

	Propane (LPG) Storage and Use		510-835
	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 liquefied propane gas (i.e., propane, butane, LPG, etc.) within the Front Range Fire Rescue (FRFR) response area. A permit is required when one (1) pound or more of LPG is used and/or stored at a property within the FRFR response area. This includes LPG used on a temporary or permanent basis, as well as propane (LPG) exchange systems and propane (LPG) refilling operations. Distributors shall not fill any LPG container for which a permit is required unless that installation has a current and valid LPG Permit issued by FRFR. Obtaining a permit from FRFR does not alleviate any municipal permit requirements. Compliance with this policy does not alleviate the responsibility of the applicant to comply with permit requirements from the municipality.

Required Permits:

Propane (LPG) Exchange (i.e., Tanks Awaiting Resale) – Any propane exchange operation shall require a permit prior to installation. The installation vendor shall apply for a permit to install any new cage or system prior to delivery. See below for required application information. An operational permit shall be maintained by the facility operator after installation is approved and a final inspection is conducted. A separate operational permit is required for every 36 tanks awaiting resale, or any fraction of 36 tanks thereof.

Propane (LPG) Refilling and/or Bulk Operations – Any LPG tank/container of 500 gallons or greater capacity that is stored outdoors and is used solely for refilling smaller privately owned tanks or for providing temporary heat during construction shall require a permit prior to installation. The installation vendor shall apply for a permit to install any new LPG tank of 500 gallons or greater prior to delivery. See below for required application information. An operational permit shall be maintained by the facility operator after installation is approved and a final inspection is conducted.

Propane (LPG) Storage/Use – A permit shall be obtained by the property owner/business operator for storage and/or use of more than one (1) pound of any propane (LPG) product that does not meet any of the above definitions.

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 propane (LPG), the business owner or authorized company representative shall submit a completed Propane (LPG) 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:

- Propane (LPG) Exchange
- Propane (LPG) Refilling and/or Bulk Operations
- Propane (LPG) Storage/Use

To obtain required operational permit(s), the owner or responsible person shall complete and sign the Propane (LPG) 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.

Propane (LPG) Exchange	\$100 per 36 cylinders, or fraction thereof
Propane (LPG) Refilling and/or Bulk Operations	\$100 per bulk LPG tank
Propane (LPG) Storage/Use	See table below

PERMIT FEE AMOUNTS FOR INDOOR OR OUTDOOR STORAGE/USE

1 to 100 pounds	\$100 for the first pound, plus \$0.75 for each additional pound or fraction thereof, up to and including the 100 th pound
101 to 500 pounds	\$174.25 for the first 100 pounds, plus \$0.50 for each additional pound or fraction thereof, up to and including the 500 th pound
501 to 1000 pounds	\$374.25 for the first 500 pounds, plus \$0.25 for each additional pound or fraction thereof, up to and including the 1000 th pound
1001 pounds or more	\$500.25 for the first 1000 pounds, plus \$0.20 for each additional pound 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 LPG 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.

Fire Safety Requirements and Conditions:

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

1. 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.
2. 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.
3. Storage areas shall be kept clear of dry vegetation and combustible materials for minimum distance of 15 feet.
4. No storage of propane (LPG) shall be allowed inside occupied buildings or within 20 feet of a building exit, access doorway, stairway or in a location that would impede egress.
5. LPG containers, cylinders, tanks and systems shall be marked in accordance with nationally recognized standards, the adopted International Fire Code and applicable NFPA standards.
6. Outdoor control areas shall be located no closer than 20 feet to a lot line, public alley or public way. Building separation distances shall be determined by the aggregate quantity of LPG.
7. The storage of empty tanks and containers previously used for the storage of LPG, unless free from explosive vapors, shall be stored as required for filled tanks and containers.
8. Approved vehicle impact protection shall be provided for any LPG cylinder, container, or tank.
9. Propane (LPG) exchange cages shall be no closer than 20 feet to motor fuel dispensing areas.
10. Propane (LPG) exchange cages shall be constructed of metal in a manner that allows for complete ventilation of the cage.
11. A qualified attendant shall be the only person to remove or replace cylinders in exchange cages unless the cage has been approved as an automated exchange cage by FRFR.

12. All propane (LPG) containers and cages shall be labeled with the supplier's emergency phone number. The supplier shall provide response to LPG-related emergencies 24 hours per day, 365 days per year.
13. The LPG supplier shall provide all employees at each location with an approved training program that includes LPG characteristics, dangers of LPG, and emergency procedures.
14. Each business shall maintain a list of all trained employees. This list shall be made available for inspection upon fire department request.
15. Transportation, storage and use of LPG containers shall comply with all pertinent DOT, Code of Federal Regulations (CFR) 49, State of Colorado regulations, and local ordinances and codes.

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.
8. The required permit fee(s) are not paid within 30 days of permit issue.

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 – Propane (LPG) Use/Storage

FRONT RANGE FIRE RESCUE

PROPANE (LPG) STORAGE/USE 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: _____

Indicate Permit Type Desired:

Propane (LPG) Exchange Propane (LPG) Bulk/Refilling Propane (LPG) Storage/Use

Propane Exchange – Indicate number of cages and capacity: _____

Propane Refilling: Tank Size: _____ # of Tanks: _____

Intended Use: _____

Propane Storage/Use: Tank Size: _____ # of Tanks: _____

Intended Use: _____

**Attach additional pages if needed to provide complete and accurate inventory and/or description.

Provide detailed site plan as directed in Policy, indicating location(s) of propane (LPG) storage/use.

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: _____