

	Flammable/Combustible Liquids – Storage and Use (including ASTs, USTs, and Temporary Use)	510-830
	AUTHORED BY: Life Safety Chief Ty Drage	EFFECTIVE DATE: 10/01/2017
	APPROVED BY: Fire Chief Ron Bateman	REVISION DATE: Scheduled 01/01/2019

This policy is meant to provide basic information for most common conditions and situations. In any given occupancy, all other Fire Code requirements will be enforced. Owners and operators, along with their employees, agents, and assigns, assume all risks arising from or related to the operation or maintenance of a marijuana facility. Front Range Fire Rescue assumes no liability for any such operation or maintenance through the adoption and enforcement of this policy. If a specific Front Range Fire Rescue policy does not exist, then the appropriate policy/procedure from the Denver Fire Department will be used as a guiding document to determine appropriate code requirements. Any costs associated with compliance with any and all fire code interpretations are the responsibility of the applicant.

Scope:

This policy covers requirements for the installation, maintenance, operation, and permitting requirements for the storage and/or use of flammable/combustible liquids within the Front Range Fire Rescue response area. This policy includes requirements for temporary as well as permanent above-ground storage tanks (ASTs) underground storage tanks (USTs) for the storage and/or use of flammable and/or combustible liquids in excess of exempt amounts as addressed within this policy.

Definitions:

Combustible Liquid – A liquid having a closed cup flash point at or above 100 degrees Fahrenheit. The category of combustible liquid does not include compressed gases or cryogenic fluids. Flammable liquids are further categorized into a Class, subdivided as follows:

Class II: Liquids having a closed cup flash point at or above 100 degrees Fahrenheit and below 140 degrees Fahrenheit

Class III-A: Liquids having a closed cup flash point at or above 140 degrees Fahrenheit and below 200 degrees Fahrenheit

Class III-B: Liquids having a closed cup flash point at or above 200 degrees Fahrenheit

Flammable Liquid – A liquid having a closed cup flash point below 100 degrees Fahrenheit. The category of flammable liquid does not include compressed gases or cryogenic fluids. Flammable liquids are further categorized into a Class, subdivided as follows:

Class I-A: Liquids having a closed cup flash point below 73 degrees Fahrenheit and having a boiling point below 100 degrees Fahrenheit

Class I-B: Liquids having a closed cup flash point below 73 degrees Fahrenheit and having boiling point at or above 100 degrees Fahrenheit

Class I-C: Liquids having a closed cup flash point at or above 73 degrees Fahrenheit and below 100 degrees Fahrenheit

Required Permits:

A permit shall be obtained by the property owner/business operator for storage and/or use of more than 1 unit of any flammable and/or combustible liquids, as defined below.

Definition of Permit Amounts (Units) for Flammable/Combustible Liquids

Class I Flammable Liquid (indoors)	1 unit = 5 gallons
Class I Flammable Liquid (outdoors)	1 unit = 10 gallons
Class II or III-A Combustible Liquid (indoors)	1 unit = 25 gallons
Class II or III-A Combustible Liquid (outdoors)	1 unit = 60 gallons
Permanent Installation of any AST or UST with a capacity of 250 gallons or more	
Permanent Removal of any AST or UST with a capacity of 250 gallons or more	
Temporary Use of any AST with a capacity of 250 gallons or more	
Temporarily Close any AST or UST for more than 90 days	
Change the Contents of any AST or UST	

A construction permit shall be obtained from Front Range Fire Rescue for any new installation/use. The permit shall be kept on site and available for inspection. An Operational Permit shall be issued upon final approval of the installation, based on fire department inspection. All Operational Permits shall be renewable annually, upon successful inspection and remittance of the appropriate fee per the FRFR Fee Schedule.

Construction Permit Plan Submittal:

To obtain permit(s) for new installation/use of flammable/combustible liquids, the business owner or authorized company representative shall submit a completed Flammable/Combustible Liquid Permit Application form, as specified below, and remit the appropriate fee per the FRFR Fee Schedule. The applicant shall also be responsible for obtaining any required permits from the municipality. The applicant shall submit the following information with their application:

- a. Exact address, legal description, and specific location of the work to be performed.
- b. Name and physical address of the person or firm responsible for the preparation of the drawings and specifications. If after review of the construction drawings and specifications, the Fire Code Official determines that the proposal is inadequately designed, the Fire Code Official may require that the construction drawings and specifications bear the seal of a licensed Colorado professional engineer. All associated costs are the responsibility of the applicant.

- c. Digital documents shall be accepted in PDF format only. All electronic submittals shall include all of the information referenced below for printed submittals, but shall only require one (1) copy of each.
- d. If printed documents are submitted, two (2) complete sets of construction documents showing all necessary details for an accurate plan review.
- e. One copy of specifications or notes that clearly describe the type, quality and finish of materials and the method of assembly, erection and installation of equipment to be installed with proper reference to accepted standards.
- f. A to-scale plot plan showing the location of the proposed construction (i.e., tanks) and the location of every adjacent existing building on the property, roads, walks, utilities, and other site improvements, all property lines, streets, alleys, easements, and other public areas.
- g. Bulk tank installations over 2,000 pounds shall require an engineered structural foundation with a separate tank installation permit. Complete sets of structural drawings, specifications and analysis (calculations) shall be provided and shall bear the seal of a Colorado licensed professional engineer. Printed submittals shall require two (2) complete sets.

A Construction Permit shall be issued upon fire department approval of all submitted documents.

Operational Permits:

Operational permits shall only be issued upon approval, issuance, and final inspections of required construction permits. Operational permits may be issued for:

- Motor Fuel Dispensing Facility (Attended Sales)
- Motor Fuel Dispensing Facility (Unattended Sales)
- Motor Fuel Dispensing (Temporary Operations)
- Flammable/Combustible Liquids (Indoor Storage/Use)
- Flammable/Combustible Liquids (Outdoor Storage/Use)

To obtain required operational permit(s), the owner or responsible person shall complete and sign the Flammable/Combustible Liquid Permit Application and remit the required annual permit fee. Refer to the Front Range Fire Rescue Fee Schedule for permit fees.

Operational permits shall be renewable annually upon inspection by Front Range Fire Rescue.

Operational permits shall be posted on site and available for inspection.

Permit Fee Calculations:

The following table shall be used to calculate the required permit fee for each application. Construction permit fees shall be charged for the installation of any proposed new storage/use of a flammable or combustible liquid. The initial fee payment shall cover the costs of the plan review, one site inspection, and the first 12 months of the operational permit, if issued. Operational permit fees shall be charged for each separate process and shall be valid for 12 months from the date issued, pending successful completion of an inspection by Front Range Fire Rescue.

Motor Fuel Dispensing Facility (Attended Sales)	\$100 per tank
Motor Fuel Dispensing Facility (Unattended Sales)	\$100 per tank
Motor Fuel Dispensing (Temporary Operations)	\$100 per tank
Flammable/Combustible Liquids (Indoor Storage/Use)	See table below
Flammable/Combustible Liquids (Outdoor Storage/Use)	See table below

PERMIT FEE AMOUNTS FOR INDOOR OR OUTDOOR STORAGE/USE

1 to 10 units	\$100 for the first unit, plus \$5 for each additional unit or fraction thereof, up to and including the 10 th unit
11 to 50 units	\$145 for the first 10 units, plus \$2.50 for each additional unit or fraction thereof, up to and including the 50 th unit
51 to 100 units	\$245 for the first 50 units, plus \$1.25 for each additional unit or fraction thereof, up to and including the 100 th unit
101 to 200 units	\$307.50 for the first 100 units, plus \$1.00 for each additional unit or fraction thereof, up to and including the 200 th unit
201 to 500 units	\$407.50 for the first 200 units, plus \$0.75 for each additional unit or fraction thereof, up to and including the 500 th unit
501 or more units	\$632.50 for the first 500 units, plus \$0.50 for each additional unit or fraction thereof

Site Inspection:

Upon issuance of the construction permit, and after final installation of the system, the installation vendor shall notify Front Range Fire Rescue of the need for an inspection. It may be necessary for an inspection by a third party entity prior to approval by Front Range Fire Rescue, depending upon the circumstances of the installation. The applicant shall be responsible for all costs associated with third party involvement.

Installation of liquid piping systems may require a mechanical permit that is issued by the municipality, in addition to any construction permits. Such permit shall be completed and closed by inspection prior to any inspection by Front Range Fire Rescue.

Front Range Fire Rescue will conduct a final inspection and acceptance test prior to closing any outstanding construction permits and/or issuing any operational permits. Upon successful final inspection, an operational permit will be issued to the business/property owner. Compliance with all applicable codes, standards and regulations shall be maintained at all times. The permit shall be posted on site and available for inspection at all times. The permit shall be valid for the business/property owner, site address, time frame, and activity as indicated on the permit. Permits shall be revoked, with no refund given, if:

1. Any of the conditions or limitations set forth in the permit has been violated,
2. Compliance with written orders has not been achieved,
3. False statements or misrepresentation of information provided in the permit application is discovered,
4. The permit is issued in error or in violation of municipal code or the adopted Fire Code.

Fire Safety Requirements and Conditions:

Compliance with all of the following requirements and conditions shall be maintained at all times:

1. Permits are required to store, transport, dispense, use or handle flammable/combustible liquids in excess of quantities specified in Section 105 of the adopted International Fire Code.
2. Smoking, open flames, and other ignition sources shall be prohibited within 25 feet of flammable/combustible liquid use/storage locations. "NO SMOKING" and "FLAMMABLE" signs, as appropriate, shall be posted in approved locations and smoking prohibition enforced by the business owner/responsible party.
3. A portable fire extinguisher with a minimum size of 2A-10BC shall be located no closer than 10 feet and no farther than 50 feet of use/storage locations.
4. Storage areas shall be kept clear of dry vegetation and combustible materials for minimum distance of 15 feet.
5. No storage shall be allowed within 10 feet of a building exit.
6. Flammable/combustible liquid containers, cylinders, tanks and systems shall be marked in accordance with nationally recognized standards, the adopted International Fire Code and applicable NFPA standards.
7. Secondary containment shall be provided in accordance with the adopted IFC for any single vessel exceeding 55 gallons or aggregate capacity exceeding 1,000 gallons.
8. Outdoor control areas shall be located no closer than 20 feet to a lot line, public alley or public way.
9. The storage of empty tanks and containers previously used for the storage of flammable or combustible liquids, unless free from explosive vapors, shall be stored as required for filled tanks and containers. Tanks and containers, when emptied, shall have the covers or plugs immediately replaced in openings.
10. Class I, II, or III-A liquids including stock for sale shall not be stored near an exit, access doorway, stairway or in a location that would impede egress.
11. Tanks over 100 gallons capacity, permanently installed or mounted and used for the storage of Class I, II, or III-A liquids shall bear a label or placard identify the material, in accordance with NFPA 704.

12. Storage of flammable or combustible liquids shall be separated from incompatible materials.
13. Venting of tanks containing flammable liquids or their vapors shall be in accordance with the adopted IFC. Vapors may not be released less than 12 feet above finished ground level. At construction sites, vent stacks shall extend a minimum of three (3) feet above any electrical service or pump head.
14. Electrical service to pumps shall be protected from physical damage. Any electrical connection with three (3) feet of the pump or any potential damage area shall be classified as a Class 1/Division 1 area.

General Safety Information for Flammable/Combustible Liquids:

1. Class I, II, and III-A liquids in excess of 10 gallons that are used for maintenance purposes or the operation of equipment shall be stored in an approved container, location and UL listed flammable liquid storage cabinet. Storage amounts shall not exceed 120 gallons total.
2. Class I liquids shall not be stored below grade or in basement areas.
3. Containers for flammable liquids shall be either the original shipping container or an approved safety container which:
 - a. Shall be made of metal
 - b. Shall not exceed five (5) gallons individual capacity
 - c. Shall not be used to increase maximum allowable quantity
4. Class I, II and III-A liquids shall not be stored near exit doorways, stairways, or in locations that would impede egress.
5. Class I and Class II liquids with a flashpoint below 110 degrees Fahrenheit shall not be used within a building for cleaning parts or degreasing, unless used in an approved closed machine or in a room specifically designed for open use of such liquids.
6. When heated, sprayed, or mixed, Class II and Class III liquids may assume the characteristics of lower flash point liquids, and therefore required to meet additional requirements established in the IFC and NFPA.
7. Liquids which have unusual burning characteristics or that are subject to self-ignition or are highly reactive or are subject to explosive decomposition, or have other special properties, shall also be regulated by the Hazardous Materials chapter of the IFC.
8. Reactive materials, those which will react with water or other liquids to produce a hazard, shall not be stored in the same room with flammable or combustible liquids.
9. Information on flammable liquid storage cabinets and storage control areas may be found in the Flammable Liquids section of the IFC.

Permits May Be Revoked Without Refund If:

1. The permit is used for a location or establishment than the one to which it was issued,
2. The permit is used for a condition or activity other than that listed on the permit,
3. Conditions and limitations set forth in the permit are violated,
4. False statements or misrepresentations are discovered in the application for permit, inventory statement, or plans submitted as a condition of the permit,
5. The permit is used by a person(s) or firm other than that listed on the permit,
6. Failure, refusal or neglect to comply with orders or notices duly served in accordance with provisions of the adopted fire code in the time provided therein,
7. The permit was issued in error or in violation of any ordinance, regulation or provision of the fire or building code.

Refer to the Front Range Fire Rescue adopted fee schedule for current permit fee amounts.

Revision History:

08/02/2017 Original documented developed

References:

Denver Fire Department – Flammable/Combustible Liquid Storage/Use, including USTs, ASTs, and Use/Storage at Construction Sites – Permit Requirements

FRONT RANGE FIRE RESCUE

FLAMMABLE/COMBUSTIBLE LIQUID PERMIT APPLICATION

THIS FORM SHALL BE COMPLETED AND SIGNED BY THE BUSINESS OWNER OR A REPRESENTATIVE OF THE PROPERTY OWNER APPLYING FOR THE PERMIT(S). PLEASE SUBMIT COMPLETED FORM TO FRONT RANGE FIRE RESCUE FOR REVIEW, APPROVAL, AND ISSUANCE OF A COPY FOR YOUR USE. REFER TO CURRENT FEE SCHEDULE FOR APPLICABLE FEES.

Business Name: _____

Physical Address: _____

City: _____ State: _____ ZIP: _____

Mailing/Billing Address: _____

City: _____ State: _____ ZIP: _____

Contact Name: _____

Phone: _____ Email: _____

Type of Flammable/Combustible Liquid: _____

Intended Use: _____

Container Type: _____ Container Size (gallons): _____ # of Containers: _____

Type of Flammable/Combustible Liquid: _____

Intended Use: _____

Container Type: _____ Container Size (gallons): _____ # of Containers: _____

Attach additional pages if needed to provide complete and accurate inventory of all liquids.

Provide detailed, to-scale, site plan as directed in Policy.

Indicate location(s) of compressed gas storage on attached to-scale drawing.

I HAVE READ AND UNDERSTAND THE FRONT RANGE FIRE RESCUE POLICIES REGARDING FLAMMABLE/COMBUSTIBLE LIQUID STORAGE AND USE. I ALSO UNDERSTAND THAT FRONT RANGE FIRE RESCUE WILL CONDUCT A SITE INSPECTION, AND THAT IF I FAIL TO COMPLY WITH THE ADOPTED FIRE CODE, BUILDING CODE OR NFPA STANDARDS, MY PERMIT(S) AND/OR APPROVALS MAY BE REVOKED WITHOUT A REFUND.

PRINTED NAME: _____

SIGNATURE: _____ DATE: _____