



# Food Trucks and Trailers

## Fire Safety Guidelines

### LPG Containers

- All containers shall be approved for LPG and their application. (NFPA 58 6.24.3)
- The LP-Gas supply system, including the containers, shall be installed either on the outside of the vehicle or in a recess or cabinet vapor-tight to the inside of the vehicle but accessible from and vented to the outside. (NFPA 58 6.24.3.3)
- Vents from vapor-tight cabinets shall be near the top and bottom of the enclosure and 3ft horizontally away from any opening into the vehicle below the level of the vents. (NFPA 58 6.24.3.3)
- Containers shall be mounted securely on vehicles or within the enclosing recess or cabinet. (NFPA 58 6.24.3.4)
- Container fasteners shall be designed and constructed to withstand four times the weight of the container filled with fuel. (NFPA 58 6.24.3.4(B))
- Cylinders shall have permanent protection for cylinder valves and connections. (NFPA 58 6.24.3.4(G))
- Cylinder weather protection shall be provided. (NFPA 58 6.24.3.4(H))
- Containers and Cylinders shall not be installed, transported or stored inside the vehicle. (NFPA 58 6.24.3.2)
- Containers shall not be filled beyond approved limits. (NFPA 58 6.24.9.2)
- Vehicles having containers with water capacities over 300 gallons require further approvals. Consult local Fire Marshal. (NFPA 58 table 6.24.3.1(C))

### LPG Appurtenances

- Main shut-off valves on containers shall be readily accessible. (NFPA 58 6.24.4.1(3))
- Regulators shall be installed with the pressure relief vent opening pointing vertically downward. (NFPA 58 6.24.4.2(A))
- Regulators not installed in compartments shall be equipped with a durable cover. (NFPA 58 6.24.4.2(B))
- Vehicle mounted regulators installed below the floor level shall be installed in a compartment that protects them from weather and wheel spray. (NFPA 58 6.24.4.2(C))
- Regulator compartments shall be vapor-tight to the interior of the vehicle and vented to the outside. (NFPA 58 6.24.4.2(D))
- A regulator vent outlet shall be at least 2 in. above the compartment vent opening. (NFPA 58 6.24.4.2(E))

## LPG Piping

- Steel tubing shall have a minimum wall thickness of 0.049 in. (NFPA 58 6.24.5.1(A))
- A flexible connector shall be installed between the regulator outlet and the fixed pipe system. (NFPA 58 6.24.5.1(B))
- Flexibility shall be provided in the piping between a cylinder and the gas piping system or regulator. (NFPA 58 6.24.5.1(C))
- The fixed pipe 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. (NFPA 58 6.24.5.1(F))
- Piping shall be installed in a protected location. (NFPA 58 6.24.5.1(G))
- Where piping is installed outside of a vehicle, it shall be installed as follows:
  - (1) Piping shall be under the vehicle and below any insulation or false bottom.
  - (2) Fastening or other protection shall be installed to prevent damage due to vibration or abrasion.
  - (3) At each point where piping passes through sheet metal or a structural member, a rubber grommet or equivalent protection shall be installed. (NFPA 58 6.24.5.1(H))
- Gas piping shall be installed to enter the vehicle through the floor directly beneath or adjacent to the appliance served. (NFPA 58 6.24.5.1(I))
- If a branch line is installed. The tee connection shall be located in the main gas line under the floor and outside the vehicle. (NFPA 58 6.24.5.1(J))
- Exposed parts of the fixed piping system either shall be corrosion-resistant material or shall be coated or protected to minimize exterior corrosion. (NFPA 58 6.24.5.1(K))
- Piping systems, including hose, shall be pressure tested and proven free of leaks. (NFPA 58 6.24.5.1(M))
- There shall be no fuel connections between a tractor and trailer or other vehicle units. (NFPA 58 6.24.5.2)

## LPG Appliances

- All appliances installed on vehicles shall be approved. (NFPA 58 6.24.7.2)
- Gas fired heating appliances shall be equipped with shutoffs. (NFPA 58 6.24.7.4)
- 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. (NFPA 58 6.24.7.11)
- Where an appliance is designed to be in operation while the vehicle is in transit such as a 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. (NFPA 58 6.24.7.3)
- Gas-fired heating appliances, other than ranges and illuminating appliances installed on vehicles intended for human occupancy, shall be designed or installed to provide for a complete separation of the combustion system from the atmosphere inside the vehicle. (NFPA 58 6.24.7.5)

- Appliances installed in the cargo space of the vehicle shall be readily accessible whether the vehicle is loaded or empty. (NFPA 58 6.24.7.7)
- Appliances shall be constructed or otherwise protected to minimize possible damage or impaired operation due to cargo shifting or handling. (NFPA 58 6.24.7.8)
- Appliances shall be located so that a fire at any appliance will not block egress of persons from the vehicle. (NFPA 58 6.24.7.9)
- A permanent caution plate shall be affixed to either the appliance or the vehicle, outside any enclosure, shall be adjacent to the container(s), and shall include the following instructions:

#### **Caution**

1. Be sure all appliance valves are closed before opening LPG container valve.
2. Connections at the appliances, regulators, and containers shall be checked periodically for leaks with soapy water or its equivalent.
3. Never Use a match or flame to check for leaks.
4. Container valves shall be closed when equipment is not in use. (NFPA 58 6.24.7.10)

#### **Hood System/Hood Suppression**

- A type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors. (IFC Section 609.2)
- Each required Type 1 hood shall be protected with an approved automatic fire-extinguishing system. (IFC 904.2.2)
- The ventilation system in connection with hoods shall be operated at the required rate of air movement, and classified grease filters shall be in place when equipment under the kitchen grease hood is used. (IFC 609.3.1)
- Cooking hoods shall be cleaned at regular intervals. If during an inspection it is found that the hood and related equipment has a buildup of grease, all components shall be cleaned. (IFC Section 609.3.3.2)
- The suppression systems shall be serviced at least every six months and have a current Fire Marshal's tag affixed to it. (IFC 904.12.6.2)

#### **Fire Extinguishers**

- Vehicles containing cooking equipment shall be equipped with at least one fire extinguisher with not less than a 2A10BC classification. (NFPA 58 6.24.8.1, IFC 906.3)
- A Class K fire extinguisher shall be provided for any cooking media with an appreciable depth of vegetable or animal oils or fats. (IFC 906.4, 904.12.5, UCA 15A-5-102(1))
- Portable fire extinguishers shall be located in conspicuous locations where they will be readily accessible and immediately available for use. (IFC 906.5)

### **Out of Service: Parking, Servicing and Repair**

- The fuel system shall be leak free. (NFPA 58 6.24.9.2)
- The LPG container shut off valve shall be closed when appliances are not in use. (NFPA 58 6.24.9.3)
- The vehicle shall not be parked near sources of heat, open flame, or similar sources of ignition, or near unventilated pits. (NFPA 58 6.24.9.4)

### **Fire Department Access and Scene Safety**

- Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. (IFC 503.4)
- Unobstructed access to fire hydrants shall be maintained at all times. (IFC 507.5.4)
- Approved access shall be provided and maintained for all fire protection equipment (i.e. control valves, fire department connections, etc.) to permit immediate safe operation and maintenance of such equipment. Storage of trash and other materials or objects (i.e. tables and chairs, heaters, etc.) shall not be placed or kept in such a manner that would prevent such equipment from being readily accessible. (IFC 509.2)

### **Electrical**

- All electrical hazards shall be abated. (IFC 605.1) Note: As the prevailing standard is the National Electric Code installations not complying with this standard should be approved by an electrical engineer.
- Electrical panels shall be accessible. (IFC 605.3) Note: Although the code requires a 30 inch width inspectors may use some discretion due to the limited space.
- Extension cords shall not replace permanent wiring and shall not pass through walls ceilings, floors, or under doors and shall not be subject to physical impact. (605.5) Note: Flexible cords between the generator or other power source and the food truck or trailer may be acceptable.
- Open junction boxes and open-wiring splices shall be prohibited. (605.6)
- Generators shall be installed, maintained and used in a manner that does not present a hazard to the public or vehicle occupants as approved by the Fire Code Official. Portable generator manufacturers may specify the minimum distance from the vehicle for use. Local jurisdictions may also specify a required distance from the vehicle for use. (IFC 313.1.1)
- Generators shall NOT be re-fueled during an event or when the public is present. Only to be fueled at motor vehicle fueling stations or on property owned, leased or rented by the food truck vender. (IFC 313.1.1)

## General

- Smoking is prohibited within 25 feet of the LPG container. (IFC 310, 6107.2)
  - Locations: On or adjacent to the LPG container, and at the serving window.
  - Text: 2" block letters in a contrasting color to the background. "FLAMMABLE GAS NO SMOKING WITHIN 25 FEET"

## Recommendations

- Fire officials are encouraged to patiently work with existing food trucks to bring them up to an appropriate level of safety. If a food truck has received approval under a previous code, that code should apply similar to how we enforce the code on buildings built under a previous code.
- Trucks have an annual fire inspection
- "When your feet hit the ground the chocks go down". Use wheel chocks when stopped.
- It is recommended that:
  - Only fryers controlled by a thermostat be used. No stove top fryers.
  - Fryers be covered with an approved cover when in transit.
  - Fryers be allowed to cool for a minimum of 30 minutes before transit.
  - New oil only be stored in original containers.
- Used oil, which has been drained from the fryer, not be transported in the food truck.

**Note:** Fryers are the most dangerous appliance in a food truck.

Form last updated January 8, 2018