



Cannabis Guidelines

Lacombe County's Guide
to Cannabis Retail &
Cannabis Processing Facilities

APRIL 2019

LACOMBE
COUNTY

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Purpose

The purpose of this guide is to provide information to applicants, operators, and business owners on the relevant regulations concerning operating cannabis retail stores and cannabis production facilities within Lacombe County. This guide is not a complete set of rules for operating these facilities and meeting the requirements outlined may not provide complete conformance with the various acts and regulations that apply to this industry.

Scope

The information contained within the *Cannabis Guidelines* is provided to assist members of the cannabis industry with applicable fire code requirements and best practices as they relate to the growing and sale of cannabis. This document was developed by a coalition group, comprised of members who reviewed the applicable requirements in the 2014 Alberta Fire Code (AFC) as well as other applicable codes and standards that apply to the cannabis industry.

Conformance to Regulations & Bylaws

Lacombe County Fire Service is the Authority Having Jurisdiction (AHJ) under the *Safety Codes Act* in applying the AFC. Although this guideline addresses the AFC regulations, there are numerous other acts and regulations which are complementary to the AFC, and must also be adhered to. It is important to acknowledge and review these regulations to ensure compliance with them, and they include:

- Alberta Fire Code (AFC)
- Safety Codes Act* (SCA)
- Alberta Building Code (ABC)
- Canadian Electrical Code (CEC)
- National Plumbing Code (NPC)
- Lacombe County Land Use Bylaw* (LUB)
- Alberta Occupational Health and Safety Act* (OH&S Act)

Required Permits

Cannabis retail stores and cannabis production facilities operating within Lacombe County are required to obtain the following permits:

- Lacombe County Development Permit
- All pertinent Building and/or Trade Permit(s) - HVAC/Plumbing & Gas/Electric (if applicable)
- Certificate of Occupancy (Final Building Inspection)
- Health Canada Licence
- Alberta Gaming, Liquor and Cannabis (AGLC) Licence

FOR MORE INFORMATION

Questions and Inquiries about this document should be forward to Lacombe County Fire Service at LCFS@lacombecounty.com or 403-782-8959



General Alberta Fire Code Requirements

Building Occupant and Fire Safety

The *Fire Safety Plan* is an integral part of the occupancy safety and as such is a mandatory requirement. The below-listed sections will assist in creating the most comprehensive plan for your occupants.

Fire Planning for Cannabis Retail Stores

This section describes the method in developing a *Fire Safety Plan* regarding a mercantile occupancy.

LAND USE BYLAW - DEFINITION OF CANNABIS RETAIL

CANNABIS RETAIL means a retail business where cannabis and cannabis related products and accessories are displayed and sold; and which holds a provincial licence permitting the sale of cannabis from the Alberta, Gaming, Liquor and Cannabis.

A *Fire Safety Plan* conforming to the AFC shall be prepared in cooperation with the County's Fire Service and other applicable authorities and shall include:

The emergency procedures to be used in the case of fire including:

- Sounding the fire alarm;
- Notifying the fire department;
- Instructing occupants on procedures to be followed when the fire alarm sounds;
- Evacuating occupants, including special provisions for persons requiring assistance; and
- Confining, controlling and extinguishing the fire.

An integral part of the *Fire Safety Plan* is to designate supervisory staff to carry out fire safety duties. These staff members should be responsible for training employees in specific disciplines such as:

- Documents, including diagrams, showing the type, location and operation of the building fire emergency systems;
- The holding of fire drills;
- The control of fire hazards in the building; and

- The inspection and maintenance of building facilities provided for the safety of occupants.

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

According to SGI Canada, there are about 24,000 house fires each year, resulting in an average of 377 deaths and 3,048 injuries per year. 1 out of every 100 preventable fires is fatal. In these fatal preventable fires, the #1 ignition source is smoking materials, such as cigarettes. This information can easily translate to cannabis use. Considering a large portion of these fires are preventable, a well-developed *Fire Safety Plan* is paramount in reducing these statistics. For specific information on what your *Fire Safety Plan* shall contain, see AFC, Division B, Section 2.8.

Fire Planning for Cannabis Production Facilities

This section describes the method for creating a *Fire Safety Plan* regarding a cannabis production facility. These items, in addition to the mercantile requirements, shall be listed.

LAND USE BYLAW - DEFINITION OF CANNABIS PRODUCTION FACILITY

CANNABIS PRODUCTION FACILITY means a premises authorized by a licence issued by Health Canada and used for the production, cultivation, harvesting, processing (including the trimming, drying, and curing of raw materials), storage or distribution of cannabis or its by-products for commercial sale.

A *Fire Safety Plan* shall be prepared for areas where processes and operations that involve a risk from an explosion, high flammability or related conditions that create a hazard to life safety.

If your occupancy will be using or storing hazardous products or dangerous goods:

- Include the product classification
- Where the products are stored
- Where you can locate an up to date SDS "Safety Data Sheet" (updated every three (3) years)

Additionally:

- The location and identification of storage and use areas for specific hazardous products such as gases, pressurized vessels, dangerous goods, etc...
- The names, addresses and telephone numbers of persons to be contacted in the case of fire during non-operating hours

Similar to mercantile occupancies, the *Fire Safety Plan* for your cannabis occupancy holds the same weight, if not heavier. Considering the likelihood of stored hazardous material and compressed vessels, the dangers in the event of a fire are well elevated. According to National Fire Protection Association statistics, between the years of 2011 and 2015, fire departments responded to an average of 37,910 fires at industrial or manufacturing properties each year, with annual losses from these fires estimated at 16 civilian deaths, 273 civilian injuries and \$1.2 billion in direct property damage. A robust, well-planned *Fire Safety Plan* will reduce the amount of liability and increase reaction time during these emergencies.

For further specific information on the risk of explosion, high flammability or related conditions, see AFC, Division B, Section 4 Flammable and Combustible Liquids and Section 5 Hazardous Processes and Operations. Keep in mind that your industrial occupancy *Fire Safety Plan* must also conform to Section 2.8. Emergency Planning.

Occupancy Classification

Proper occupancy classification of cannabis production facilities and retail stores is essential to the proper application of ABC and AFC requirements as there are different requirements for the level of safety depending on the activities and materials within a building.

Occupant Egress and Exits

All egress routes and exits are to be maintained in accordance with Part 2 of the AFC such as to be identified, free of obstruction, and with fully functioning door release hardware. Care must be taken in the use of additional security control features. Security locking mechanisms must be compliant with the requirements of the ABC and AFC to ensure no delay in occupant egress, as outlined in the *Fire Safety Plan*.

Doors

Any door required for egress purposes shall be opened from the inside without requiring keys, special devices or specialized knowledge of the door opening mechanism. An example of this is the current Health Canada requirements for employee tracking in and out of growing rooms or product vaults. Generally, monitoring and door access is done through swipe card stations. Restricted access from the outside of the room or vault is permissible; however the door must be readily open-able from the interior.

Building Modifications

Building modification and alterations must be completed under a permit as required by the Building AHJ. Building modifications completed outside of the permit process may be identified during the inspection, and subject to orders or fines under the *Safety Codes Act*. Building owners are encouraged to keep a copy of approved permits on site for inspection/verification.



Fire Extinguishers

Portable fire extinguishers must be appropriate for the hazard and located in accordance with AFC requirements found in AFC B- 2.1.5.

Minimum recommended extinguisher size is 2A 10BC located appropriately:

- Near principle entries and exits
- Near a manual pull station
- Near a high hazard location
- In a conspicuous location

Keep in mind that all extinguishers must be appropriately tagged and maintained annually by a certified agency.

For specific information relating to fire extinguishers, you can reference NFPA 10 - Standard for Portable Fire Extinguishers, visit the website at www.nfpa.org for free access to the standard.

Hazardous Activities

Where a hazardous activity is not allowed for in the original design of the building or equipment that activity shall not be carried out unless written permission is obtained from the AHJ. Specifically, this includes the use of processing equipment that is not being used as intended by the manufacturer, or which lacks listing, or labeling indicating its designed purpose. These hazards will generally require professional involvement and proper design, and engineering documentation should be submitted to the AHJ at the development permit to minimize delays in operating. (See AFC B-2.1.2.2.)

Indoor and Outdoor Storage

Storage Limits

Storage limits for dangerous goods must be in accordance with AFC Div B, Part 3 this includes limits of certain materials, access/aisles throughout industrial occupancies, and outdoor storage of dangerous goods. These limits and their locations shall also be included in the *Fire Safety Plan*.

Flammable and Combustible Liquids

Ventilation and Explosion Control

Ventilation for facilities which include the storage or use of flammable and combustible liquids must conform to AFC Division B, Part 4.

All plans for ventilation and explosion control shall be submitted to the AHJ for approval before installation or modification. The submittal shall provide information adequate to describe the hazard and to demonstrate the safe performance of the system.

Material Handling, Storage and Dispensing

Handling, storage and dispensing of flammable and combustible liquids shall be in conformance with AFC Div B, Part 4. In addition to the scope of this section, a copy of the Safety Data Sheet (SDS) for each hazardous material on location.

Some items you should consider when handling, storing or dispensing hazardous materials:

- Properly trained employees will reduce the risk of injury or illness;
- Training in the proper usage of PPE, explicitly determined specifically by the material you're using;
- An accessible, up to date Safety Data Sheet for all employees to review before engaging in activities with hazardous materials;
- A well-developed *Fire Safety Plan*, regarding emergency procedures in the event of an emergency;
- A fire escape plan, posted conspicuously, showcasing areas where these materials may be stored; and
- Emergency phone numbers to call in the event of accidental ingestion
 - Alberta Health Services
 - Alberta Poison Control

Dangerous Goods

Storage, handling, and use of dangerous goods must be in conformance with the AFC Div B, Part 5, and applicable standards. Consider these items when dealing with any dangerous goods.

Quantities kept in the premises should be kept to a conservative amount

- An example would be, a supply necessary for normal operation.
- Consider emergencies, the lesser amount of hazardous materials present in the event of a fire significantly reduces risk to occupants and emergency responders alike.
- If you require additional quantities on site, consider isolating these additional amounts in a proper fire rated location, an effort to minimize risk during an emergency.

Ignition Sources

- Smoking inside is prohibited; however, proper signage throughout your facility is recommended.
- Unattended equipment using heat should be well isolated from any dangerous goods.
- If you require an ignition source that is an integral part of an operation, ensure you keep combustible materials isolated from the operation.

Containers

- Ensure containers used for dangerous goods are properly rated to the material, you can reference the AFC, Part 5 for further information on container storage.
- When transferring to other containers, be diligent in labeling the new containers correctly. You can refer to your SDS on appropriate labeling.
- Consider storing small containers in a rated flammable storage cabinet. Be sure to do your research and find a product that conforms with OH&S, NFPA, and ULC standards.

Compressed Gases

- Any compressed cylinder shall be properly secured when not in use. A chain fastened to the wall and appropriately sized to the cylinders is sufficient.
- Always keep the valves closed and the caps secured when not in use.
- Unsecured compressed cylinders can become projectiles when subjected to heat or damage.

Hazardous Processes and Operations

CO₂ Enrichment

Enriched growing atmospheres must conform to the *OH&S Act* with respect to workers' exposure to CO₂. Monitoring and alarm detection is required and must be detailed in the building *Fire Safety Plan* as per AFC 5.1.5.1. Exposure to atmospheres containing 10% or more carbon dioxide will result in increased respiration, headache, dizziness, buzzing in the ears, blood pressure increase, high pulse rate, nausea and eventually unconsciousness.

OH&S Permissible Exposure Limit (PEL) for carbon dioxide is 5000 ppm by volume (0.5 percent concentration). This limit is the recommended maximum concentration personnel can be exposed to in eight hours. Where the potential exists for exposure to carbon dioxide above the allowable limits, air monitoring devices and proper ventilation are recommended to maintain more than 19.5 percent oxygen and less than 5000 ppm (0.5 percent) carbon dioxide.

All storage and transfer equipment related to enrichment shall conform to Section 4.3. Tank Storage. The system shall also comply with Section 4.4. Leak Detection of Storage Tanks and Piping systems, to provide proper occupant safety, particularly regarding asphyxiation within the enriched area.

Extraction and Processing Equipment

The use of processing equipment that is not being used as intended by the manufacturer, or which lacks listing or labeling indicating its designed purpose is prohibited. Equipment not being used as designed by the manufacturer requires professional involvement as per AFC Division B, Part 2, proper design and engineering must be submitted to the AHJ.



These processes are highly sophisticated and should only be attempted in a proper facility by trained individuals. These facilities have robust building and fire safety requirements and for a good reason. Current research suggests:

- Following the legalization of medicinal marijuana in 2008, Colorado saw an increase in the number of hydrocarbon burns due to the extraction of hash oil from cannabis.
- Between January 1, 2008, and December 31, 2013, 19 cases of hydrocarbon burns were reported.
- In 2014, an additional 12 cases were reported in the first eight (8) months.

The average hospital stay to treat these burns was 10 days. 96% of the patients had upper extremity burns, while 68% of the people experienced burns to the head and neck. Butane extraction being the major contributor to the incidents regarding extraction injuries.

For further information regarding processing equipment, you can reference the AFC, Division B, Part 4.

Fumigation and Thermal Insecticidal Fogging

Lacombe County Fire Services must be notified before fumigation within cannabis production facilities as per AFC. Procedures for maintaining life-safety during fumigation processes shall be included in the *Fire Safety Plan*.

Certain occupancies will require the use of fumigation or fogging. Should you need these processes, consider these before engagement:

- Lacombe County Fire Services shall be notified of any process involving fumigation or fogging. Consider reserving some space in your *Fire Safety Plan* for this.
- Eliminate all sources of ignition to any part of the building where the process is ongoing.
- Disconnect electric power to the premises.
- Consider the fire alarm or sprinkler activation. Ensure the air temperature remains low to avoid these outcomes.
- Restrict access to the premises, post warning signs and have someone on duty at each entrance to prevent unwarranted entry.

For a comprehensive list of the approved pesticides from Health Canada, refer to the website: www.canada.ca

For specific information regarding fumigation and thermal insecticidal fogging, you can reference the AFC, Division B, Part 5.

Fire Protection & Detection Equipment

Installation Requirements

Installation requirements of specific equipment shall be based off occupancy grouping. Mercantile dispensaries either recreational or medicinal will be classified as a Group E Occupancy. Industrial growing, cultivating and processing will be deemed as either Group F Div 1, 2 or 3. Each will have their standard for fire protection requirements.

For information regarding specific fire protection and detection equipment, you can refer to the referenced documents at the end of this guide.

Inspection, Testing, and Maintenance Requirements (ITM)

All ITM requirements shall conform to the requirements of the AFC. The standard followed will be determined by the style of installation in your occupancy. A qualified journeyman shall install all required fire protection and detection equipment. All plans shall be forwarded to the AHJ before installation for review and approval.



Referenced Documents and Organizations

Alberta Fire Code
Alberta Building Code
Canadian Electrical Code
National Plumbing Code
Lacombe County Land Use Bylaw
Safety Codes Act
Alberta Occupational Health and Safety Act
AGLC - Retail Cannabis Store Handbook

NFPA 1 - Fire Code
NFPA 10 - Standard for Portable Fire Extinguishers
NFPA 12 - Standard on Carbon Dioxide Extinguishing Systems
NFPA 13 - Standard for the Installation of Sprinkler Systems
NFPA 14 - Standard for the Installation of Standpipe and Hose Systems
NFPA 30 - Flammable and Combustible Liquids Code
NFPA 55 - Compressed Gases and Cryogenic Fluids Code
NFPA 58 - Liquid Petroleum Gas Code
NFPA 68 - Explosion Prevention by Deflagration Venting
NFPA 69 - Standard on Explosion Prevention Systems
NFPA 72 - National Fire Alarm and Signaling Code
NFPA 91 - Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Particulate Solids

CAN/ULC-S524-06: Installation of Fire Alarm Systems
CAN/ULC-S536-13: Inspection and Testing of Fire Alarm Systems
CAN/ULC-S537-13: Verification of Fire Alarm Systems
CAN/ULC-S522 - Maintenance and Testing of Smoke Alarms
CSA C282 - Emergency Electrical Power Supply for Buildings

This document was adapted with permission from the City of Edmonton Fire Rescue – Cannabis Guidelines.

