



FIRE PREVENTION DIVISION POLICY

Subject: Mobile Retail Food Vendor

References: International Fire Code, Denver Amendments, and NFPA 55, 58, 70, IFC-105, 609, 904, 906

Approved: Cory DeBaere, Division Chief, Fire Prevention Division

Revised Date: January 2, 2022

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This policy is meant to provide basic information for most common conditions and situations regarding Mobile Retail Food Vendor vehicles. All Fire Code requirements will be enforced, these will be addressed by the Fire Inspector. Questions can be addressed by contacting the Fire Prevention Division at (720) 913-3474 or by email at dfdmobiles@denvergov.org.

I. SCOPE

The Denver Fire Department must approve Mobile Retail Food Vending operations that intend to conduct business in the City and County of Denver. Each vehicle must be constructed and maintained according to the current Denver Fire Code (DFC) that has been adopted by the City and County of Denver and current National Fire Protection Association (NFPA) standards.

To ensure compliance with the current Denver Fire Code and NFPA standards, each vehicle/operation (Truck, Trailer, Cart and Kiosk) must receive an annual Fire Code Inspection which will be conducted by inspectors from the Denver Fire Department- Fire Prevention Division. *Denver Fire Code and NFPA information can be found below.*

If certain cooking conditions are present, the vehicle/operation must have a valid and current Operational Permit for the Use and Storage of Liquid Petroleum Gas (LP Gas or Propane). *Permit information can be found below.*

All construction and fabrication on Mobile Retail Food Vendor businesses shall be completed prior to the Denver Fire Department performing an inspection. Contact Denver Fire Department inspectors to clarify any questions or obtain further information.

II. LICENSING PROCESS

- A. All Mobile Retail Food Vendor operation licensing must begin with Excise and Licenses.
- B. Visit <http://www.denvergov.org/businesslicensing> to obtain licensing and fee information.
- C. A complete Mobile Plan Review must be submitted to Excise, and Licenses prior to an Inspection being scheduled. The Plan Review must be viewed and approved by the Denver Fire Department and Environmental Health.
- D. If an LPG/Propane permit is required, the appropriate application with payment must be submitted to the Denver Fire Department.

III. MOBILE PLAN REVIEW

Items on the Mobile Plan Review packet to highlight for the Denver Fire Department portion of the review. A detailed description in the appropriate section and accompanying photos are needed for the following:

- A. Type and location of each Fire Extinguisher (2 A 10 BC and Class K)
- B. Commercial Hood System
- C. Hood Suppression System
- D. Hot Water Heater (Gas vs. Electric)
- E. Power Source (Generator)



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- F. Propane System (Location of LP Gas/Propane cylinders, Gas regulators, Steel piping location, flex line type)
- G. Appliance type (Commercial LP Gas/Propane or electric required)

A detailed floor plan with accompanying photos will assist in an expedited review and approval.

IV. INSPECTIONS

All Mobile Retail Food vehicles must be inspected annually by the Denver Fire Department (DFD) to maintain compliance with the Denver Fire Code and National Fire Protection Standards.

Compliance with the Denver Fire Code and National Fire Protection Standards can reduce the likelihood of catastrophic failures and injuries.

All construction and fabrication on Mobile Retail Food Vendor vehicles shall be completed prior to the Denver Fire Department performing a vehicle inspection. Contact Denver Fire Department inspectors to clarify any questions or obtain further information.

V. PERMITS

The Denver Fire Department must approve the use of and/or storage of LPG (Propane) by Mobile Retail Food Vendor in advance. A permit must be issued prior to the use and/or storage of LPG. A permit is required when: one pound or more of LPG is used and/or stored on a Mobile Retail Food Vending operation in the City and County of Denver. This includes LPG used on a temporary or permanent basis.

Refilling of LP Gas/Propane tanks while on site is not allowed. Propane cylinders cannot be switched out while an event is underway.

The vehicle/kiosk owner, prior operation, must obtain an LPG Use/Storage permit from the Denver Fire Department. To convert LPG quantities from gallons to pounds, use the following formula:

$$\text{Number of gallons} \times 4.2 = \text{Number of pounds}$$

$$\text{Example: } 10 \text{ gallons} \times 4.2 = 42 \text{ pounds}$$

For information, please contact Denver Fire Department Fire Prevention inspectors at **(720) 913-3474** or send an email to: dfdmobiles@denvergov.org.

LIQUEFIED PETROLEUM GAS (LPG) PERMIT FEE - \$185.00. (DO NOT pay before you have received the invoice) When the permit application has been reviewed and approved an invoice will be sent via email. In the email there will be a link to pay online. Once the payment has been made you will receive another email with your permit. A copy of the permit will need to be provided on inspection day.

VI. GENERAL REQUIREMENTS

COMMERCIAL HOOD SUPPRESSION SYSTEMS

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- A. All vehicles with grease producing activities of any type (cooking, warming of precooked foods, frying, deep fat frying, woks, etc.) shall be required to have a Type I hood with an extinguishment system installed.
- B. Hood extinguishment systems shall be inspected every 6 months by a DFD licensed fire extinguisher inspector.
- C. Exhaust hood and ventilation systems and filters shall be kept clean and operational. Cleaning must be performed at a minimum each quarter (every three months).
 1. A logbook for the cleaning shall be kept on the vehicle and be readily available for the inspectors to review.
- D. Two (2) complete sets of pre-engineered automatic extinguishing systems shop drawings shall be submitted for permit application with the following information:
 1. System to be UL-300 listed
 2. Product data sheets (panel, nozzles, etc.)
 3. Nozzle location shown with type appliance.
 4. Discharge density for the cooking equipment being protected.
 5. Location of manual pull station from hood.
 6. Denver Fire Department contractor license number.
- E. Submittals shall be given to the Denver Fire Department, Fire Prevention Division, Attn: Mobiles Inspector located at 745 W Colfax Ave.

HOOD SYSTEMS

If grease laden vapors are produced during the cooking or reheating process, the vehicle or kiosk must have a Class I Commercial Hood System installed. The entire hood system must be cleaned regularly at a minimum each quarter (every three months) and documented in the Hood Cleaning and Maintenance Log, which must remain on the vehicle or kiosk for inspection.

APPLIANCES

All appliances on the vehicle or in the kiosk must be commercial grade cooking and heating equipment that is designed to utilize LP Gas/Propane (No natural gas appliances will be allowed) or electricity. Typical Residential Household appliances are not allowed to be utilized on a Mobile Retail Food Vehicle or Kiosk.

GENERATOR (S)

Permanently mounted vehicle generator (s)

- A. Fuel source shall be from the unit fuel tank, the vehicle fuel tank or installed propane system.
- B. No onsite fueling allowed, unless done after business hours.
- C. Must be grounded to the vehicle and electrical system.

Portable generator (s)

- A. Fuel source shall be from the generators' factory installed fuel tank.
- B. No onsite fueling allowed, unless done after business hours.

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- C. Exhaust must be directed away from interior of vehicle, away from customers and away from all doors and windows.
- D. Cords must be tended and maintained as to not become a tripping or electrical hazard. Extension cords shall be free of damage and must have an intact ground pin.
- E. Shall have a shore power weatherproof plug-in on vehicle for generator to plug into.
- F. The generator must be kept a minimum of 5 ft. from combustible materials.
- G. If transported on front or rear of vehicle, the generator shall be enclosed in an impact resistant cage or be in an appropriate compartment with proper ventilation and sealed from interior of vehicle.

VEHICLE ELECTRICAL SYSTEM

- A. All electrical circuits must be properly grounded to the electric panel (breaker box) and vehicle.
- B. Where field installed wiring passes through the opening of an enclosure, a strain relief or conduit to appliance/box connector shall be used to protect the conductors from the sharp edges of the opening.
- C. No bare or exposed wiring shall be present. The use of bare wire, exposed wire or Romex is prohibited, except for factory installed appliance plugs.
- D. In the electrical system, all exposed metal parts, enclosures, frames, luminaire canopies, and so forth, shall be effectively bonded to the grounding terminal or enclosure of the electric panel (breaker box)
- E. Where outdoor or under-chassis line-voltage (120 volts, nominal, or higher) wiring is exposed to moisture or physical damage, it shall be protected by a conduit or raceway approved for use in wet locations or where subject to physical damage. The conductors shall be listed for use in wet locations.
- F. All breakers in panel box shall be labeled.
- G. All interior wiring not installed within the sealed walls of the vehicle shall be enclosed in solid EMT (electrical metallic conduit) conduit.

LPG SYSTEMS

Tank Installation Requirements:

- A. (2) 40-pound bottles (maximum). All D.O.T. bottles shall have an Overfill Protection Device (OPD) installed. Properly installed A.S.M.E tanks do not require an OPD.
- B. LPG tanks shall be mounted to prevent jarring loose, slipping, rotating, or any damage to the tank. The brackets and fastenings shall be designed and constructed to withstand any movement of the LPG tank. No part of the bracket shall be allowed to impinge on or rub the LPG tank.
- C. All LPG tank valves, hoses, connections, and regulators shall be installed and protected to prevent damage from accidental contact with stationary objects, vehicle impact, and damage from sleet, snow, freezing rain, ice, mud, and wheel spray. If an LPG tank is installed in an impact resistant cage, as mentioned below, the top and upper third of cage shall have sheet metal to protect the tank valve and regulator (if installed within cage).
- D. Regulators not installed in a vented compartment or impact resistant cage

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shall be equipped with a durable cover designed to protect the regulator vent opening from sleet, snow, freezing rain, ice, mud, and wheel spray.

- E. If multiple appliances are installed on a vehicle and fueled from the same tank(s), a two-stage regulator shall be used and installed at or near the fuel source.
- F. LPG tanks mounted on trailers can be mounted on the A frame structure of the tongue of the trailer with propane brackets that prevent any movement. No impact resistant cage is required if there is no likelihood of damage from sleet, snow, freezing rain, ice, mud, and wheel spray or vehicular accident. If LPG tanks are mounted on the corners or rear of the vehicle, it shall be enclosed in an impact resistant cage to prevent damage from vehicular accident and the bottom of the LPG tanks no lower than 28 inches above bumper or A frame structure.
- G. LPG tanks installed in a compartment on the rear of the vehicle or tongue of a trailer shall be ventilated at the top and bottom of the compartment.
- H. Post a D.O.T style decal or placard with an identification code of "1075" and a decal that states "Flammable" on the access hatch/door for propane tanks for visual recognition as to location of tanks and shut offs on compartments or ASME tank locations.
- I. Have bottom of LPG tanks no lower than 28 inches above bumper on rear of trucks or trailers.
- J. LPG tanks shall not be mounted directly on roofs or ahead of the front axle.

LPG PIPING REQUIREMENTS

- A. Steel tubing shall have a minimum wall thickness of 0.049 in. (1.2mm)
- B. No copper tubing shall be allowed.
- C. An LPG rated flexible connector, no longer than five feet, shall be installed between the regulator and the LPG tank to protect against expansion, contraction, jarring, and vibration strains.
- D. The flexible connector and gas valve shall not extend past the body lines of the vehicle. Gas lines should preferably be installed down the center of the vehicle and away from the tire area.
- E. All interior LPG rated flexible connectors shall not exceed 5 feet in length.
- F. The fixed piping system shall be designed, installed, supported, and secured to minimize the possibility of damage due to vibration, strains, or wear and to preclude any loosening while in transit.
- G. Piping shall be installed in a protected location, preferably down the center of the vehicle and away from the tire area.
- H. **All piping shall be installed outside the vehicle, it shall be installed as follows: piping shall be under the vehicle and below any insulation or false bottom; at each point where piping passes through sheet metal or a structural member, a rubber grommet or equivalent protection shall be installed to prevent chafing. An LPG rated flexible connector can be installed to prevent stress related problems in the piping beneath the vehicle. A maximum of 18 inches is allowed.**
- I. Gas piping shall be installed to enter the vehicle through the floor directly beneath or adjacent to the appliance served.

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- J. If a branch line is installed, the tee connection shall be in the main gas line under the floor and outside the vehicle.

LPG APPLIANCE INSTALLATION ON VEHICLES

Painted Black Iron Pipe with a minimum wall thickness of 0.049 in. (1.2 mm) must be used to plumb the entire under vehicle system, with the exception of approved rubber coated flex connectors (UL-21 Stainless Steel) to connect to fuel source, where rigid pipe is unable to be installed, or when transitioning to a different support structure in order to isolate strain on the rigid system.

- A. Steel tubing shall have a minimum wall thickness of 0.049 in. (1.2mm)
- B. No copper or other type of tubing shall be allowed.
- C. An LPG rated flexible connector, no longer than five feet, shall be installed between the regulator and the LPG tank to protect against expansion, contraction, jarring, and vibration strains.
- D. The flexible connector and gas valve shall not extend past the body lines of the vehicle. Gas lines should preferably be installed down the center of the vehicle and away from the tire area.
- E. All interior LPG rated flexible connectors shall not exceed 5 feet in length and must be connected to the rigid piping system with an "Excess Flow Valve" to prevent the free flow of gas in the event of a damaged or ruptured line.
- F. The fixed piping system shall be designed, installed, supported, and secured to minimize the possibility of damage due to vibration, strains, or wear and to preclude any loosening while in transit.
- G. All piping shall be installed outside the vehicle, it shall be installed as follows: piping shall be under the vehicle and below any insulation or false bottom; at each point where piping passes through sheet metal or a structural member, a rubber grommet or equivalent protection shall be installed to prevent chafing. An LPG rated flexible connector can be installed to prevent stress related problems in the piping beneath the vehicle. A maximum of 18 inches is allowed.
- H. Gas piping shall be installed to enter the vehicle through the floor directly beneath or adjacent to the appliance served.
- I. If a branch line is installed, the tee connection shall be in the main gas line under the floor and outside the vehicle.
- J. Where the device or appliance is designed to be in operation while the vehicle is in transit, such as a cargo heater or cooler, means to stop the flow of gas in the event of a line break, such as an excess flow valve, shall be installed.
- K. Appliances shall be located so that a fire at any appliance will not block the egress of persons from the vehicle.
- L. All deep fat fryers shall have a lid over the oil vat that can be secured to prevent the spillage of cooking oil during transit. This lid should be secured always when the vehicle is in motion.
- M. Gas fired water heaters shall be properly vented to the exterior of the unit.
- N. Gas fired heating appliances and water heaters shall be equipped with automatic devices designed to shut off the flow of gas to the main burner and the pilot in the event the pilot flame is extinguished.
- O. All appliances must be rated for commercial use.

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PORTABLE FIRE EXTINGUISHERS

- A. A 2 A 10 BC fire extinguisher shall be properly mounted in each vehicle.
- B. The 2 A 10 BC fire extinguisher shall be inspected annually by a DFD licensed fire extinguisher inspector.
- C. If grease or grease vapors are produced during any cooking operations, a Class K extinguisher shall also be required.
- D. The Class K fire extinguisher shall be properly mounted and inspected annually by a DFD licensed fire extinguisher inspector.

Required Mounting Brackets and Extinguishers:**Class K Extinguisher:****2 A 10 BC Extinguisher:****EXCEPTIONS**

- A. The installation of non-stationary LP-gas cylinders/tanks for either permanent or temporary use (e.g. heating, cooking, generator, etc.) is not allowed on any property in the City and County of Denver where natural gas is available within 300 feet of the property line.

END OF DOCUMENT



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Mobile Retail Food Vendor
LPG USE/STORAGE PERMIT APPLICATION FORM

THIS FORM SHALL BE FILLED OUT AND SIGNED BY A REPRESENTATIVE OF THE BUSINESS APPLYING FOR THE PERMIT. IT SHALL BE RETURNED TO THE FIRE PREVENTION DIVISION BY EMAIL. A PERMIT WILL NOT BE ISSUED IF THE FORM IS NOT COMPLETE AND ACCOMPANIED WITH A PLOT DIAGRAM

(IF REQUESTED) AND FEE NOT PAID. NO PRE-PAYMENT FOR PERMITS ACCEPTED. PAYMENTS ARE ACCEPTED UPON RECEIVING THE \$185 INVOICE.

NAME OF BUSINESS: _____

OWNER/OPERATOR: _____

HOME ADDRESS: _____ CITY, STATE, ZIP _____

SET UP LOCATION _____ HOURS OF OPERATION _____

VIN# _____ LICENSE PLATE# _____

E-MAIL: _____ PHONE# _____

BFN/RENEWAL NUMBER: _____ TYPE OF UNIT (Truck/Trailer/Cart) _____

LPG TANK SIZE (20LB, 40LB ETC.): _____ NUMBER OF PROPANE CYLINDERS _____
(MAXIMUM 80 LBS. OF LPG/PROPANE)

DO NOT PAY UNTIL THE PRMIT HAS BEEN REVIEWED & APPROVED. YOU WILL RECEIVE AN EMAIL FOR INVOICE TO PAY ONLINE. WHEN THE PAYEMENT HAS BEEN RECEIVED YOU WILL RECEIVE AN EMAIL FOR YOUR PERMIT.

IF REQUESTED, PROVIDE A PLOT DIAGRAM (SKETCH OF THE VEHICLE) SHOWING THE LAYOUT OF APPLIANCES. INCLUDING VALVE ACCESS POINTS, FIRE EXTINGUISHER LOCATION, EMERGENCY SHUTOFFS, FUEL STORAGE TANK LOCATIONS AND LP-GAS USE/STORAGE AREAS.

I UNDERSTAND THAT THE DENVER FIRE PREVENTION PERSONNEL MAY CONDUCT A SITE FIELD INSPECTION, AND IF THE INSTALLATION DOES NOT COMPLY WITH THE DENVER FIRE CODE (2015 INTERNATIONAL FIRE CODE WITH CITY AMENDMENTS) AND PERMIT REGULATIONS, THE PERMIT MAY BE REVOKED WITHOUT A REFUND.

SIGNATURE: _____ DATE: _____

Send applications via email to: DFDMobiles@denvergov.org
For all questions call: o:720-913-3431 |c:720-454-6692
Denver Fire Department – Fire Prevention
745 West Colfax Avenue, Denver Colorado 80204