



Lake Havasu City Fire Department Fire Prevention Bureau

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FD Specification #28 2018 IFC, §319, §607 & §904.12
Standards for Mobile Food Units (MFU)

Rev. 03/31/2021
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OVERVIEW

The mobile food preparation and vending industry is popular and rapidly expanding. There are a few predominant fire safety risks that are unique to Mobile Food (Vending) Units (MFUs), besides the normal risks on any vehicle involving engine fuels. These include flammable fuels (e.g. LPG-Propane and CNG), cooking operations, portable shelters and portable generators. The International Fire Code (IFC) and the National Fire Protection Association (NFPA) have developed codes and standards to ensure that MFUs are safely constructed and operated when following these regulations.

PURPOSE

To provide the MFU operator industry safety standards, to ensure safer operation of their vehicles for the unit operators and the public.

SCOPE

This specification is written for operators of MFUs which shall comply with IFC §319, applicable provisions of the NFPA Food Truck Safety Fact Sheet (attached), and this specification.

DEFINITIONS

1. **Authority Having Jurisdiction (AHJ)** – Term used in codes and standards to identify the legal entity, such as a building or fire official, that has the statutory authority to enforce a code and to approve or require equipment, as a unit of a governmental agency.
2. **Mobile Food Preparation Vehicle (MFPV)** - Vehicles that contain cooking equipment which produce smoke or grease-laden vapors for the purposes of preparing and serving food to the public. Vehicles intended for private recreation are not considered MFPVs.
3. **Mobile Food (Vending) Unit (MFU)** - Any motorized or non-motorized vehicle, trailer, kiosk, pushcart, stand, display, blanket, ground covering or other device designed to be portable and not permanently attached to the ground from which only food is peddled, vended, sold, served, displayed, offered for sale or given away. Includes Mobile Food Preparation Vehicles, Mobile Food Units, Mobile Food Establishments or Food Trucks.
4. **Mobile Food Vendor** – Any person who owns, controls, manages or leases a Mobile Food Unit or contracts with a person to prepare foods and vend from, drive or operate a Mobile Food Unit.
5. **Portable Shelter** - Includes tents not exceeding 400 square feet, and other enclosures or temporary membrane structures which are not subject to compliance with IFC Ch. 31.
6. **Temporary Food Service Establishment** - A food establishment that operates at a fixed location in conjunction with a single event or celebration for not more than 14 consecutive days within any permit year provided it is the same permittee, at the same location and same event. At the termination of the event the temporary food establishment shall be removed from the premises.

PERMITS & LICENSES

1. A county **Health Permit** is required from the Mohave County Department of Public Health, Environmental Health Division. **Note:** Applicant must have approval from the Lake Havasu City Planning and Zoning Division where the MFU is being operated, when applicable, prior to obtaining a health permit. For more information, call the **Mohave County DPH EHD Office** at **(928) 453-0712**.
2. A Lake Havasu City **Conditional Use Permit** may be required prior to applying for a LHC Business License. **Exception:** MFUs operating temporarily at sanctioned special events.
3. An approved **LHC Business License** is required prior to operating a MFU.
4. No Fire Department permit is required at this time. However, a fire inspection is required unless the mobile food vendor provides evidence that their mobile food unit passed a fire inspection in another AZ city or town, by the local AHJ, within the preceding 12 months, and provided that all fire protection equipment displays current service tags.

FIRE CODE REQUIREMENTS

1. **MFPVs.** Mobile Food Preparation Vehicles that are equipped with appliances that produce smoke or grease-laden vapors shall comply with IFC §319 *MFPVs*.
2. **Exhaust hoods.** Cooking equipment that produces grease-laden vapors shall be provided with a Type 1 kitchen exhaust hood in accordance with IFC §607 *Commercial Kitchen Hoods*.
3. **Fire Protection.** Cooking equipment shall be protected by automatic fire extinguishing systems in accordance with IFC §904.12 *Commercial Cooking Systems*. Fire protection systems shall be inspected at least every 6 months and display a current service tag from an approved service provider.
4. **Fire Extinguishers.** At least one minimum Class K 1.5 gallon (6 liter) portable fire extinguisher shall be provided within 30 feet of cooking appliances in accordance with IFC §906.4 Cooking Equipment Fires. ***In addition***, one minimum 2-A:10-B:C multi-purpose fire extinguisher is required within 75 feet of the MFU. All fire extinguishers must display a current service tag or be new within one year.
5. **Appliance Connection to Fuel Supply Piping.** Gas cooking appliances shall be secured in place and connected to fuel-supply piping with an appliance connector complying with ANSI Z21.69/CSA 6.16. The connector installation shall be configured in accordance with the manufacturer's installation instructions. Movement of appliances shall be limited by restraining devices installed in accordance with the connector and appliance manufacturers' instructions.
6. **Cooking Oil Storage Containers.** Cooking oil storage containers within mobile food preparation vehicles shall have a maximum aggregate volume not more than 120 gallons, and shall be stored in such a way as to not be toppled or damaged during transport.
7. **Cooking Oil Storage Tanks.** Cooking oil storage tanks within mobile food preparation vehicles shall comply with the following:
 - a. **Metallic storage tanks.** Metallic cooking oil storage tanks shall be listed in accordance with UL 80 or UL 142, and shall be installed in accordance with the tank manufacturer's instructions.

- b. **Nonmetallic storage tanks.** Nonmetallic cooking oil storage tanks shall be installed in accordance with the tank manufacturer's instructions and shall comply with both of the following:
 - 1). Tanks shall be listed for use with cooking oil, including maximum temperature to which the tank will be exposed during use.
 - 2). Tank capacity shall not exceed 200 gallons per tank.
- 8. **Tank Venting.** Normal and emergency venting shall be provided for cooking oil storage tanks.
- 9. **LP-gas Systems.** Where LP-gas systems provide fuel for cooking appliances, such systems shall comply as follows:
 - a. **Maximum aggregate volume.** The maximum aggregate capacity of LP-gas containers transported on the MFU and used to fuel cooking appliances only shall not exceed 200 pounds propane capacity.
 - b. **Protection of container.** LP-gas containers installed on the MFU shall be securely mounted and restrained to prevent movement.
 - c. **LP-gas container construction.** LP-gas containers shall be manufactured in compliance with the requirements of NFPA 58.
 - d. **Protection of system piping.** LP-gas system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.
 - e. **LP-gas alarms.** A listed LP-gas alarm shall be installed within the MFU in the vicinity of LP-gas system components, in accordance with the manufacturer's instructions. Where gas detection systems are installed, ensure that they are tested monthly. Log the tests and make available for inspection.
- 10. **CNG Systems.** Where CNG systems provide fuel for cooking appliances, such systems shall comply with §319.9.1 - §319.9.4. Contact the LHCFD for specific criteria.
- 11. **Exhaust System.** The exhaust system, including hood, grease-removal devices, fans, ducts and other appurtenances, shall be inspected and cleaned in accordance with IFC §607.3. *Commercial kitchen hoods: Operations and maintenance.*
 - a. **Inspection and Cleaning.** Hoods, grease-removal devices, fans, ducts and other appurtenances shall be inspected and cleaned within the past 6 months and display a service label from an approved service provider.
- 12. **Fuel Gas Systems.** LP-gas containers installed on the MFU and fuel-gas piping systems shall be inspected annually by an approved inspection agency or a company that is registered with the U.S. Department of Transportation to requalify LP-gas cylinders, to ensure that system components are free from damage, suitable for the intended service and not subject to leaking. Upon satisfactory inspection, the approved inspection agency shall affix a tag on the fuel gas system or within the MFU indicating the name of the inspection agency and the date of satisfactory inspection.
- 13. **Propane Main Shutoff Valve.** Ensure that the main shutoff valve is readily accessible.
- 14. **Propane Portable Containers.** Ensure that containers are upright and secured to prevent tipping over.

- 15. Propane Leak Testing.** Perform leak testing on all new gas connections of the gas system prior to operation and document leak tests. Make documentation available for review by fire inspectors or other authorized officials.
- 16. Flexible Gas Connectors.** Ensure that on gas system piping, a flexible connector is installed between the regulator and the fixed gas piping system.
- 17. Extension Cords.** Multi-plug connections, frayed/broken electrical extension cords, or cords with less than 12-gauge wiring are prohibited. Replace with approved wiring.
- 18. Tents and Membrane Structures.** Obtain a LHCFD Tent Construction Permit** for all enclosed or partially enclosed tents in excess of 400 sq. ft. and individual tents, open on all sides, in excess of 700 sq. ft. The permit fee is \$102 per tent. A current flame-retardant certificate is required per **NFPA 701**.
- 19. Portable Shelters.** Portable shelters which includes small tents, not exceeding 400 square feet, and other enclosures or temporary membrane structures, which are not subject to compliance with the fire code, must be stamped or have a sewn in label affixed demonstrating that the shelter is fire retardant to meet, at a minimum, Canvas Products Association International (CPAI 84*) Flame Retardancy standards. (*CPAI-84 is a standard for flammability of recreational tents. It was set by the Industrial Fabrics Association International.

PROCEDURE

1. Applicants wishing to operate a MFU within Lake Havasu City must:
 - a. Except for vendors temporarily operating at special events, first, obtain approval from the LHC Planning and Zoning Division where the MFU is being operated. You may be required to complete and submit a CONDITIONAL USE PERMIT application in person or via email planninginfo@lhcaz.gov. For questions, call **(928) 854-0722**.
 - b. Obtain a county Health Permit from the Mohave County Department of Public Health, Environmental Health Division. The LHC office can be reached at **(928) 453-0712**.
 - c. Contact the Lake Havasu City Fire Department for a plan review and to discuss and demonstrate applicable fire and life safety requirements **(928) 855-1141**.
 - d. Apply for and obtain a LHC Business License either by email BusinessLicense@lhcaz.gov or call (928) 453-4153.
 - e. Be prepared for a Lake Havasu City Fire Department fire and life safety inspection on or before the start date of your vending event or provide proof of a recent one.
 - f. Once approved, a **LHCFD Blue Card** hang tag will be issued. If violations are noted, correct the violation(s), as required, prior to opening to the public. Once received, display the hang tag in plain sight at the front of your concession area.

MOHAVE COUNTY SPECIFIC REQUIREMENTS

1. Commercial cooking hoods are required to vent steam and heat and to prevent grease particles from leaving the mobile food unit.
2. Commercial cooking or display equipment which produces smoke, steam, grease, mists, particulate matter, condensation, vapors, fumes, odors, or create sanitation or indoor air quality problems will require a hood.
3. Hoods shall be designed and installed to prevent grease and condensation from collecting on walls, ceilings, and dripping into food or onto food contact surfaces.

4. Canopy hoods must have at least a 6" overlap over all cooking surfaces on all open sides.
5. All hoods shall be flashed solid to the ceiling or adjacent walls.
6. All hoods must comply with the latest Uniform Mechanical Code (UMC).
7. Exhaust fans, makeup air fans and inside fan motors on units supplying make-up air shall be interlocked so they operate simultaneously and shall be operated by a single switch.
8. Deep fryers must have covers that can be secured while the mobile food unit is in transit.
9. The business name and permit number (5 digit establishment identification number with multiple number if owner has more than one unit) must be plainly visible on two sides and the back of the unit. The lettering must be at least 3 inches high with a 3/8" thick stroke.
10. All cooking of foods must be done towards the back of the booth. When barbecuing or using a grill, the equipment must be separated (roped off) from the public by at least 4 feet to protect the public from burns or splashes of hot grease.
11. Equipment containing flammable materials, such as deep-fat fryers must be on stable surfaces and shielded from the public.
12. Smoking, eating or drinking in booths while working is not allowed. All nonworking, unauthorized persons are to be kept out of the booth.
13. Overhead protection, also referred to as a *portable shelter*, is required for all food preparation, food storage and ware washing areas. Overhead protection shall be made of fire retardant materials that protect the facility from ignition, precipitation, dust, bird and insect droppings, and other contaminants.
14. Compressors, auxiliary engines, generators, and similar mechanical units that are not an integral part of the food preparation or storage equipment shall be installed completely separate from the food preparation and storage areas and accessible from the exterior for all mobile food establishments. Keep at least 10 feet away from booths and MFUs.

REFERENCES

1. *ARS – Article 7.2 – Mobile Food Vendors & Mobile Food Units*
2. *International Fire Code* (2018)
3. Mohave County Department of Public Health, Environmental Health Division Publication *Mobile Food Preparation Units, Limited and Full Service*. (2010)
4. Mobile Food Unit Fire Safety Checklist (LHCFD)
5. NFPA 52 *Vehicular Natural Gas Fuel Systems Code* (2016)
6. NFPA 58 *Liquefied Petroleum Gas Code* (2017)
7. NFPA *Food Truck Safety Fact Sheet* (2020)

Note: This FD Specification is intended to be a guide only. For full installation, fire-flow, location and distribution and maintenance requirements, refer to the references above. Where conflicts exist between this document and the applicable codes and standards, the above references must supersede.

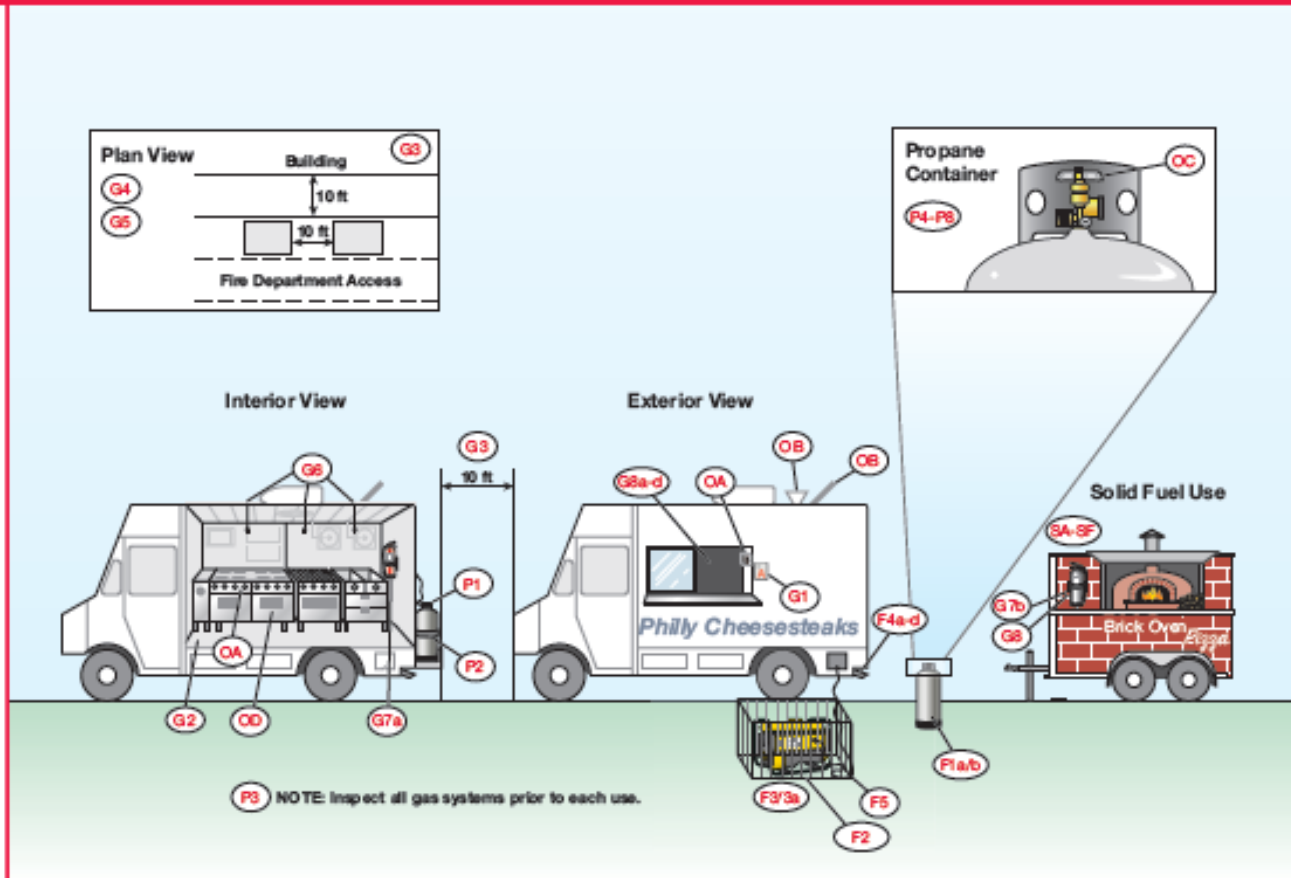
APPROVED: 
Scott Hartman, Fire Marshal

DATE: 4/9/2021



FACT SHEET

FOOD TRUCK SAFETY



NFPA code references are provided at the end of each item. The red keys correspond to the NFPA food truck safety diagram. For more detailed information, see NFPA 1 and Chapter 17 in NFPA 96.

General Safety Checklist

- ☐ Obtain license or permits from the local authorities. [1:112.8(a)] **G1**
- ☐ Ensure there is no public seating within the mobile food truck. [1:50.8.3.2] **G2**
- ☐ Check that there is a clearance of at least 10 ft away from buildings, structures, vehicles, and any combustible materials. [96:122] **G3**
- ☐ Verify fire department vehicular access is provided for fire lanes and access roads. [1:18.2.4] **G4**
- ☐ Ensure clearance is provided for the fire department to access fire hydrants and access fire department connections. [1:13.1.4; 1:13.1.5] **G5**
- ☐ Check that appliances using combustible media are protected by an approved fire extinguishing system. [96:10.12] **G6**
- ☐ Verify portable fire extinguishers have been selected and installed in kitchen cooking areas in accordance with NFPA 10. [96:10.9] **G7a**
- ☐ Where cooking appliances that use solid fuel, such as charcoal or wood, produce grease-laden vapors, make sure the appliances are protected by listed fire-extinguishing equipment. [96:15.7.1] **G7b**
- ☐ Ensure that workers are trained in the following: [96:17.10]: **G8**
 - ☐ Proper use of portable fire extinguishers and extinguishing systems [96:17.10.1(1)] **G8a**
 - ☐ Proper method of shutting off fuel sources [96:17.10.1(2)] **G8b**
 - ☐ Proper procedure for notifying the local fire department [96:17.10.1(1)] **G8c**
 - ☐ Proper procedure for how to perform simple leak test on gas connections [96:17.10.1(5)] **G8d**



FACT SHEET

FOOD TRUCK SAFETY CONTINUED

Fuel & Power Sources Checklist

- ☐ Verify that fuel tanks are filled to the capacity needed for uninterrupted operation during normal operating hours. [110.14.11.1 for carnivals only] **F1a**
- ☐ Ensure that refueling is conducted only during non-operating hours. [96:17.8.3] **F1b**
- ☐ Check that any engine-driven source of power is separated from the public by barriers, such as physical guards, fencing, or enclosures. [96:125.2.2] **F2**
- ☐ Ensure that any engine-driven source of power is shut down prior to refueling from a portable container. [110.15.4] **F3**
- ☐ Check that surfaces of engine-driven source of power are cool to the touch prior to refueling from a portable container. **F3a**
- ☐ Make sure that exhaust from engine-driven source of power complies with the following: **F4**
 - ☐ At least 12 ft in all directions from openings and air intakes [96:125.2.3(1)] **F4a**
 - ☐ At least 12 ft from every means of egress [96:8.13] **F4b**
 - ☐ Directed away from all buildings [96:125.2.3(2)] **F4c**
 - ☐ Directed away from all other cooking vehicles and operations [96:125.2.3(3)] **F4d**
- ☐ Ensure that all electrical appliances, fixtures, equipment, and wiring complies with the NFPA 70® [96:17.8.1] **F5**

Propane System Integrity Checklist

- ☐ Check that the main shutoff valve on all gas containers is readily accessible. [58:6.26.4.1(3)] **P1**
- ☐ Ensure that portable gas containers are in the upright position and secured to prevent tipping over. [58:6.26.3.4] **P2**
- ☐ Inspect gas systems prior to each use. [96:177.2.3] **P3**
- ☐ Perform leak testing on all new gas connections of the gas system. [58:6.16; 58:6.17] **P4**
- ☐ Perform leak testing on all gas connections affected by replacement of an exchangeable container. [58:6.16; 58:6.17] **P5**
- ☐ Document leak testing and make documentation available for review by the authorized official. [58:6.26.5.1(M)] **P6**
- ☐ Ensure that on gas system piping, a flexible connector is installed between the regulator outlet and the fixed piping system. [58:6.26.5.1(B)] **P7**
- ☐ Where a gas detection system is installed, ensure that it is tested monthly. [96:17.72.2] **P8**

Operational Safety Checklist

- ☐ Do not leave cooking equipment unattended while it is still hot. (This is the leading cause of home structure fires and home fire injuries.) **QA**

- ☐ Operate cooking equipment only when all windows, service hatches, and ventilation sources are fully opened. [96:12.1.1] **OB**
- ☐ Close gas supply piping valves and gas container valves when equipment is not in use. [58:6.26.8.3] **OC**
- ☐ Keep cooking equipment, including the cooking ventilation system, clean by regularly removing grease. [96:12.4] **OD**

Solid Fuel Safety Checklist (Where Wood, Charcoal, Or Other Solid Fuel Is Used)

- ☐ Fuel is not stored above any heat-producing appliance or vent. [96:15.9.2.2] **SA**
- ☐ Fuel is not stored closer than 3 ft to any cooking appliance. [96:15.9.2.2] **SB**
- ☐ Fuel is not stored near any combustible flammable liquids, ignition sources, chemicals, and food supplies and packaged goods. [96:15.9.2.7] **SC**
- ☐ Fuel is not stored in the path of the ash removal or near removed ashes. [96:15.9.2.4] **SD**
- ☐ Ash, cinders, and other fire debris should be removed from the firebox at regular intervals and at least once a day. [96:15.9.3.6.1] **SE**
- ☐ Removed ashes, cinders, and other removed fire debris should be placed in a closed, metal container. [96:15.9.3.8.1] **SF**

Learn More

- ▶ Get free digital access to NFPA codes and standards at: nfpa.org/docinfo
- ▶ Read the latest news and updates at: nfpa.org/foodtrucksafety
- ▶ Review the following and other NFPA resources at: nfpa.org
 - NFPA 1, Fire Code, 2021 Edition
 - NFPA 1 Fire Code Handbook, 2021 Edition
 - NFPA 10, Standard for Portable Fire Extinguishers, 2018 Edition
 - NFPA 58, Liquefied Petroleum Gas Code, 2020 Edition
 - LP-Gas Code Handbook, 2020 Edition
 - NFPA 70®, National Electrical Code®, 2020 Edition
 - National Electrical Code® Handbook, 2020 Edition
 - NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, 2021 Edition
 - NFPA 96: Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations Handbook, 2017 Edition



IT'S A BIG WORLD.
LET'S PROTECT IT TOGETHER.

NOTE: This information is provided to help advance safety of mobile and temporary cooking operations. It is not intended to be a comprehensive list of requirements for mobile and temporary cooking operations. Check with the local jurisdiction for specific requirements. This safety sheet does not represent the official position of the NFPA or its Technical Committees. The NFPA disclaims liability for any personal injury, property, or other damages of any nature whatsoever resulting from the use of this information. For more information, go to nfpa.org/foodtrucksafety.

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