



Cannabis playbook for authorities having jurisdiction

Helping deliver regulatory compliance to the
legal cannabis industry



Empowering Trust[®]

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Safety, security and sustainability in the legal cannabis industry: our expertise in addressing uncertainty in emerging markets

Since 1894, UL has helped enable the possibilities of the moment while looking ahead to safeguard the unknowns of tomorrow. As trusted partners who advance safety, sustainability and security, we help stakeholders build a better world.

We employ exacting scientific processes and the highest ethical principles to help create a better world. As safety challenges and concerns expand to include sustainability, well-being, connected technologies and security, we provide broad leadership, deep expertise and vital services to enable these transformations.

This holds true with the cannabis industry. UL was approached by regulators, fire fighters, suppliers, governments, cannabis companies and equipment manufacturers to help define the safety and security of cannabis growing and processing facilities. To advance our mission, we use our expertise and knowledge to help strengthen the safety, security and sustainability of the legal cannabis industry by delivering:

- Global conformity testing, inspection, audit, certification and verification services
- Creative solutions to help protect the environment, communities, workers and emergency responders
- Insightful educational and advisory services
- Innovative digital solutions to manage supply chain integrity and risk
- Rigorous and comprehensive technical guidance

The purpose of this guide is to demonstrate to authorities having jurisdiction (AHJs) and stakeholders tied to the legal cannabis industry how UL can assist stakeholders in delivering safe and secure business operations while adhering to local cannabis regulatory and code requirements.



Understanding the Canadian legislative framework for cannabis – A model

A brief history of cannabis legalization in Canada

In 1923 Canada added cannabis to the Confidential Restricted List under the Narcotics Drug Act Amendment Bill. In 2001, Health Canada moved to legalize cannabis for medical purposes with the Marihuana for Medical Purposes Regulations that was replaced in 2014 with the Access to Cannabis for Medical Purposes Regulations.

“In a survey conducted by the United Nations in 2011 it was revealed that 12.6% of the [Canadian] population, roughly 4.39 million adults, used cannabis at least once in the calendar year, while the estimate for those aged between 15 and 24 was 26.3%. Considering the massive size of the cannabis market, **prohibition has kept the drug industry illegal and, more importantly, deregulated.** This makes for risk-premiums that create a monopolized market with high barriers to entry, which in turn, leads to increases in violence, organized crime and the diversion of limited government resources to prosecuting drug users (i.e., non-violent crimes).”¹

Fast forward to April 2017, when a bill was proposed to legalize the use of recreational cannabis by individuals 18 and older. Provinces are permitted to further restrict possession, sale and use. In June 2018 the bill was passed and on October

17, 2018, adult recreational use of cannabis became federally legal in Canada. The Canadian Cannabis Act “creates a legal and regulatory framework for controlling the production, distribution, sale and possession of cannabis in Canada.”²

As expected, the use of cannabis for recreational purposes became legal across the country on that date, under the Cannabis Act. Persons aged 18 or older (dependent on province or territory regulations) can possess up to 30 grams of dried cannabis or “equivalent non-dried form” in public. In October 2019, “Cannabis 2.0” came into effect in Canada, legalizing additional cannabis-related products such as edibles, beverages, oils and creams. Giving adults legal access to a broader range of cannabis products helps achieve the government’s objective of displacing the illegal market and keeping profits out of the hands of criminals and organized crime.

Cannabis regulations in Canada touch many different parts of everyday life and provide rules around what’s allowed and what isn’t. Canada operates under a federated system, meaning that the federal government is in charge of some things, while other decisions are left to each individual province/territory or municipality.

Figure 1: Summary of roles and responsibilities related to cannabis

Federal	Provincial	Municipal
<ul style="list-style-type: none"> • Cannabis licensing • Criminal Law • Packaging, labelling, display, promotion • Health and safety requirements • Types of products allowed for sale • Law at the border • Seed-to-sale tracking • Minimum legislation for sale, age and distribution • Medical cannabis 	<ul style="list-style-type: none"> • Selecting type of distribution model • Licensing the distribution and retail sale • Issues of local concern, e.g., age limits, number of plants that an individual can possess, etc. • Workplace safety • Offences for youth possession • Home cultivation • Personal possession • Building, fire, electrical, etc. code development and implementation 	<ul style="list-style-type: none"> • Zoning by-laws • Retail locations • Nuisance concerns • Business licenses • Public consumption, i.e., Smoke Free Places Act and by-law enforcement • Enforcement • Code compliance, permits and inspections (in most jurisdictions)

¹ Legal Info Nova Scotia, “Cannabis in Canada: Municipal, Provincial & Federal Responsibilities”

² <https://www.legalinfo.org/legal-information-topics/cannabis-in-canada-municipal-provincial-federal-responsibilities>

¹ “The Economic Case for Marijuana Legalization in Canada”. Journal of Alternative Perspectives in the Social Sciences. 5 (1): 96–100. 1 December 2012.

Application of building construction and maintenance codes in Canada

Provinces and territories utilizing their constitutional responsibilities for public safety typically adopt editions of the Canadian Electrical Code (CEC), National Fire Code of Canada (NFCC) and National Building Code of Canada (NBCC). Some adopt other or additional standards.

These may be enforced by provincial/territorial ministries, provincial arms-length authorities or municipalities. Users of this guide should check with their local government to determine the AHJ and to confirm regulations and editions in force in their locations.



Support services for the legal cannabis industry

UL addresses uncertainty in emerging markets by providing a full suite of services including advisory services, testing, certification, inspection, audit and training to a wide variety of industries.

We now provide the legal cannabis market access to our comprehensive service portfolio across the entire supply chain. From horticultural lighting equipment to oil extraction equipment to building safety and security systems, UL provides safety services to inform and protect businesses. In addition, we continue to work with manufacturers to test and certify the products used in legal cannabis operations where safety and security is paramount.

In the following section we'll showcase the services that members of the legal cannabis supply chain can utilize to develop a safer and more secure operation. From facility audits to testing, inspection and certification of equipment used in cannabis facilities, these services can help you guide the legal cannabis industry to maintain compliance with cannabis regulations.

Cannabis Resources

Cannabis in Canada
<https://www.canada.ca/en/services/health/campaigns/cannabis.html>

Cannabis Act
<https://laws-lois.justice.gc.ca/eng/acts/C-24.5/>

Cannabis Regulations
<https://laws-lois.justice.gc.ca/eng/regulations/SOR-2018-144/>

Cannabis facility audit – providing safety and security insight to a legal cannabis operation

Our starting point is the cannabis facility audit. This program is based on the first Standard developed exclusively for the legal cannabis industry, CAN/ULC-S4400, the Standard for Safety of Premises, Buildings and Equipment Utilized for the Cultivation, Production and Processing of Cannabis. To read a free online version of the Standard, visit shopulstandards.com and search for S4400. You will need to create an account on the site if you haven't done so already.

The cannabis facility audit service helps businesses in the legal cannabis industry understand and navigate requirements associated with construction and operation of a cannabis facility. As the legal cannabis market matures, the rules of engagement, standards and regulations will continue to shift. As a result, so will an organization's ability to succeed.

Think of it as a single resource audit program to assist an operation by enabling safety and security compliance for a cannabis business!

Why will the facility audit help a legal cannabis or CBD operation?

It aims to help:

- Address knowledge gaps in the regulatory framework and to achieve compliance with S4400
- Document the compliance with legislated requirements and recognized standards
- Provide the public with peace of mind on facilities' conditions

Applicable standards for operating in the legal cannabis and CBD industry

Below is a list of available products or systems that may be found within a cannabis facility. We have listed the applicable standards to those products or systems as a resource for your use.

We have included the links to the guide information on the UL Product iQ™ database that relates to the listed Standards. The links also showcase companies and their products that have been certified by UL to applicable Standards.



To access the information in Product iQ, you will need to register and sign-in prior to reading the material. The website is free to use and can be accessed at ProductiQ.UL.com. When registering as an AHJ, you receive access to the advanced tools at no additional charge. These tools include access to letters confirming UL Certification, saving regularly used searches, and creating custom tags and groups to help you work more efficiently.

Product / system	Standard	Standard name or comments	Product IQ™ link to guide information	Additional information
Carbon dioxide extinguishing system	NFPA 12	Carbon Dioxide Extinguishing Systems	LINK	
Dry chemical extinguishing system	NFPA 17	Dry Chemical Extinguishing Systems	LINK	
Gaseous agent extinguishing system	NFPA 2001	Standard on Clean Agent Fire Extinguishing Systems	LINK	
Water spray fixed system	NFPA 15	Standard for Water Spray Fixed Systems	LINK	
Flammable gas/vapour detection system	CAN/ULC-S588	Standard For Gas and Vapour Detectors and Sensors, Including Accessories	LINK	
	CAN/CSA-C22.2 No. 60079-29-1:17, Explosive atmospheres – Part 29-1:	Gas detectors – Performance requirements of detectors for flammable gases		
Alarm and electronic security systems	CAN/ULC-S60839-11-1	Standard for Alarm and Electronic Security Systems – Part 11-1: Electronic Access Control Systems – System and Components Requirements	LINK	
	IEC-60839-11-2	Standard for Alarm and Electronic Security Systems – Part 11-2: Alarm and Electronic Security Systems – Part 11-2: Electronic Access Control Systems – Application Guidelines		
Automatic water fire sprinkler system	NFPA 13	Installation of Sprinkler Systems	LINK	
Blackout screens	CAN/ULC-S109	Standard Method for Flame Tests of Flame Resistance of Fabrics and Films	LINK	
Carbon dioxide and carbon monoxide detection system	CAN/ULC-S588	Standard for Gas and Vapour Detectors and Sensors, Including Accessories	LINK	
Combustible storage, use and handling	National Fire Code of Canada (NFCC) and National Building Code of Canada (NBCC)	Provincial and territorial regulations typically adopt an edition of the NFCC and NBCC. Verify the local regulations and code versions in effect.	NA	LINK
Compressed gas cylinder storage	National Fire Code of Canada (NFCC) and National Building Code of Canada (NBCC)	Provincial and territorial regulations typically adopt an edition of the NFCC and NBCC. Verify the local regulations and code versions in effect.	NA	LINK
Compressed or liquefied carbon dioxide Storage, installation, use and handling	NFPA 55 National Fire Code of Canada (NFCC)	Compressed Gases and Cryogenic Fluids Code	NA	LINK
Egress: exit door marking	National Building Code of Canada (NBCC)	Provincial and territorial regulations typically adopt an edition of the NFCC and NBCC. Verify the local regulations and code versions in effect.	NA	LINK

Product / system	Standard	Standard name or comments	Product iQ™ link to guide information	Additional information
Egress: means of egress	National Building Code of Canada	Provincial and territorial regulations typically adopt an edition of the NFCC and NBCC. Verify the local regulations and code versions in effect.	NA	LINK
Electrical equipment and devices	CSA C22.1	Canadian Electrical Code. Additional product standards and local electrical regulations may apply.	NA	LINK
Electronic security	UL 2900-2-3	Outline of Investigation for Software Cybersecurity for Network – Connectable Products, Part 2-3: Particular Requirements for Security and Life Safety Signaling Systems	LINK	
Emergency lighting	National Fire Code of Canada (NFCC) and National Building Code of Canada (NBCC)	Provincial and territorial regulations typically adopt an edition of the NFCC and NBCC. Verify the local regulations and code versions in effect.	NA	LINK
Extraction booths or pods (other than CO ₂ or nonhazardous)	UL/ULC1389 and CSA C22.1 (CEC)	Standard for Plant Oil Extraction Equipment for Installation and Use in Ordinary (Unclassified) Locations and Hazardous (Classified) Locations	LINK	
Extraction methods	ULC TG-44002	Safety of Cannabis Oil Extraction Processes	NA	LINK
Facility risk level	CAN/ULC-S4400 Part 3	Standard for Safety of Premises, Buildings and Equipment Utilized for the Cultivation, Processing and Production of Cannabis, Part 3	NA	LINK
Fire alarm installation (per NBCC)	CAN/ULC-S524	Standard for Installation of Fire Alarm Systems	NA	LINK
	CAN/ULC S537	Standard for Verification of Fire Alarm Systems		
Fire alarm maintenance (per NFCC)	CAN/ULC S536	Standard for Inspection, Testing and Maintenance of Fire Alarm Systems	NA	LINK
Flammable solvent (new or used) storage and use	National Fire Code of Canada (NFCC)	Provincial and territorial regulations typically adopt an edition of the NFCC and NBCC. Verify the local regulations and code versions in effect.	NA	LINK
Hazardous material storage, use and handling	National Fire Code Canada (NFCC)	Provincial and territorial regulations typically adopt an edition of the NFCC and NBCC. Verify the local regulations and code versions in effect.	NA	LINK
Horticultural lighting	UL 8800	Standard for Horticulture Lighting Equipment and Systems	LINK	
Intrusion alarm systems	CAN/ULC-S302	Standard for the Installation, Inspection and Testing of Intrusion Alarm Systems	LINK	
Intrusion detection system	CAN/ULC-S302	Standard for the Installation, Inspection and Testing of Intrusion Alarm Systems	LINK	
Monitoring Facility Requirements	CAN/ULC-S301	Standard for Security Signal Receiving Centres Configurations and Operations	LINK	
	CAN/ULC S561	Standard for Security Signal Receiving Centres Configurations and Operations		

Product / system	Standard	Standard name or comments	Product iQ™ link to guide information	Additional information
Moveable partitions or temporary walls	CAN/ULC-S102 or equivalent	Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies	LINK	
Odour control	UL 867	Electrostatic air cleaners	LINK	LINK
	UL 867A	Outline of Investigation for Commercial / Industrial Indoor Air Quality Systems, Ozone Generating Type		
	CSA 22.2 No. 187	Electrostatic air cleaners		
	UL 586	High efficiency particulate air filter		
Safety way guidance system	CAN/ULC-S590	Standard for Design, Installation, Inspection, Testing and Maintenance of Safety Way Guidance Systems	LINK	
Threat risk assessment	CAN/ULC-S4400	Standard for Safety of Premises, Buildings and Equipment Utilized for the Cultivation, Production and Processing of Cannabis	NA	LINK
	ANSI/ASIS/RIMS RA.1-2015	Risk Assessment Standard and Federal Cannabis Regulation, Directive on Physical Security Requirements for Controlled Substance and Drugs Containing Cannabis		Health Canada link related to Physical Security Measures requirement - LINK Risk Assessment Standard - LINK
Ventilation for indoor air quality	National Building Code of Canada (NBCC)	Provincial and territorial regulations typically adopt an edition of the NBCC. Verify the local regulations and code versions in effect. Also refer to environmental and occupational health and safety regulations.	NA	LINK
Video surveillance equipment, enclosures and mounting brackets	CAN/CSA C22.2 No. 62638-1,	Standard for Audio/video, information and communication technology equipment – Part 1: Safety requirements	NA	LINK
Video surveillance system	CAN/ULC-S316 or IEC 62676-4	Standard for Performance of Video Surveillance Systems or Standard for Video surveillance systems for use in security applications – Part 4: Application guidelines	NA	LINK
Waste product storage, use and handling	National Fire Code of Canada (NFCC)	Provincial and territorial regulations typically adopt an edition of the NBCC. Verify the local regulations and code versions in effect. Also refer to environmental and occupational health and safety regulations.	NA	LINK

If you need help, have questions or don't know where to start, contact us today!

Visit [UL.com/cannabis](https://www.ul.com/cannabis)

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