



Loveland Fire Rescue Authority
Community Safety Division
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Loveland, Colorado 80537
Phone (970) 962-2537

MOBILE VENDOR FIRE SAFETY REQUIREMENTS

PERMITTING PROCESS

In order to operate safely and legally, all mobile vendors that have a fuel source must be inspected and approved by Loveland Fire Rescue Authority. A fuel source includes but may not be limited to a generator and/or LPG (propane storage containers). Additionally, all cooking that produces greasy vapors must have a Type I kitchen hood and a cooking automatic suppression system.

For the purpose of this document and the licensing process, these requirements apply to all mobile vendors, regardless of the size, design and layout of the mobile vendor vehicle, whether it is a truck, cart, trailer, etc.

The applicant must meet minimum fire-safety requirements based on the 2018 International Fire Code and National Fire Protection Association (NFPA) that pertain to fuel safety, cooking appliances and fire protection.

Nationally, numerous injuries and deaths have occurred due to explosive fires in mobile food vehicles. By meeting Fire Code requirements, the likelihood of these events occurring is minimized. Mobile food operations are identical to small, stationary restaurants; people cooking within mobile trucks, as well as customers who may be nearby, deserve the same level of protection and safety as those within brick-and-mortar buildings.

LFRA reviews information provided by the applicant and also completes an inspection of the vehicle. If cooking appliances produce grease-laden vapors, a Type I hood and automatic suppression are required. The kitchen suppression system is required to be installed by a contractor licensed to install hood suppression.

Please note that LFRA may update mobile food vendor safety requirements at any time. Future specifications and permitting processes may reflect the adoption of comprehensive fire-safety rules by the NFPA for mobile food vehicles.

VEHICLE INSPECTION BY LFRA

LFRA will conduct a visual inspection of the vehicle. The vendor must schedule the fire inspection at least 48 hours in advance by calling (970) 962-2537. Cost for the inspection and Fire Permit (good for one calendar year) is \$50.

MINIMUM FIRE-SAFETY REQUIREMENTS

LFRA requires all mobile food vendors to adhere to the following requirements and their approved fire-safety plan, as well as manufacturers' specifications and best practices for their vehicle.

Liquid Propane (LPG) Cylinders

LPG is often the fuel source to prepare cooked foods in the mobile vendor vehicles. The risk with LPG, as with any flammable gas, is that explosions or fires can occur without warning if the fuel vapors come in contact with a heat source. LPG cylinders must be mounted, stored, piped and utilized according to the safety requirements of the International Fire Code. The following requirements must be followed in the design and operation of the food vehicle:

- Only USDOT-approved models of propane tanks (49 CFR 178) may be used on mobile food vehicles. Tanks must be labeled with prominent safety placards in accordance with USDOT regulations (49 CFR 178).
- LPG cylinders shall *never* be transported or installed inside a vehicle work/passenger area.
- The maximum aggregate water capacity of propane bottles is 50 gallons. This is equivalent to an aggregate capacity of approximately **two 100-pound** bottles of propane.
- All propane piping must be constructed and installed in accordance with NFPA 58 – 6.23.5. All propane pipes and fixtures must be made of steel, copper or brass. No plastic or rubber piping of any kind will be permitted in the vehicle for any purpose.
- Quick-connect devices are not allowed, except on chassis-mounted tanks. Any quick-connect devices on chassis-mounted tanks shall be equipped with a manual shutoff.
- LPG cylinders shall at all times be kept away from open flames and other heat sources, such as generators and cooking equipment. No tanks shall be installed or otherwise located on the roof of the vehicle at any time.
- All LPG cylinders shall be secured during transport and must be isolated from the interior work/passenger areas.
- ASME cylinders are generally permanently mounted around the exterior and all appliances are piped outside of the passenger/work area. Portable cylinders shall also be isolated from the passenger/work area. They can be securely mounted on the outside or placed in a gastight compartment that prevents vapors from entering the passenger/work area. Containers must be located and secured to withstand impact.
- All LPG cylinders shall be stored in an upright position with the valve end up and secured to prevent falling caused by direct contact or vibration. These cylinders shall have the pressure relief devices located to direct vented vapors away from personnel, enclosed spaces, ignition sources, containers and structures.
- All piping, tubing, pressure regulators and valves shall be kept gas tight to prevent leakage. The operator/owner must have these systems on an inspection/maintenance program to ensure they're tight and to prevent leaks.
- LPG cylinders or the manifold system shutoff valves that are designed to stop the supply of fuel from all cylinders shall be clearly marked with a sign PROPANE SHUTOFF VALVE. These signs shall be a minimum of 2-inch red lettering on a white background and clearly visible from outside the vehicle.

- NO SMOKING signs (English and Spanish) shall be next to or directly above the propane containers or compartments and visible from outside the vehicle. These signs shall be a minimum of 2-inch red lettering on a white background and clearly visible from outside the vehicle.
- Propane tanks must be shut off while the vehicle is in motion, unattended and/or in storage.
- All mobile food vehicles must have a person trained in handling and refilling propane cylinders on board at all times.

Detection Devices

Carbon monoxide (CO) is a colorless, odorless, poisonous and potentially deadly gas. It is produced by incomplete burning of various fuels, including coal, wood, charcoal, oil, kerosene, propane and natural gas. Products and equipment powered by internal combustion engines such as portable generators, cars, lawn mowers and power washers also produce CO. Installation of a CO detector can provide early detection of the gas.

All enclosed mobile food vehicles are to be equipped with a working CO detector. This device must be listed and marked as being suitable for use in recreational vehicles under the requirements of ANSUL/UL 2034 or CSA 6.19 and installed and maintained according to the terms of its listing.

Propane and natural gas leaks can result in explosive fires when the gas finds an ignition (heat) source. Propane or natural gas detectors monitor the level of these gases present at the sensors. There are detection devices that are designed to go into alarm at less than 25 percent of the lower explosive level (LEL) of natural gas or propane. Installation of these devices can provide early detection of these flammable gases.

All mobile food vehicles using propane are required to be equipped with a propane detector. This device is to be listed and marked as being suitable for use in recreational vehicles under the requirements of ANSUL/UL 1484 and installed and maintained according to the terms of its listing.

Installation of CO and propane/natural gas detectors in no way substitutes for proper maintenance of all piping, tubing, pressure regulators and valves.

Cooking Equipment

- Cooking appliances must be listed by Underwriters Laboratories or NSF International for mobile applications for the appropriate fuel and be clearly marked with the appropriate rating sticker.
- Fat fryers must have a lid over the oil vat that can be secured in order to prevent the spillage of cooking oil during transit. The lid must be secured whenever the vehicle is in motion.

Ventilation System

- Enclosed vehicles must be equipped with a working ventilation system that meets the requirements of NFPA 96, Chapter 5.

- All fans in the cooking area must have a minimum combined cubic feet per minute (cfm) rating equal to twice the volume of the interior of the truck (measured in cfm).
- The ventilation system must be in operation at all times when the cooking equipment is being used.

Type I Commercial Hood System

The commercial preparation of food often involves cooking equipment operating at high temperatures. Commercial cooking operations that produce grease-laden vapors have historically caused fires that caused serious injury or death, as well as extensive damage to structures. The following requirements must be followed to improve the safety of the mobile food operation:

- If a Type I hood is installed and cooking operations produce grease vapors, LFRA requires that a fire-suppression system (wet chemical system) is provided for fire protection. These systems can be activated automatically or manually to dispense chemicals to suppress fire. Activation must also automatically shut off the fuel and/or electric supply to the cooking equipment under the hood.
- All kitchen hood fire-suppression systems shall be inspected every six months by a contractor licensed to install and/or inspect these systems. The contractor shall attach an inspection tag to the system and shall also send a copy of the inspection report to LFRA. If this report is not received by LFRA and the tag is not present, the vendor will be contacted and told to stop conducting business and the City Clerk's office (licensing department) will be notified.
- All kitchen hood fire-suppression systems shall pass the inspection of the licensed contractor. The vendor has a maximum of 30 days to correct any violations and the licensed contractor shall send a report to LFRA showing code compliance.

Portable Fire Extinguishers

Portable fire extinguishers give the occupants the means to suppress a fire when it's still small. The capability of this type of manual fire suppression can contribute to the protection of the occupants, especially if fire is cutting off the route to the exit. The following requirements apply to portable fire extinguishers:

- In order for portable extinguishers to be effective, all personnel should be trained in the use of extinguishers. LFRA will provide training if contacted by the business owner.
- All mobile food vehicles shall be equipped with at least one 2A:10BC rated fire extinguisher. This fire extinguisher(s) shall be fully charged and inspected at least annually by a contractor licensed to inspect portable extinguishers.
- Additionally, all mobile food vehicles with commercial cooking operations producing greasy vapors shall have a 1.5-gallon Class K portable fire extinguisher. All solid fuel cooking appliances (wood-burning ovens) shall have a 2.5-gallon Class K portable fire extinguisher.
- All fire extinguishers (Class ABC and Class K) shall be permanently mounted in the cooking area on a hanger, secured and in clear view.

Electrical equipment

All electrical equipment shall be listed for its use and in good working condition, with no frayed or damaged cords, receptacles, etc.

Vehicle Location

Minimum separation distance from the food truck to buildings, structures, vehicles and any combustible materials is 10 feet.

Exiting the Vehicle

Mobile food trucks must meet minimum Fire Code requirements for exiting. In the event of an emergency, employees must be able to open a locked door using a single motion, such as depressing a lever, to quickly exit the vehicle. Using a numbered code or multiple hand movements to open the truck door is not allowed. Walking surfaces on the egress path must have a slip-resistant surface. The exit path must be free of any protruding obstructions.

Records Maintenance

All maintenance records must be kept on the vehicle at all times, including but not limited to the approved vendor license, kitchen-hood suppression system inspections and portable fire extinguisher inspections