

# Code Change No: F23-16

## Original Proposal

**Section:** 105.6.49 (New), 202 (New), 319 (New)

**Proponent:** Michael O'Brian representing the Fire Code Action Committee (FCAC@iccsafe.org)

**Add new text as follows:**

**105.6.49 Mobile Food Preparation Vehicles** A permit is required for mobile food preparation vehicles equipped with appliances that produce smoke or grease laden vapors.

**Add new definition as follows:**

**MOBILE FOOD PREPARATION VEHICLES.** Vehicles that contain cooking equipment that produce smoke or grease laden vapors for the purpose of preparing and serving food to the public. Vehicles intended for private recreation shall not be considered mobile food preparation vehicles.

**Add new text as follows:**

### **SECTION 319** **MOBILE FOOD PREPARATION VEHICLES**

**319.1 General.** Mobile food preparation vehicles that are equipped with appliances that produce smoke or grease laden vapors shall comply with this section.

**319.2 Permit Required** Permits shall be required as set forth in Section 105.6.

**319.3 Exhaust hood.** Cooking equipment that produces grease laden vapors shall be provided with a kitchen exhaust hood in accordance with Section 609.

**319.4 Fire protection.** Fire protection shall be provided in accordance with Section 319.4.1 through 319.4.2.

**319.4.1 Fire protection for cooking equipment.** Cooking equipment shall be protected by automatic fire extinguishing systems in accordance with Section 904.12.

**319.4.2 Fire extinguisher.** Portable fire extinguishers shall be provided in accordance with Section 904.12.5.

**319.5 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 manufacturer's installation instructions. Movement of appliances shall be limited by restraining devices installed in accordance with the connector and appliance manufacturer's instructions.

**319.6 Cooking oil storage containers** Cooking oil storage containers within mobile food preparation vehicles shall have a maximum aggregate volume not to exceed 120 gallons (454 L), and shall be stored in such a way as to not be toppled or damaged during transport.

**319.7 Cooking oil storage tanks** Cooking oil storage tanks within *mobile food preparation vehicles* shall comply with Section 319.7.1 through 319.7.5.

**319.7.1 Metallic storage tanks** Metallic cooking oil storage tanks shall be listed in accordance with UL 142 or UL 80, and shall be installed in accordance with the tank manufacturer's instructions.

**319.7.2 Nonmetallic storage tanks** Nonmetallic cooking oil storage tanks shall be installed in accordance with the tank manufacturer's instructions and shall also comply with all 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 (757 L) per tank.

**319.7.3 Cooking oil storage system components.** Metallic and nonmetallic cooking oil storage system components shall include but are not limited to piping, connections, fittings, valves, tubing, hose, pumps, vents and other related components used for the transfer of cooking oil.

**319.7.4 Design criteria.** The design, fabrication and assembly of system components shall be suitable for the working pressures, temperatures and structural stresses to be encountered by the components.

**319.7.5 Tank venting.** Normal and emergency venting shall be provided for cooking oil storage tanks.

**319.7.5.1 Normal vents** Normal vents shall be located above the maximum normal liquid line, and shall have a minimum effective area not smaller than the largest filling or withdrawal connection. Normal vents are not required to vent to the exterior.

**319.7.5.2 Emergency vents.** Emergency relief vents shall be located above the maximum normal liquid line, and shall be in the form of a device or devices that will relieve excessive internal pressure caused by an exposure fire. For nonmetallic tanks, the emergency relief vent shall be allowed to be in the form of construction. Emergency vents are not required to discharge to the exterior.

**319.8 LP-gas systems.** Where LP-gas systems provide fuel for cooking appliances, such systems shall comply with Chapter 61 and Sections 319.8.1 through 319.8.5.

**319.8.1 Maximum aggregate volume.** The maximum aggregate capacity of LP-gas containers transported on the vehicle and used to fuel cooking appliances only shall not exceed 200 pounds propane capacity.

**319.8.2 Protection of container.** LP-gas containers installed on the vehicle shall be securely mounted and restrained to prevent movement.

**319.8.3 LP-gas container construction** LP-gas containers shall be manufactured in compliance with the requirements of NFPA 58.

**319.8.4 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.

**319.8.5 LP-gas alarms.** A listed LP-gas alarm shall be installed within the vehicle in the vicinity of LP-gas system components, in accordance with manufacturer's instructions.

**319.9 CNG Systems.** Where CNG systems provide fuel for cooking appliances, such systems shall comply with Sections 319.9.1 through 319.9.4.

**319.9.1 CNG containers supplying only cooking fuel.** CNG containers installed solely to provide fuel for cooking purposes shall be in accordance with sections 319.9.1.1 through 319.9.1.3

**319.9.1.1 Maximum Aggregate Volume.** The maximum aggregate capacity of CNG containers transported on the vehicle shall not exceed 1,300 pounds water capacity.

**319.9.1.2 Protection of container.** CNG containers shall be securely mounted and restrained to prevent movement. Containers shall not be installed in locations subject to a direct vehicle impact.

**319.9.1.3 CNG container construction.** CNG containers shall be a NGV-2 cylinder.

**319.9.2 CNG containers supplying transportation and cooking fuel.** Where CNG containers and systems are used to supply fuel for cooking purposes in addition to being used for transportation fuel, the installation shall be in accordance with NFPA 52.

**319.9.3 Protection of system piping.** CNG system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.

**319.9.4 Methane alarms.** A listed methane gas alarm shall be installed within the vehicle in accordance with manufacturer's instructions.

**319.10 Maintenance.** Maintenance of systems on mobile food preparation vehicles shall be in accordance with Sections 319.10.1 through 319.10.3.

**319.10.1 Exhaust system.** The exhaust system, including hood, grease-removal devices, fans, ducts and other appurtenances, shall be inspected and cleaned in accordance with Section 609.3.

**319.10.2 Fire protection systems and devices.** Fire protection systems and devices shall be maintained in accordance with Section 901.6.

**319.10.3 Fuel -gas systems.** LP-gas containers installed on the vehicle 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 of damage, suitable for the intended service and not subject to leaking. CNG containers shall be inspected every three years in a qualified service facility. CNG containers shall not be used past their expiration date as listed on the manufacturer's container label. Upon satisfactory inspection, the approved inspection agency shall affix a tag on the fuel-gas system or within the vehicle indicating the name of the inspection agency and the date of satisfactory inspection.

**Reason:** This proposal addresses commercial mobile food preparation vehicles. Recent fire incidents have shown a need regulate these vehicles. This proposal addresses concerns with the cooking operations and with the fuel systems for cooking appliances. With respect to cooking operations, this proposal relies heavily on existing IFC code sections from Chapter 6 and Chapter 9 in addressing fire suppression, fire extinguisher, appliance connection, and cooking oil storage tanks. Code language is added to address LP-gas and CNG, which are common fuel gas systems utilized on these vehicles. This proposal addresses the maximum volume of fuel gas, fuel gas container construction, fuel gas system piping, and gas alarm sensors. In addition, this proposal sets forth a maintenance requirement for both LP-gas and CNG fuel gas systems, including the required schedule for inspection of fuel gas containers and fuel gas piping systems. Companion code proposals are submitted to add a definition of "Mobile Food Preparation Vehicle" and to add an operational permit requirement for mobile food preparation vehicles.

This proposal is submitted by the ICC Fire Code Action Committee (FCAC). The FCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance assigned International Codes with regard to fire safety and hazardous materials in new and existing buildings and facilities and the protection of life and property in wildland urban interface areas. In 2014 and 2015 the Fire-CAC has held 5 open meetings. In addition, there were numerous conference calls, Regional Work Group and Task Group meetings for the current code development cycle, which included members of the committees as well as any interested parties, to discuss and debate the proposed changes. Related documentation and reports are posted on the FCAC website at: [FCAC](#)

**Cost Impact:** Will increase the cost of construction

This proposal will increase costs by requiring fire protection systems, standards for construction, permit fees, and maintenance costs, which have not been required in the past.

**Report of Committee Action  
Hearings**

**Committee Action:**

**Approved as Submitted**

**Committee Reason:** The proposal was approved as it addresses the concerns with cooking operations as we would for tents. Precedence is there to regulate vehicles as the IFC regulates tank trucks and forklifts. The issue is about what happens when the truck is parked versus the transportation aspect associated with these vehicles. It was felt that the scope of the IFC would allow the regulation of such trucks as it relates to cooking operations and location of operations.

**Assembly Action:**

**None**

**Final Action Results**

**F23-16**

**AS**

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