



# FRONT RANGE FIRE RESCUE

PO Box 130, Milliken, CO 80543

970-587-4464 / Fax: 970-587-0324

*Courage ★ Compassion ★ Professionalism*

*Serving Johnstown, Milliken and Weld County for more than 100 years*

## **MOBILE FOOD VENDOR FIRE SAFETY REQUIREMENTS**

### **Permitting Process**

Front Range Fire Rescue (FRFR) cooperates with the Weld County licensing processes for mobile food vendors. The Weld County Health Department issues the license after participating departments review and approve the application.

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

The applicant must meet minimum fire safety requirements based on the adopted International Fire Code (IFC) and National Fire Protection Association (NFPA) that pertain to fuel safety, cooking appliances, and fire protection systems. Because mobile food vendors are essentially small, stationary restaurants, FRFR requires that these minimum requirements be met to protect the people cooking within the mobile trucks as well as those customers who are nearby. Everyone deserves the same level of personal protection and safety as those who are dining within permanent buildings. Nationally, numerous injuries and deaths have occurred due to explosive fires in mobile food vehicles. By meeting fire code requirements, the likelihood of these deadly events is minimized.

FRFR reviews information provided by the applicant and also completes a physical inspection of the vehicle. If the cooking operations within the vehicle produce greasy vapors, the vehicle most likely requires use of a Type 1 hood suppression system and commercial cooking appliances.

Please note that FRFR monitors current NFPA standards for mobile food vehicles and may update specifications and permitting requirements based on updated national standards.

### **Plan Review Process**

The applicant must complete and submit plan review information to Front Range Fire Rescue, as well as Weld County and the municipality where the mobile food truck will be operated. Submitted information must include the following:

- Name, street address, telephone number, and email of applicant
- Name of business and brief description of foods to be sold
- Year, make and model of the vehicle (if applicable)
- Layout/floor plan of the vehicle
- Photos of all four sides of the vehicle
- Information on use of propane tanks (size, type, location, etc)
- Information on cooking operations
- Information on awnings, umbrellas, etc. (may need to be fire rated)



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FRFR will review submitted materials within 10 business days. After review is complete, the applicant will receive written comments and corrections, if needed. An inspection can be scheduled after all corrections have been addressed and the review process has been completed.

## **Inspection Process**

After the submitted plans have been approved, FRFR will conduct a physical inspection of the mobile food vehicle. If the vehicle has a Type 1 hood suppression system, that will be inspected at the same time. (Please note that Type 1 hoods must be serviced by a licensed contractor no less than once every 6 months.) The applicant must contact FRFR (970-587-4464) at least 24 hours in advance to schedule the inspection. If a re-inspection is required, the applicant may be assessed a \$75 re-inspection fee prior to that being scheduled.

Once the inspection has been successfully completed, the applicant may receive written approval and an operational permit from FRFR. The Weld County Fire Department Approval Form will be completed at this time.

## **Minimum Fire Safety Requirements**

Liquefied propane gas (LPG) is the most common fuel source used to prepare cooked foods in mobile food vehicles. The use of LPG or any other flammable gas presents a risk of fire and/or explosion if those vapors come into contact with a heat source. LPG cylinders must be mounted, stored, piped and used according to the safety requirements of the IFC. The following requirements must be followed in the design and operation of the food vehicle:

- Only USDOT-approved propane tanks (49 CFR 178) may be used with mobile food vehicles. Tanks must be appropriately labeled with all required safety placards.
- LPG cylinders shall never be transported or installed inside a passenger area or work area.
- The maximum aggregate water capacity of LPG cylinders is 50 gallons. This is equivalent to approximately two (2) 100-pound LPG cylinders.
- All LPG piping must be constructed and installed in accordance with NFPA 58-6.23.5. All LPG 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 shall be equipped with a manual shutoff.
- LPG cylinders shall be kept aware from open flames or other heat sources at all times. Examples include generators and cooking equipment. No LPG tanks shall be installed or located on the roof of the vehicle at any time.
- All LPG cylinders shall be secured during transport and must be isolated from the passenger area and work area.



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- ASME cylinders are generally permanently mounted around the exterior all appliances are piped outside of the passenger area/work area. Portable cylinders shall also be isolated from the passenger area/work area. They can be securely mounted on the outside or placed in a gas-tight compartment that prevents vapors from entering the passenger area or work area. Cylinders must be located and secured to withstand impact.
- All LPG cylinders shall be stored in an upright position with the valve end up and shall be secured to prevent falling by direction contact or vibration. Cylinders shall have the pressure relief devices located to direct vented vapors away from persons, 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 schedule to ensure they are tight and to prevent leaks.
- LPG cylinders and manifold system shutoff valves that are designed to stop the supply of fuel from all cylinders shall be clearly marked with a PROPANE SHUTOFF VALVE sign or label. These signs and labels shall be a minimum of two-inch red lettering on a white background and clearly visible from outside the vehicle.
- NO SMOKING signs in English and Spanish shall be posted next to or directly above the LPG cylinders or compartments and shall be visible from the outside. Signs and labels shall be a minimum of two-inch red lettering on a white background.
- LPG cylinders shall 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 LPG 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 combustion of various fuels, including coal, wood, charcoal, LPG, natural gas, and kerosene. Equipment that is powered by internal combustion engines, such as generators, cars, and lawn mowers, also produce CO. Installation of CO detector can provide early warning of potentially harmful levels of the gas.

All enclosed mobile food vehicles shall be equipped with a work CO detector. The device must be listed and marked as being suitable for use in recreational vehicles according to the requirements of ANSUL/UL 2034 or CSA 6.19 and shall be 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. Flammable gas detectors are able to monitor for the presence of these gases at less than 25% of the lower explosive level (LEL) of natural gas or propane. Installation of these detectors can provide early warning of potentially harmful levels of these gases.



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

Installation of CO and propane/natural gas detectors does not substitute for proper maintenance of piping, tubing, valves and pressure regulators.

### **Cooking Equipment**

Cooking appliance must be listed by Underwriters Laboratories (UL) or NSF International for mobile applications for the appropriate fuel and shall be clearly marked with the appropriate rating sticker or label.

Fat fryers must have a lid over the oil vat that be secured to prevent the spillage of cooking oil during transit. The lid shall be secured whenever the vehicle is in motion.

### **Ventilation System**

Enclosed vehicles shall be equipped with a functioning 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.

The ventilation system shall be in operation at all times when the cooking equipment is being used.

### **Type 1 Commercial Hood System**

The commercial preparation of food often involves cooking equipment being operated at high temperatures. Commercial cooking operations that produce grease-laden vapors have historically caused fires that resulted in serious injury or death, as well as extensive property damage. The following requirements shall be applied to all mobile food cooking operations:

- If a Type 1 hood is installed and cooking operations produce grease-laden vapors, FRFR requires that a wet chemical fire suppression system is provided for fire protection. These systems can be activated either manually or automatically to dispense chemicals to suppress fire. Activation must automatically shut off the fuel supply and any electrical connections to the cooking equipment beneath the hood.
- All kitchen hood suppression systems shall be inspected at least every six (6) months by a contractor certified to install and/or inspect these systems. The contractor shall attach an inspection tag to the system and shall provide a written report to the owner/operator. The report shall be made available at all times the mobile food vehicle is being operated.



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### **Portable Fire Extinguishers**

Portable fire extinguishers provide occupants the means to suppress a fire while it is still small. This capability can provide enough time for occupants to escape and possibly limit the size of the fire. The following requirements apply to portable fire extinguishers in mobile food vehicles:

- All mobile food vehicles that involve cooking shall be equipped with at least one (1) 2A:10BC rated fire extinguisher. The fire extinguisher(s) shall be fully charged and inspected at least annually by a contractor certified to inspect portable fire extinguishers.
- All mobile food vehicles with commercial cooking operations that produce grease-laden vapors shall also have a 1.5-gallon Class K portable fire extinguisher.
- All mobile food vehicles with solid fuel cooking appliances (wood-burning ovens) shall have a 2.5-gallon Class K portable fire extinguisher.
- All fire extinguishers shall be permanently mounted in the cooking area on an appropriate hanger, secured and in clear view.

### **Means of Egress**

Mobile food trucks must meet minimum fire code requirements for exiting. In the event of an emergency inside the vehicle, employees must be able to open any locked door with a single motion, such as depressing a lever, to quickly exit the vehicle. Use of a numbered code or multiple hand movements to open the exit door is prohibited. Walking surfaces along the exit path must have a slip-resistant surface. The exit path must be kept free of any protruding obstructions.

### **Records Maintenance**

All service and maintenance records shall be kept in the vehicle at all times it is in operation. Examples include FRFR permit, County license, hood system inspections and portable fire extinguisher inspections.