







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

The Westlock Fire Department has prepared this pamphlet 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 Westlock. For a complete list of requirements see the National Fire Code, 2019 Alberta Edition — also referred to below as NFC(AE).

For additional information, including who is qualified to install

and maintain life safety equipment in Westlock, please contact the Fire Chief at 780-350-2114.

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.

Responsibilities as identified in the NFC(AE)

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.

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

- 1) Where this Code requires that plans be provided, or that tests, inspections, maintenance or operational procedures be performed, records shall be made and the original or a copy shall be retained at the premises for examination by the authority having jurisdiction.
- 2) The initial verification or test reports for each system shall be retained throughout the life of the systems.

Definitions

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.

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

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.

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*.

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.

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.

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 <u>defect</u> or <u>deficiency</u> 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	NFC(AE)
Exit Lights – CHECK to ensure they are illuminated and in good repair	2.7.3.1
Exit Signs – CHECK to ensure they are clean, legible, and illuminated where powered	2.7.3.1
Fire Alarm System – CHECK for trouble on primary or remote trouble indicators as per CAN/ULC S536-13 5.1	6.3.1.2
Fire Alarm System – CHECK status of primary power "on" or equivalent indicator as per CAN/ULC S536-13 5.1	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)	2.2.2.4
Signal Transmission – 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.	6.3.1.5
Torches, Regulators and Welding Equipment – CHECK for leakage and defects	5.2.2.2
Weekly	NFC(AE)
Emergency Generator Systems – INSPECT, TEST and MAINTAIN as per CAN/CSA C282-15 Table #2	6.5.1.1 *
Emergency Generator Systems in Health Care Facilities – INSPECT, TEST and MAINTAIN as per CAN/CSA C282-15 Table #3	6.5.1.1 *
Hoods, Ducts and Filters in Ventilation Systems - INSPECT for accumulation of combustible deposits and clean as required	2.6.1.3

Monthly	NFC(AE)
Emergency Generator Systems – INSPECT, TEST and MAINTAIN as per CAN/CSA C282-15 Table #3	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	2.7.3.1.(3) 6.5.1.6
Exhaust Systems including Hoods, Grease Removal Devices, Fans and Ducts on Commercial Equipment used in <u>Solid Fuel</u> <u>Cooking Operations</u> – INSPECT and CLEAN as per NFPA 96-2017	2.6.1.9 *
Exit Doors – TEST all doors forming a part of a means of egress to ensure they are operable	2.7.2.1.(1)
Exit Signs with Battery Back-up – INSPECT to ensure visibility upon failure of the primary power supply	6.5.1.8.(2)(a)
Fire Alarm System – INSPECT and TEST on emergency power supply to confirm operability of fire alarm system as per CAN/ULC-S536-13	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)	2.2.2.4.(3)
Fire Safety Measures in <u>Daycares</u> – INSPECT in conformance with fire safety plan for fire prevention	2.10.4
Portable Fire Extinguishers – INSPECT and sign monthly tag area as per NFPA 10-2013 7.2.2	6.2.1.1 *
Voice Communication System – 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	NFC(AE)
Exhaust Systems including Hoods, Grease Removal Devices, Fans and Ducts on Commercial Equipment used in <u>24-hour</u> <u>Cooking, Charbroiling, Wok Cooking</u> – INSPECT and CLEAN as per NFPA 96-2017	2.6.1.9 *
Fire Emergency Systems in High Buildings as defined by Subsection 3.2.6 of the Building Code – TEST, OPERATE and MAINTAIN as per NFC(AE) Part 7	7.1.1.2 *

Every 6 Months	NFC(AE)
Emergency Generator Systems – INSPECT, TEST and MAINTAIN as per CAN/CSA C282-15 Table #4	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	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 of the report to the AHJ	2.15 *
Fire-Protection System for Commercial Cooking Equipment – INSPECT and MAINTAIN as per NFPA 96-2017 11.2	2.6.1.9 *
Special Fire Suppression Systems – TEST, INSPECT and MAINTAIN systems as per the appropriate NFPA code as per NFC(AE) Div. B, Article 2.1.3.5	6.6.1.1 *
Annually	NFC(AE)
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	7.2.2.1.(3)
Chimney Spark Arrestors – INSPECT, CLEAN and repair burnt-out arrestors	2.6.2.3
Chimneys, Flues and Flue Pipes – INSPECT	2.6.1.4.(1)
Doors (Revolving) – TEST safety features	2.7.2.1.(2)
Doors (Sliding) – TEST sliding doors that are required to swing on their vertical axis in the direction of egress when pressure is applied	2.7.2.1.(3)
Doors with Electromagnetic Locks – TEST to ensure they work properly	2.7.2.1.(4)
Emergency Generator Systems – INSPECT, TEST and MAINTAIN as per CAN/CSA C282-15 Table #5	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	6.5.1.6 *
Emergency Lights where not covered by Article 6.5.1.6 – INSPECT to ensure that they are functional	6.5.1.7

Exhaust Systems for Commercial Cooking Equipment installed in <u>Churches, Day Camps,</u> <u>Seasonal Businesses or Senior Centers</u> including Hoods, Grease Removal Devices, Fans and Ducts – <u>INSPECT</u> and <u>CLEAN</u> as per NFPA 96-2017	2.6.1.9 *
Exit Signs – INSPECT to ensure visibility upon failure of the primary power supply	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	6.5.1.8.(2)(b)
Fire Alarm System – INSPECT and TEST the system as per CAN/ULC S536-13 by qualified personnel acceptable to AHJ	6.3.1.2 *
Fire Dampers, Smoke Dampers and Fire Stop Flaps – INSPECT and TEST as per NFPA 80-2013	2.2.2.4
Fire Extinguishers – INSPECT, TEST and MAINTAIN as per NFPA 10-2013 by qualified personnel acceptable to the AHJ	6.2.1.1 *
Fire Safety Plan – REVIEW for changes in use and other characteristics of the building	2.8.2.1.(2)
Mechanical Air-Conditioning and Ventilating Systems, Exhaust and Make-up Air Systems – TEST system initiating devices (CO/N2O detectors) in enclosed parkades; OPERATE disconnect switches	2.6.1.6.(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)	6.3.1.2.(4)
Voice Communication System - TEST the system as per NFC(AE) by qualified personnel acceptable to the AHJ	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 as required by NFPA 25-2017, the appropriate NFPA or CAN/ULC document referenced in the NFC(AE)	6.4.1.1 *

Every 2 Years	NFC(AE)
Smoke Control Measures in High Buildings – TEST pressurized building systems in different seasons as per NFC(AE)	Section 7.3 *
Every 3 Years	NFC(AE)
Fire Extinguishers – REPLACE premixed agent in liquid charge-type AFFF and FFFP extinguishers as per NFPA 10-2013 7.7.2.3	6.2.1.1. *
Every 5 Years	NFC(AE)
Emergency Generator Systems – INSPECT, TEST and MAINTAIN as per CAN/CSA C282-15 Table #6	6.5.1.1 *
Fire Extinguishers – Hydrostatically TEST at 5 years of age as required by NFPA 10-2013 Table 8.3.1	6.2.1.1 *
Every 6 Years	NFC(AE)
Fire Extinguishers – REPLACE the extinguishing agent in stored-pressure fire extinguishers as per NFPA 10-2013 7.3.6	6.2.1.1 *
Every 12 Years	NFC(AE)
Fire Extinguishers – Hydrostatically TEST at 12 years of age as required by NFPA 10-2013 Table 8.3.1	6.2.1.1 *
As Required	NFC(AE)
Access Panels and Windows – MAINTAIN free of obstruction where provided to facilitate access for firefighting operations	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)	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	2.2.2.4
Closures – Repair where damaged to MAINTAIN the integrity of their fire-protection rating	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	2.4.1.1
Door Release Hardware, Latches and Locks – MAINTAIN in good working condition at all times	2.7.2.1.(6)
Electrical Installations – Use and MAINTAIN so as to not constitute an undue fire hazard	2.4.7.1

Exterior Passageways and Exit Stairs – MAINTAIN free of snow and ice accumulations; MAINTAIN equipment used to melt snow or ice	2.7.1.7
Fire Department Access – ENSURE streets, yards and roadways that are provided for fire department access are kept clear	2.5.1.5
Fire Department Connections – MAINTAIN free of obstructions at all times	2.5.1.4
Fire Separations – Repair where damaged to MAINTAIN the integrity of the fire separation	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	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	2.6.1.6.(1)
Laundry Equipment – CHECK and empty lint traps to prevent lint from accumulating	2.4.1.4
Means of Egress – MAINTAIN in good repair and free of obstructions	2.7.1.6
As Required for Hazardous Processes and Operations	NFC(AE)
Dipping and Coating Processes – MAINTAIN as per NFPA 34-2016	5.4.6.2
Dust-Producing Operations – MAINTAIN (by cleaning) building and machinery of any combustible dust produced	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	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	5.4.5.2
Holding of Fire Drills – Subsection 2.8.3	Frequency
Retain written records per NFC(AE) Division	C, Article 2.2.1.2
For supervisory staff in daycare centers and Group B major occupancies (health care)	Monthly
For schools attended by children, total	3x in Fall
evacuation drills must be conducted	term 3x in
For supervisory staff in High Buildings as per NBC(AE) Div. B Subsection 3.2.6	Every 2 months
For supervisory staff in laboratories	Every 3 months
For supervisory staff in all other buildings	Annually

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 requirements for these systems. Consult the appropriate NFPA standard for a complete list of requirements.

Daily	NFPA 25
Automatic Tank Fill Valve – INSPECT enclosures during cold weather	13.4.3.1.1
Water Storage Tank – INSPECT heating systems for tanks without supervised low temperature alarm	9.2.2.2
Water-Based Fire Protection Systems including Valve Enclosures - INSPECT for appropriate heat during cold weather	NFPA 25
Weekly	NFPA 25
Common Components and Valves – INSPECT backflow prevention assemblies, sealed control valves, gauges	Chapter 13
Common Components and Valves – TEST fire pump casing and pressure-relief valves	Chapter 13
Fire Pump – INSPECT diesel and electric systems, pump, pump house/room, steam pump system	8.2.2
Fire Pump – TEST diesel engine-driven fire pump	8.3.1.1
Foam-Water Sprinkler System – INSPECT control valves	Chapter 13
Water Storage Tank – INSPECT heating systems for tanks with supervised low temperature alarm connected to constantly attended location	9.2.2.1
Water Storage Tank – INSPECT unsupervised temperature alarms	9.2.4.3
Water Storage Tank – INSPECT water temperature for tanks without supervised low-temperature alarms	9.2.4.3
Monthly	NFPA 25
Automatic Tank Fill Valve – INSPECT exterior	13.4.3.1.3
Common Components and Valves – INSPECT locked or supervised control valves	Chapter 13

Foam-Water Sprinkler System – INSPECT	11.2.4
discharge device location, position and all	11.2.8
proportioning system(s); MAINTAIN foam	11.4.6.1
concentrate pump operation	_
Sprinkler System – INSPECT gauges on dry and preaction systems	Chapter 13
Water Storage Tank – INSPECT air pressure on tanks without a supervised air pressure source	9.2.2.2
Water Storage Tank – INSPECT supervised temperature alarms	9.2.3.2
Water Storage Tank – INSPECT water level for unsupervised tanks	9.2.1.2
Water Storage Tank – INSPECT water temperature for tanks with supervised low temperature alarms	9.2.4.2
Water Storage Tank – TEST high temperature limit switches, low water temperature alarms	9.3.3 9.3.4
Quarterly	NFPA 25
Common Components and Valves – INSPECT	
fire department connections, pressure- reducing and relief valves for sprinkler systems, supervisory signal devices, hose valves	13.8.1 13.5.1.1 13.2.8.1 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	13.4.5.2 13.4.3.2.10 13.2.6
Fire Pump – TEST fuel tank, float switch, and supervisory signal for interstitial space	8.1.1.2.7
Foam-Water Sprinkler System – INSPECT drainage in system area, INSPECT and MAINTAIN foam concentrate strainer(s)	11.2.7 11.2.6.4 Section 11.4
Private Fire Service Main – INSPECT hose houses	7.2.2.7
Sprinkler System – INSPECT gauges for wet and deluge systems	Chapter 13
Sprinkler System – INSPECT supervisory signal devices, valve supervisory switches, waterflow alarm devices	5.2.4
Sprinkler System – TEST waterflow alarm devices (mechanical)	5.3.2.1
Water Spray Fixed System – INSPECT drainage	10.2.7
Water Spray Fixed System – OPERATE and TEST waterflow alarm	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	9.2.2.1 9.2.4 9.2.1.1

Water-Based Fire Protection Systems, continued

Semi-Annually	NFPA 25
Common Components and Valves – INSPECT	13.3.2.1.3
valve supervisory signal initiating devices	13.3.2.1.3
Fire Pump – TEST diesel fuel	8.3.4
Private Fire Service Main – INSPECT monitor	7.2.2.6
nozzles	7.2.2.0
Sprinkler System – TEST waterflow alarm	5.3.2.2
devices (vane and pressures switch type)	3.3.2.2
Water Storage Tank – TEST water level alarms	9.3.5
Annually	NFPA 25
Retain written records per NFC(AE) Division	C, Article 2.2.1.2
Automatic Tank Fill Valve – INSPECT interior,	13.4.3.1.4
TEST valve	9.5.3
Common Components and Valves – INSPECT,	Day T-1-1-
TEST and MAINTAIN	Per Table 13.1.1.2
Fire Pump – INSPECT, TEST and MAINTAIN	Per Table
Foam-Water Sprinkler System – INSPECT, TEST	Day T-1-1-
and MAINTAIN	Per Table 11.1.1.2
Private Fire Service Main – MAINTAIN hose	7.2.2
houses, hydrants, mainline strainers, monitor	7.4
nozzles	7.4
Private Fire Service Main – TEST hydrant and	7.3
monitor nozzle flow	7.10
Private Fire Service Main – INSPECT hydrants,	7.2.2
mainline strainers, exposed piping	
Sprinkler System – INSPECT, TEST and	Per Table
MAINTAIN	5.1.1.2
Standpipe and Hose System – INSPECT, TEST and MAINTAIN	Per Table
	6.1.1.2
Water Spray Fixed System – INSPECT, TEST and MAINTAIN	Per Table
Water Storage Tank – INSPECT, TEST and	10.1.1.2
MAINTAIN	Per Table
Every 3 Years	9.1.1.2 NFPA 25
Water Storage Tank – INSPECT steel tanks	- MITA 25
without corrosion protection	9.2.5.1.1
Every 5 Years	NFPA 25
Automatic Tank Fill Valve – INSPECT strainers,	
filters, orifices (inspect/clean)	13.4.1.2
Common Components and Valves – INSPECT,	
TEST and MAINTAIN	Per Table
Foam-Water Sprinkler System – INSPECT, TEST	13.1.1.2
and MAINTAIN	Per Table 11.1.1.2
	11.1.1.2

Private Fire Service Main – TEST exposed and underground piping for flow	7.3.1
Sprinkler System – TEST gauges, extra high	Chapter 13
temperature solder-type sprinklers, sprinklers	5.3.1.1.1
in harsh environments	
Sprinkler System – TEST sprinklers >75 years	5.3.1 **
Standpipe and Hose Systems – TEST flow,	6.3.1
hydrostatic, and as per NFPA 1962, hose	6.3.2
Water Spray Fixed System – MAINTAIN	10.2.1
strainers (baskets/screens)	A.10.2.6
Water Storage Tank – INSPECT interior (all	9.2.5.1.2
other tanks), TEST level indicator, pressure	9.3.1
gauges	Chapter 13
0 0	· ·
Every 10 Years	NFPA 25
	NFPA 25
Every 10 Years Foam-Water Sprinkler System with Bladder Tank Type – MAINTAIN foam concentrate tanks with hydrostatic TEST or as required by	
Every 10 Years Foam-Water Sprinkler System with Bladder Tank Type – MAINTAIN foam concentrate tanks with hydrostatic TEST or as required by Table 11.1.1.2	11.4
Every 10 Years Foam-Water Sprinkler System with Bladder Tank Type – MAINTAIN foam concentrate tanks with hydrostatic TEST or as required by Table 11.1.1.2 Sprinkler System – TEST dry sprinklers Sprinkler System – TEST fast-response	11.4 5.3.1 **
Every 10 Years Foam-Water Sprinkler System with Bladder Tank Type – MAINTAIN foam concentrate tanks with hydrostatic TEST or as required by Table 11.1.1.2 Sprinkler System – TEST dry sprinklers Sprinkler System – TEST fast-response sprinklers >20 years	11.4 5.3.1 ** 5.3.1 **
Foam-Water Sprinkler System with Bladder Tank Type – MAINTAIN foam concentrate tanks with hydrostatic TEST or as required by Table 11.1.1.2 Sprinkler System – TEST dry sprinklers Sprinkler System – TEST fast-response sprinklers >20 years Sprinkler System – TEST sprinklers >50 years At 20 Years Sprinkler System – TEST fast-response	11.4 5.3.1 ** 5.3.1 ** 5.3.1 **
Every 10 Years Foam-Water Sprinkler System with Bladder Tank Type – MAINTAIN foam concentrate tanks with hydrostatic TEST or as required by Table 11.1.1.2 Sprinkler System – TEST dry sprinklers Sprinkler System – TEST fast-response sprinklers >20 years Sprinkler System – TEST sprinklers >50 years At 20 Years Sprinkler System – TEST fast-response sprinklers	11.4 5.3.1 ** 5.3.1 ** 5.3.1 ** NFPA 25 5.3.1 **
Every 10 Years Foam-Water Sprinkler System with Bladder Tank Type – MAINTAIN foam concentrate tanks with hydrostatic TEST or as required by Table 11.1.1.2 Sprinkler System – TEST dry sprinklers Sprinkler System – TEST fast-response sprinklers >20 years Sprinkler System – TEST sprinklers >50 years At 20 Years Sprinkler System – TEST fast-response sprinklers	11.4 5.3.1 ** 5.3.1 ** 5.3.1 ** NFPA 25 5.3.1 **
Every 10 Years Foam-Water Sprinkler System with Bladder Tank Type – MAINTAIN foam concentrate tanks with hydrostatic TEST or as required by Table 11.1.1.2 Sprinkler System – TEST dry sprinklers Sprinkler System – TEST fast-response sprinklers >20 years Sprinkler System – TEST sprinklers >50 years At 20 Years Sprinkler System – TEST fast-response sprinklers Sprinkler System – TEST fast-response sprinklers At 50 Years Sprinkler System – TEST sprinklers	11.4 5.3.1 ** 5.3.1 ** 5.3.1 ** NFPA 25 5.3.1 ** NFPA 25-2017 5.3.1 **
Every 10 Years Foam-Water Sprinkler System with Bladder Tank Type – MAINTAIN foam concentrate tanks with hydrostatic TEST or as required by Table 11.1.1.2 Sprinkler System – TEST dry sprinklers Sprinkler System – TEST fast-response sprinklers >20 years Sprinkler System – TEST sprinklers >50 years At 20 Years Sprinkler System – TEST fast-response sprinklers	11.4 5.3.1 ** 5.3.1 ** 5.3.1 ** NFPA 25 5.3.1 **

^{**} 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.

Systems Not Mentioned Here

For Water Mist Systems see NFPA 25, Chapter 12.

Section 2.8 - Emergency Planning

The building owner is responsible for preparing a fire safety plan, acceptable to the Westlock 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, 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.

Emergency Planning, continued

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 signaling box requesting that the fire department be notified, and including 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 meters 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 behavior 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.

For more information on your responsibilities for Fire Safety as a Building owner, please contact the Town of Westlock Fire Department at: 780-350-2114