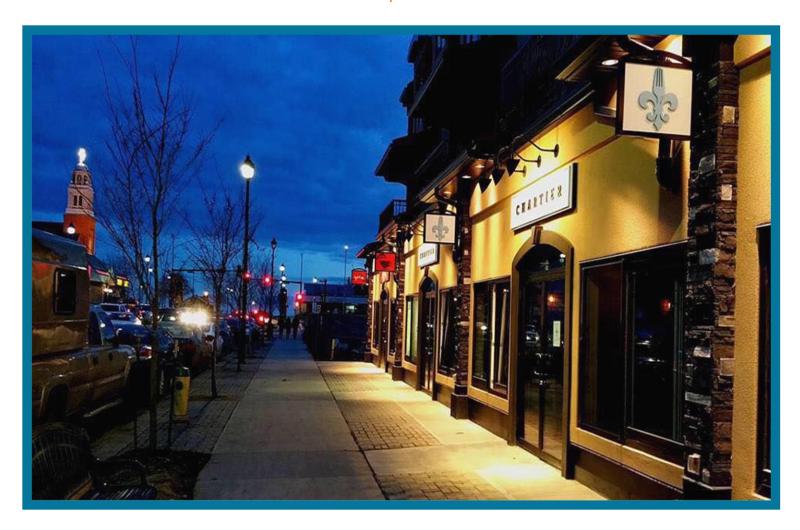
# National Fire Code-2019 Alberta Edition Reference Manual

Beaumont Fire Service | Fire Prevention Division



This manual is a standard guide for business owners, store managers and maintenance personnel to ensure occupant safety and compliance with the Alberta Fire Code within their establishments.





The following is a standard guide for business owners, store managers and maintenance personnel to ensure occupant safety and compliance with the National Fire Code - 2019 Alberta Edition (NFC 2019 AE) within their establishments.

Please follow this guide carefully as these items will be reviewed for compliance during required routine fire inspections conducted by Beaumont Fire Services.

## Code References

- All National Fire Code 2019 Alberta Edition (NFC 2019 AE) references are from Division B, unless noted otherwise.
- All National Building Code 2019 Alberta Edition (NBC 2019 AE) references are from Division B, unless noted otherwise.
- All National Fire Protection Association (NFPA) codes are referenced in the National Fire Code - 2019 Alberta Edition (NFC 2019 AE).
- Records of tests, inspections, maintenance or operational procedures required under the NFC 2019 AE shall be kept on the premise for a minimum of two years for examination by the Authority Having Jurisdiction (AHJ). (NFC 2019 AE, Division C, 2.2.1.2 (4))

#### Address

 The street address of a development shall be clearly visible from the street with a minimum font size of 20cm. (COB land use bylaw)

## Fire Department Access

 Fire department access to buildings and laneways must always be maintained for fire department vehicles. (NFC 2019 AE 2.5.1.5)

## Fire Department Building Access

- Buildings with fixed emergency life systems (fire alarm system, sprinkler system), elevator control, and door access must install a fire department key-box.
- Once this box is installed, contact the Beaumont Fire Prevention Department (780-929-6185) to coordinate locking these keys inside the key-box. (NFC 2019 AE 2.5.1.3)

#### Private Fire Hydrants

- Private fire hydrants must be inspected, tested and maintained annually.
- A two-meter clearance must be maintained around the front side and one-meter clearance on the rear of the hydrant.
- Snow and ice shall be removed at regular intervals. (NFC 2019 AE 6.4.1.1)

## Fire Department Connection

 Fire department connections for sprinkler and standpipe systems shall be kept free of obstructions; this includes storage of combustible materials and parking of vehicles.

(NFC 2019 AE 2.5.1.4 (1))





# Fire Alarm System

- Fire alarm systems must always be maintained in an operable condition. Maintenance personnel, property managers, or a representative of the owner shall conduct a visual inspection of the fire alarm panel daily to ensure the system is operational.
  - (NFC 2019 AE6.3.1.1)
- Fire alarm systems shall be maintained, inspected and tested annually by a qualified & permitted fire alarm company.
- If the fire alarm system is independent (internal with no monitoring service), permanent signage shall be posted above all manual fire alarm pull stations with directions to phone 9-1-1 in case of emergency. (NFC 2019 AE 2.8.2.7)
- If the fire alarm system is monitored by a certified monitoring company, a ULC certificate shall be posted at the main fire alarm panel. (NFPA 72)

# Sprinkler Systems

- Sprinkler and standpipe systems shall always be maintained in an operable condition.
- Doors to rooms containing sprinkler control valves shall includesignage indicating "Sprinkler Control Room".
- All valves and components for fire sprinkler systems shall be maintained free of obstructions. (NFC 2019 AE 6.4.1.1)
- Storage shall not interfere with fire sprinkler head discharge; a 450mm (18inch) clearance is required from fire sprinkler head deflectors to top of storage arrangements. (NFPA 13)

## **Exit Lights**

 All exit lights and exit signs shall be illuminated when the building is occupied. (NFC 2019 AE2.7.3.1)

## Fire Extinguishers

- For low-hazard areas (office and retail spaces), at least one 2A:10BC or largerfire extinguishershall be available and to which there is a maximum travel distance of 25m.
- Higherhazardareas, such as repairgarages, shall have fire extinguishers with minimum ratings and travel distances as per NFPA 10.
- Fire extinguishers shall be serviced and tagged annually by a certified fire extinguisher company. (NFC 2019 AE 6.2.1.1)
- Fire extinguishers shall be located near exits or access to exits. They shall be mounted on a wall with the handle height between 900-1500mm. (NFPA10)

# **Emergency Lights**

 Emergency lights, where required by the Alberta Building Code, shall be maintained in operable condition and tested annually.

(NFC 2019 AE 2.7.3.1)

# Fire Separation & Smoke Control

- Any penetration or damage to fire rated walls and ceilingsshall be repaired to maintain the integrity of the fire separation.
- Mechanical penetrations through fire separations shall be sealed using a ULC approved fire-stopping method. (NFC 2019 AE 2.2.1.2)
- Any replacement or removal of doors shall meet or exceed the minimum rating of the fire separation on which they are installed.

(NFC 2019 AE 2.2.2.1)

 Fire rated doors shall not be blocked, wedged open, or altered and self-closing devices shall be maintained in operable condition.

(NFC 2019 AE 2.2.2.4)





## Housekeeping & Storage

- Rooms containing any building services (including: furnace, mechanical and electrical rooms), shall not be used for storage.
- Combustible storage shall not accumulate in exit stairwells, in a means of egress or in front of exits. (NFC 2019 AE 2.4.1.1)

## Commercial Kitchen System

- Any kitchen activities producing smoke and greaseladen vapors shall be equipped with a commercial exhaust and fire suppression system.
  (NBC 2019 AE 3.3.1.2 (2))
- Commercial cooking exhaust systems must be cleaned semi-annually by a certified company. (NFPA 96)
- Filters on commercial cooking exhaust systems shall remain installed when cooking and cleaned at regular intervals. (NFC 2019 AE 2.6.1.9)
- A listed class 'K' extinguisher shall be installed where in close proximity of deep fat fryers. (NFPA 96)

#### Electrical

- All electrical wiring shall be installed and maintained as to not constitute an undue fire hazard. (NFC 2019 AE 2.4.7.1)
- A one-meter clearance to combustible materials from electrical panels shall be maintained.
- Electrical rooms shall not be used for storage. (NFC 2019 AE 2.4.1.1)

#### **Exits**

- Exit doors shall open in the direction of travel, and open easily (NFC 2019 AE 2.7.2.1(5))
- Exit doors must always be clearly visible and free of storage accumulation. (NFC 2019 AE2.4.1.1)
- The exterior of all exit doors shall also be free of storage and accumulation of snow and ice.
- All locking, latching or other fastening devices on exit doors must permit the door to be readily opened from the inside requiring no keys, special devices, or specialized knowledge of the door opening mechanism.

(NBC 2019 AE3.4.6.16)

## Above Ground Storage Tanks

 All fuel storage tanks greater than 2 500 L capacity require permits from the Fire Prevention Branch and under certain circumstances, registration with the Petroleum Tank Management Association of Alberta (PTMAA).

Please note -- the requirements listed above are general NFC 2019 AE requirements. Depending on your type of business and occupancy classification, further requirements may apply at the time of your fire inspection.





# Frequently Asked Questions:

## What is the fire inspector looking for during an inspection?

The purpose of a fire inspection to ensure that your building is equipped for a fire emergency. This means all emergency and fire protection safety measures in place are fully operational.

A few things an inspector may check include your building's fire sprinkler system, electrical outlets, storage of hazardous materials, number of portable fire extinguishers, and the clearance of the entrance and exit to your building.

Blocked exits, overloaded electrical outlets, insufficient extinguishers for the size of your building, or missing emergency signage would be a few examples of red flags during a fire inspection.

#### How can I prepare for a fire inspection?

Prepare for your fire inspection in advance by using the preinspection checklist. Some important things to remember:

- Correct any violations before the Fire Inspector arrives.
- Identify any known fire hazards and take action to correct these hazards.
- Gather all required documentation.
- Schedule inspection of your fire protection systems and electrical system if you've missed regular maintenance inspections.
- Make repairs of fire protection systems/electrical issues as needed.

#### Common fire code violations

While violations will vary by building type, location, and more, there are some common fire code violations to watch out for. These include:

- Using an extension cord as permanent wiring vs temporary usage
- Blocked sprinkler heads/nozzles
- Blocked exits
- Exposed electrical wiring
- Outdated or damaged portable fire extinguishers and/or smoke alarms
- Address number not properly displayed

#### Documentation

During your fire inspection, the Safety Codes Officer will review your Fire Safety Plan and Fire Protection Reports from a qualified agency.

#### Fire protection reports include:

- Fire alarms
- Sprinkler systems (includes standpipe and backflow)
- Special suppression systems (clean agent/dry chemical)
- Commercial kitchen suppression
- Commercial kitchen exhaust
- Fire extinguishers
- Emergency lights
- Emergency generators
- Rolling fire doors
- Fire pumps
- Private fire hydrants

#### All fire protection reports must include:

- Inspection standards (eg. NFPA, CAN-ULC)
- Standard reference year as described in the Fire Code
- Technicians name and signature
- Technicians certification number (if applicable)
- Deficiencies requiring action

You may send any reports or documentation to the Fire Prevention Officer prior to your inspection for review at BFDinfo@beaumont.ab.ca

#### How do I create a Fire Safety Plan?

Please refer to the Fire Safety Plan Guide and Template to assist you with creating a site-specific Fire Safety Plan for your business. You can contact the Beaumont Fire Services Fire Prevention Officer at <a href="mailto:carley.krahn@beaumont.ab.ca">carley.krahn@beaumont.ab.ca</a> for more information.

#### How do I book an inspection?

Contact Fire Prevention at 780-929-6185 or BFDinfo@beaumont.ab.ca

