



Technical Bulletin #19-001  
Jan. 31, 2019 / 2017 OFC (Post Errata)

**This Technical Bulletin (TB) reflects amendments to the 2017 Ohio Fire Code that became effective January 5, 2019. This TB supersedes all prior TB's regarding mobile food units.**

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## Ohio Regulations Regarding Mobile Food Units

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Referenced Codes and Standards: OAC § 1301:7-7-3(T); OFC § 320  
OAC § 1301:7-7-2(B); OFC § 202  
OAC § 1301:7-7-9(F); OFC § 906  
NFPA 58 (2014)  
NFPA 70 (2017)  
ANSI Z21-69-2015/CSA 6.6-2015

New language was added to the 2017 Ohio Fire Code (OFC) at section 320 to establish basic safety measures for mobile food units; those rules became effective December 15, 2017. That language was then amended via an errata package; the amended language became effective on January 5, 2019. This TB highlights those changes and the current law in Ohio. Section I focuses on the amendments to the prior mobile food units provisions. Section II is a review of language that was not changed in the errata package. A checklist that can be used during inspections follows. Finally, a red-lined version of the text of OFC section 320 is located at the end of this TB so all changes to the mobile food unit rules can be seen in context.

First, however, a review of what a 'mobile food unit' is. The definition of mobile food unit was added in the 2017 OFC and has not change. It is located in OFC Rule 2, and is as follows:

***"Mobile food unit."** Any apparatus or equipment that is used to cook, prepare or serve food, and that routinely changes or can change location and is operated from a moveable vehicle or apparatus, including but not limited to motorized vehicles, trailers, and hand propelled carts.*

### I. New and Amended Language

#### A. **Distance and Separation Requirements** (OFC section 320.7)

The clear space separation distance between a mobile food unit and other mobile food units has been reduced from ten (10) feet to three (3) feet. Because of this reduction in the required separation between mobile food units and other mobile food units, the language that previously existed to allow the local authority having jurisdiction (AHJ) to reduce the separation distance between mobile food units to seven (7) feet was also eliminated. **Therefore, under the current law, while parked and in operation, mobile food units that use or contain a generator or fuel source other than the vehicle fuel tank cannot be closer than three (3) feet to other mobile food units.**

The clear space separation distance between mobile food units and the entrances and exits of buildings or structures and combustible materials was not reduced. **While parked and in operation mobile food units that use or contain a generator or fuel source other than the vehicle fuel tank must still be ten (10) feet from entrances and other exits to buildings and structures and combustible materials.**

#### **B. Location and Installation Requirements (OFC section 320.6.2)**

Most of the location and installation provisions did not change. However, prior language that said all vehicle mounted propane tanks had to be at least 36 inches above the ground was amended. Now, propane tanks that are secured to the rear of the vehicle have to be 30 inches above the ground. Decreasing the 36" requirement to 30" still offers protection from vehicle impact for rear mounted tanks, but allows more placement flexibility. Limiting the distance requirement to rear mounted tanks allows for tanks to be mounted on the tongue of a trailer.

New language was also added in this section to allow tanks to be removed from the mobile food unit while the mobile food unit is in operation. When removed, the tanks must be secured to a stationary object or otherwise securely stabilized to prevent overturn or damage. Prior language required the tanks to be mounted to the vehicle. However, some vendors remove the tanks when they arrive at an operating location and the new language accommodates that type of operation.

This section was also amended to delete language that was unintentionally left at the end of the first paragraph (i.e., "and below the level of the vents" was deleted from OFC sec. 320.6.2(i)). Language was added at OFC sec. 320.6.2(ii)(b) and (h) to require that materials and devices used to secure LP-gas containers be made of non-combustible materials.

All other location and installation requirements remain in effect. For a summary of the requirements that did not change, please see **Section II**, below.

#### **C. Piping and Connectors (OFC section 320.6.3)**

The 2017 OFC set forth many requirements for piping and connectors. Although the majority of those provisions were not changed in the errata package, some of the piping and connector requirements were amended and some deleted.

Perhaps the biggest change to the piping and connector requirements is the deletion of their retroactive applicability. The 2017 OFC required all mobile food units (new and existing) to comply with the piping and connector requirements by December 31, 2018. That retroactive language was deleted in the errata package. So, all mobile food units built after January 5, 2019 must comply with the piping requirements as amended in the errata package. The piping requirements now do not apply to older units unless perhaps they are altered or constitute a distinct hazard.

Piping does still have to be installed in a protected location. However, if the piping is installed outside the vehicle it does not still have to be under the vehicle and below any insulation. That provision was deleted. The following provisions were also deleted:

- Language that required piping to enter the vehicle through the floor directly beneath or adjacent to the appliance served was deleted.
- Language that required the tee connection for a branch line to be located in the main gas line under the floor and outside the vehicle was deleted.
- Language that required exposed parts of the fixed piping system to be of corrosion resistant material or coated or protected was also deleted.

New language was added to the OFC to require flexible connectors installed between apparatus and the piping system to be installed per ANSI Z21-69-2015/CSA 6.6-2015.

All other piping and connector requirements remain in effect. For a summary of the requirements that did not change, please see **Section II**, below.

#### **D. Containers (OFC section 320.6.1)**

The 2017 OFC stated that only ASME mobile LP-Gas containers could be used in mobile food trucks. This was an oversight. Therefore, language was added to allow not only certified ASME containers, but also DOTn certified containers as well.

#### **E. Electrical Wiring and Equipment (OFC section 320.9)**

Prior language that required electrical wiring to be contained in exposed conduit was deleted. Electrical wiring does not have to be in exposed conduit. The remainder of the section was restructured to reflect the deleted language.

#### **F. Portable Fire Extinguishers (OFC section 320.3)**

All mobile food units must have one 5-pound ABC portable fire extinguisher within the unit and readily available to the unit operator. An exception was added in the errata package for open air hand carts that do not have fossil fuel powered equipment. Open air hand carts that do not have fossil fuel powered equipment do not have to have a portable fire extinguisher.

In addition to the one 5-pound ABC portable fire extinguisher that mobile food units are required to have, all units that have cooking equipment that involves solid fuels or vegetable or animal oils and fats were also required to have a Class K extinguisher. This provision has been amended to delete the reference to 'solid fuels.' Therefore, mobile food units with cooking equipment that involves only solid fuels (such as a wood burning pizza oven) do not have to have a Class K portable fire extinguisher. However, any unit that has any cooking equipment that involves vegetable or animal oils and fats is still required to have a Class K portable fire extinguisher (in addition to the one 5-pound ABC portable fire extinguisher that they are required to have).

This section was also amended to correct typographical errors in cited references.

### **G. Carbon Monoxide Detection** (OFC section 320.2.3)

The 2017 OFC required that all mobile food units have at least one listed carbon monoxide (CO) detection device except for open air hand propelled carts. The rule requiring at least one listed CO detection device in all mobile food units did not change. The exception, however, was amended in the errata package and now does not reference open air hand propelled carts. The new exception states that mobile food units that are not equipped with fossil fuel powered equipment and that do not otherwise produce CO during operation do not have to have CO detection. All other mobile food units must have at least one listed CO detection device.

### **H. Egress** (See OFC section 320.4)

Language added in the 2017 OFC stated that all mobile food units that operate commercial cooking equipment must have two accessible means of egress remotely located from each other. In the errata package, the language was amended to state that the two accessible means of egress are required while the commercial cooking equipment is being operated. When the commercial cooking equipment is not being operated, the two means of egress do not necessarily have to be accessible. The change in the language allows a serving window (as long as it is 5.7 square feet) to serve as a means of egress but doesn't require it to be accessible unless the cooking equipment is being used.

In addition to the above changes, one non-substantive grammatical correction was made to the mobile food unit rules in the errata package: rule references in section 320.6 were corrected. **All other OFC mobile food unit rules remain the same and were not affected by the errata package. A summary of the remaining rules follows.**

## **II. Existing Mobile Food Unit Requirements Not Affected by the Errata Package**

### **A. Scope** (OFC sec. 320.1)

- The mobile food unit rules apply to all mobile food units operated in the State of Ohio.

### **B. General** (OFC sec. 320.2)

- Mobile food units cannot block fire lanes, fire hydrants, or other fire protection equipment.
- LP-Gas fueled equipment cannot be operated while the mobile food unit is in transit.

**Exception:** LP-Gas fueled equipment can be operated while the mobile food unit is in transit **if** the equipment is designed for operation while it is in transit (such as a cargo heater) and the equipment has a mechanism in place to stop fuel flow in the event of a line break (such as an excess flow valve). If the equipment does not meet both of these parameters, it cannot be operated while the mobile food unit is in transit.

**C. Portable Fire Extinguishers** (OFC sec. 320.3)

- The provisions of OFC section 906 apply regarding the installation, servicing, testing, inspection and maintenance of all portable fire extinguishers contained or used in a mobile food unit.

**D. Smoking** (OFC sec. 320.5)

- Smoking is prohibited inside all mobile food units. If a mobile food unit has a fuel source other than the vehicle fuel tank, smoking is also prohibited within 10 feet of the unit.
- All mobile food units must have “no smoking” signs conspicuously posted **inside** the unit.
- All mobile food units must also have “no smoking” signs **outside** the unit in the vicinity of any location where compressed gas is stored or kept; the sign(s) must be visible to the public.
- All “no smoking” signs must be in English and must have a dark background with lettering in a contrasting color. The lettering must be at least 4 inches tall and have a minimum brush stroke width of 1 inch.

**E. LP-Gas** (OFC sec. 320.6)

- LP-Gas containers must comply with the mobile food unit rules and with OFC rules 53, 57, 58, and 60.

**F. Containers** (OFC sec. 320.6.1)

- LP-Gas containers installed in the enclosed spaces of a mobile food unit must have a maximum allowable working pressure of 312 psi (2.2 MPag) or higher.
- LP-Gas containers installed on the exterior of a mobile food unit must have a maximum allowable working pressure of 250 psi (1.7 MPag) or higher.
- All propane tanks must be kept in a secure manner at all times.
- The maximum aggregate capacity of LP-Gas containers in a mobile food unit cannot exceed 200-gallon aggregate water capacity.

**G. Location and Installation** (OFC sec. 320.6.2)

- LP-Gas supply systems that are used for a mobile food unit (including the containers) can be installed in one of two locations:
  - 1) outside of the vehicle, or

- 2) in a recess or cabinet that is vapor tight to the inside of the vehicle but accessible from and vented to the outside with vents located near the top and bottom of the enclosure and 3 feet (1 m) horizontally away from any opening into the vehicle.
- LP-Gas containers (unless they are removed during operation activities as discussed in **Section I**) must be securely mounted on the vehicle or within an enclosing recess or cabinet.
  - LP-Gas containers must be kept in a secure manner at all times.
  - LP-Gas containers must comply with all of the following:
    - Cylinders must be located in such a manner that minimizes exposure to excessive temperature rises, physical damage, and/or tampering.
    - LP-Gas containers cannot be installed on the roof of a mobile food unit.
    - LP-Gas containers can be mounted within the vehicle housing, but the housing must be secure to the vehicle and any removable parts of the housing must be secured to the housing while the mobile food unit is in transit.
    - All LP-Gas container valves, appurtenances, and connections must be protected to prevent damage from accidental contact with stationary objects, loose objects, stones, mud, and/or ice.
    - All LP-Gas container valves, appurtenances, and connections must be protected from damage due to overturn or similar vehicular accident.
    - LP-Gas cylinders must have permanent protection for cylinder valves and connections.
    - Weather protection must be provided for all LP-Gas cylinders that are located on the outside of a mobile food unit.
    - Any device or material used to secure an LP-Gas container must be made of non-combustible material.

#### **H. Piping and Connectors** (OFC sec. 320.6.3)

- All piping must be installed per NPFA 58 (2014), section 6.9.3.
- All steel tubing must have a minimum wall thickness of 1.2 mm.
- To protect against expansion, contraction, jarring, and vibration strains, a flexible connector must be installed between any regulator outlet and the fixed piping system.

- Flexibility must be provided between a cylinder and the gas piping system or regulator.
- Flexible connectors must be installed in accordance with NFPA 58 (2014), section 6.9.6.
- Flexible connectors that are longer than the length allowed in the OFC cannot be used unless they are approved.
- Fuel lines that incorporate hose cannot be used unless they are approved.
- Fixed piping systems used in a mobile food unit must be designed, installed, supported and secured in such a manner as to minimize the possibility of damage due to vibration, strains, or wear, and in such a manner to preclude loosening while in transit.
- Piping must be installed in a secure location.
  - Piping must be fastened or have other protection to prevent damage due to vibration or abrasion.
  - A rubber grommet or equivalent protection must be installed to prevent chafing at each point where piping passes through sheet metal or a structural member.
- Isolated sections of liquid piping must have hydrostatic relief valves; they must be installed in accordance with NFPA 58 (2014), section 6.13.
- All piping systems (including hose) must be pressure tested and must be proven free of leaks in accordance with NFPA 58 (2014), section 6.14.

**I. Emergency Shut Off Controls (OFC sec. 320.6.4)**

- All mobile food units that use LP-Gas must have marked exterior emergency shut-off controls. The controls must be readily distinguishable and accessible and must have a quarter-turn manual gas ball valve.
- Emergency shut-off controls must be signed. Signage must be permanently mounted at the location of the controls and must state: “EMERGENCY GAS SHUT-OFF VALVE.” Signage must be clearly visible and must remain unobscured at all times. Signs must be weather resistant and of contrasting colors, and must be readable from a distance of 25 feet.

**J. Generators (OFC sec. 320.8)**

- Generators that service a mobile food unit cannot be fueled while the mobile food unit is in operation.

- Generators cannot be fueled while the generator is in use.
- Generators cannot be fueled until the generator has been turned off and the surface temperature of both the engine and the fuel tank are below the autoignition temperature of the fuel.
- Generators cannot be operated, used or fueled within the occupant space of the mobile food unit.

**K. Wiring** (OFC sec. 320.9)

- All electrical wiring and equipment in a mobile food unit must be installed in accordance with NFPA 70 (2017).

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This Technical Bulletin is intended only as an informational tool. Affected individuals and code enforcement officials should consult their legal advisor to determine specific requirements, their applicability, and courses of action that should be taken to ensure compliance with all applicable requirements and standards.

## Mobile Food Unit Inspection Form

Business Name: \_\_\_\_\_

Business Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

VIN or Manufacture ID: \_\_\_\_\_ Owner's Name: \_\_\_\_\_

All Mobile Food Units	Yes*	No	N/A
<b>Carbon Monoxide detection</b>			
Is there at least one carbon monoxide detection device in the unit? (except where no CO is produced)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Portable Fire Extinguishers</b>			
Is there at least one 5# ABC portable fire extinguisher in the unit? (except open air hand propelled carts)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the extinguisher readily accessible by unit operator?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was each fire extinguisher installed and is it being maintained in accordance with OFC sec. 906?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Electrical Equipment and Wiring</b>			
Is all electrical equipment and wiring in the mobile food unit installed per NFPA 70 (2017)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>No Smoking Signs</b> (no smoking in unit) (no smoking w/i 10' of unit if there is a fuel source other than vehicle fuel tank)			
Are "no smoking" signs conspicuously posted inside the mobile food unit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If compressed gas is stored or kept, are there also "no smoking" signs posted outside the unit in the vicinity of every location where the gas is stored or kept?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Generators</b>			
Is the generator being fueled while the mobile food unit is in operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the generator being fueled while the generator is in use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the generator turned off and the surface temperature of both the engine and the fuel tank being cooled to below the autoignition temperature of the fuel before the generator is being fueled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the generator being operated, used or fuel within the occupant space of the mobile food unit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Not Obstructing Fire Protection Equipment</b>			
Does the mobile food unit block fire lanes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the mobile food unit block fire hydrants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the mobile food unit block other fire protection equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Separation Distances</b> (for units with a generator or fuel source other than the vehicle fuel tank)			
Is the mobile food unit separated from other mobile food units by a clear space distance of <b>3 feet</b> ? (not including awnings and other appurtenances)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the mobile food unit separated from entrances and other exits of buildings or structures by a clear space distance of <b>10 feet</b> ? (not including awnings and other appurtenances)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the mobile food unit separated from combustible materials by a clear space distance of <b>10 feet</b> ? (not including awnings and other appurtenances)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Mobile Food Units with Commercial Cooking Equipment</b>			
<b>Portable Fire Extinguishers</b>			
If the unit uses cooking equipment that involves vegetable or animal oils and fats, is there at least one Class K portable fire extinguisher in the unit? (in addition to the one 5-pound ABC extinguisher)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was each fire extinguisher installed and is it being maintained in accordance with OFC sec. 906?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Egress</b>			
Are there at least 2 means of egress in the unit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the means of egress remotely located from each other?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the means of egress at least 5.7 square feet?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Mobile Food Units with LP-Gas</b>			
If LP-Gas equipment is being used while unit is in transit, is the equipment designed for operation while in transit (ex: cargo heater) <b>and</b> does the equipment have a mechanism in place to stop fuel flow in the event of a line break (ex: excess flow valve)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Emergency Shut-off Controls</b>			
Does the mobile food unit have marked exterior emergency shut off controls?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the controls readily distinguishable and accessible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do the controls have a quarter-turn manual gas ball valve?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do the controls have permanent signage mounted at the location of the controls that states: "EMERGENCY GAS SHUT-OFF VALVE"?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the signage clearly visible and unobscured?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments: \_\_\_\_\_

Is the signage weather resistant and of contrasting colors?			
Is the signage readable from a distance of 25 feet?			
<b>LP-Gas Storage, Use and Handling (See also OFC Rules 53, 57, 58, 61)</b>			
<b>Containers</b>			
Are only certified ASME or DOTn mobile LP-Gas containers being used?			
Do all LP-Gas containers installed in the enclosed spaces of the mobile food unit have a maximum allowable working pressure of 312 psi (2.2 MPag) or higher?			
Do all LP-Gas containers installed on the exterior of the mobile food unit have a maximum allowable working pressure of 250 psi (1.7 MPag) or higher?			
Are all propane tanks kept in a secure manner?			
Is the maximum aggregate capacity of all LP-Gas containers in the mobile food unit 200-gallons aggregate water capacity or less?			
<b>Location and Installation</b>			
Are all LP-Gas supply systems installed either outside the vehicle or in a recess or cabinet?			
If in a recess or cabinet, is the recess or cabinet vapor tight to the inside of the vehicle but accessible from and vented to the outside?			
If in a recess or cabinet, are there also vents located near the top and bottom of the enclosure and 3 feet horizontally away from any opening into the vehicle?			
Unless they have been removed during operation activities, are LP-Gas containers securely mounted on the vehicle or within an enclosing recess or cabinet?			
If LP-Gas containers have been removed during operation activities, are all propane tanks secured to a stationary object or otherwise securely stabilized to prevent movement, overturn and damage?			
Are LP-Gas containers secured with non-combustible material or devices?			
Are cylinders located in such a manner as to minimize exposure to excessive temperature rises, physical damage, and/or tampering?			
If propane tanks are mounted to the rear of the vehicle, are they mounted with a minimum 30-inch clearance from the bottom of the tank to the ground?			
Are LP-Gas containers installed on the roof of a mobile food unit? (they cannot be)			
If LP-Gas containers are mounted within the vehicle housing, is the housing secure to the vehicle and are all removable parts of the housing secured to the housing while the mobile food unit is in transit?			
Are all LP-Gas container valves, appurtenances, and connections protected to prevent damage from accidental contact with stationary objects, loose object, stones, mud, and/or ice?			
Are all LP-Gas container valves, appurtenances, and connections protected from damage due to overturn or similar vehicular accident?			
Do LP-Gas cylinders have permanent protection for cylinder valves and connections?			
If LP-Gas cylinders are located on the outside of a mobile food unit, is weather protection provided?			
Are all devices or materials used to secure an LP-Gas container made of non-combustible material?			
<b>Piping and Connectors</b>		<i>Licensed propane company or Contractor must fill out this section. Initial here</i>	
Is all piping installed per NPFA 58 (2014), section 6.9.3?			
Does all steel tubing have a minimum wall thickness of 1.2 mm?			
Is a flexible connector installed between any regulator outlet and the fixed piping system (to protect against expansion, contraction, jarring, and vibration strains)?			
Is flexibility provided between cylinders and the gas piping system or regulator?			
Are flexible connectors installed in accordance with NFPA 58 (2014), section 6.9.6?			
Are flexible connectors that are installed between apparatus and the piping system installed in accordance with ANSI Z21-69-2015/CSA 6.6-2015?			
If there are any flexible connectors that are longer than the length allowed in the OFC, have they been approved?			
If there are any fuel lines that incorporate hose, have they been approved?			
Are fixed piping systems designed, installed, supported, secured in such a manner as to minimize the possibility of damage due to vibration, strains, or wear, and in such a manner to preclude loosening while in transit?			
Is piping installed in a protected location?			
Is piping fastened or does it have other protection to prevent damage due to vibration or abrasion?			
Is a rubber grommet or equivalent protection installed to prevent chafing at each point where piping passes through sheet metal or a structural member?			
Do isolated sections of liquid piping have hydrostatic relief valves and are they installed in accordance with NPFA 58 (2014), section 6.13?			
Have all piping systems (including hose) been pressure tested and proven free of leaks in accordance with NPFA 58 (2014), section 6.14?			

Fire Inspector Use Only

Approved: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_ Inspector: \_\_\_\_\_

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Failed: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_ Inspector: \_\_\_\_\_

Re-Inspection \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_ Inspector: \_\_\_\_\_