intervals not greater than 12 months for the *supervisory staff*, except that

- a) in day-care centres and in Group B *major occupancies*, such drills shall be held at intervals not greater than one month,
- b) in schools attended by children, total evacuation fire drills shall be held at least 3 times in each of the fall and spring school terms, and

- c) in *buildings* within the scope of Subsection 3.2.6 of Division B of the NBC(AE), such drills shall be held at intervals not greater than 2 months.

2.8.3.2.(2) Fire drills in a laboratory shall be held at intervals not greater than 3 months.

Additional special requirements for fire safety plans for the following situations may be found in the National Fire Code, Alberta Edition:

- Storage of dangerous goods
- Indoor storage
- Outdoor storage of tires
- Spill control and drainage systems for flammable and combustible liquids
- Hazardous processes and operations
- Construction and demolition sites

Emergency Planning - Notes

These notes are included for explanatory purposes only and do not form a part of the requirements.

A-2.8.1.2.(1) – Training of Supervisory Staff

Adequately trained supervisory staff can be of great value in directing people to move in an orderly fashion in the event of a fire and in carrying out appropriate fire control measures until the public fire department arrives. These measures are, as described in the fire safety plan, developed in cooperation with the fire department. The supervisory staff referred to in this Section are assigned their responsibilities by the building owner, unless the public fire department is prepared to take on these responsibilities. Except in hospitals and nursing homes, it is not intended that supervisory staff should be in the building on a continuous basis, but that they should be available to fulfill their obligations as described in the fire safety plan on notification of a fire emergency. In hospitals and nursing homes, however, staff must be in the building at all times to assist occupants who are not capable of caring for themselves in an emergency.

A-2.8.2.1.(1)(a)(i) – Sounding the Fire Alarm

These procedures should also include training authorized personnel to silence fire alarm and alert signals under specified conditions. If special keys or devices are required to operate the alarm system, they should be readily available to supervisory staff on duty.

A-2.8.2.1.(1)(a)(iv) – Evacuating Occupants, including Special Provisions for Persons Requiring Assistance

Some occupants of a building may require special assistance during evacuation because cognitive or physical limitations make them unable to proceed independently to a place of safety. Fire safety for these persons will depend to a large extent on preplanning and on their awareness of the fire protection measures incorporated into the building. In some buildings, it may be appropriate to advise such occupants of these provisions by posted notices, handouts or other suitable means. In certain residential occupancies, such as hotels or motels, staff should be aware of rooms occupied by persons requiring special assistance during evacuation and should inform the responding fire department.

A-2.8.2.1.(1) – Inspection and Maintenance of building Facilities Provided for the Safety of Occupants

The fire safety plan may provide important information to the fire department for use in the preparation of plans for firefighting procedures in specific buildings. This is especially true for buildings where flammable or combustible liquids or other dangerous goods are stored.

The development of the fire safety plan for large retail occupancies, especially the bulk merchandising stores, should take into consideration various unique risk factors prevalent in these stores. A bulk merchandising store is characterized as a retail store in which the sales area includes the storage of material usually located in piles, on pallets or on racks up to 3.7 metres in storage height. These mercantile occupancies tend to store and display in the sales area, large quantities

of products ranging from compressed gas cylinders, oxidizers, flammable liquids, combustible liquids, foamed plastics, and combustible materials. Documented evidence of fires in these types of stores has shown that smoke obscuration occurs within 7.5 to 12 min from the inception of a fire. Prompt response by occupants in a fire emergency is therefore critical. Human behaviour studies have shown that occupants in a retail environment tend to delay evacuation for various reasons such as unfamiliarity with exits or a lack of visibility of exits, reluctance to leave check-out lines, and uncertainty about the events unfolding. The training and education of staff are crucial elements in clearly notifying and instructing occupants during an emergency. A reliable public address system should be an integral part of the fire safety plan.

Furthermore, although the Code does not address the use of mass notification systems, many organizations integrate them into their fire alarm and public address systems. Mass notification systems provide real-time notification and instructions to persons in a building or series of buildings, a campus, a community or similar areas using a series of voice communications, signals, and text or phone messages to communicate the appropriate actions and responses in the event of an emergency situation.

Where such systems are installed, the authority having jurisdiction should be consulted to ensure that the interconnection and cross-communication with other Code-prescribed life safety systems (e.g. fire alarm systems) is well coordinated and understood. The sequencing of events must be carefully prioritized to ensure that persons are not given instructions that are contrary to the life safety requirements of the Code.

Note that, where strobes are used in mass notification systems, consideration should be given to ensure that all strobes, including those for the fire alarm system, are synchronized. The fire safety plan should be commensurate with the known risks and address the concerns identified above.

A-2.8.2.8.(2) – Interruption of the Fire Alarm System

Interruption of normal automatic operation of the fire alarm system for periodic testing purposes constitutes a “temporary shutdown”. Appropriate alternative measures for informing building occupants and the fire department of a fire during a shutdown of a fire alarm system should be worked out in cooperation with the local fire department. The alternative measures decided upon should be recorded as part of the building fire safety plan.

A-2.8.3.1.(1) – Fire Drills

A fire safety plan is of little value if it is not reviewed periodically so that all supervisory staff remain familiar with their responsibilities. A fire drill, then, is at least a review of the fire safety plan by supervisory staff. The extent to which non-supervisory staff participate in a fire drill should be worked out in cooperation with the fire department. The

decision as to whether all occupants should leave the building during a fire drill should be based on the nature of the occupancy.

It may be necessary to hold additional fire drills outside normal working hours for the benefit of employees on afternoon or night shifts, who should be as familiar with fire drill procedures as those who work during the day. If full scale fire drills are not possible during non-regular working hours, arrangements should be made so that night-shift supervisory staff can participate in fire drills conducted during the daytime.

The Fire Safety Responsibilities of Building Owners is important to reduce or eliminate any risks associated with life safety. The information we provide is intended to give the tools to help educate owners/occupants of the requirements according to the applicable associated codes and standards. The Town of Morinville reserves the right to modify this document without notice.