



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.

TB 19-001 Jan. 31, 2019 / 2017 OFC (Post Errata)

## **Ohio Regulations Regarding Mobile Food Units**

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 <u>not</u> 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 <u>all</u> vehicle mounted propane tanks had to be at least 36 inches above the ground was amended. Now, <u>propane tanks that are secured to the rear of the vehicle</u> 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 <u>not</u> 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 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 stoke 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 <u>all</u> 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 though sheet metal or a structural member.
- Isolated sections of liquid piping must have hydrostatic relief valves; they must be installed in accordance with NPFA 58 (2014), section 6.13.
- All piping systems (including hose) must be pressure tested and must be proven free of leaks in accordance with NPFA 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).

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 Checklist**

\* A check mark in any box that is <u>not</u> shaded green may indicate a violation of the Ohio Fire Code (unless the condition is not applicable).

All Mobile Food Units	Yes*	No	N/A
Carbon Monoxide detection			
Is there at least one carbon monoxide detection device in the unit? (except where no CO is produced)			
Portable Fire Extinguishers			
Is there at least one 5# ABC portable fire extinguisher in the unit? (except open air hand propelled carts)			
Is the extinguisher readily accessible by unit operator?			
Was each fire extinguisher installed and is it being maintained in accordance with OFC sec. 906?			
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Electrical Equipment and Wiring			
Is all electrical equipment and wiring in the mobile food unit installed per NFPA 70 (2017)?			
No Smoking Signs (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?			
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?			
violitity of every location where the gas is stored or kept:			
Generators			
Is the generator being fueled while the mobile food unit is in operation?			
Is the generator being fueled while the generator is in use?			
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?			
Is the generator being operated, used or fuel within the occupant space of the mobile food unit?			
Not Obstructing Size Protection Equipment			
Not Obstructing Fire Protection Equipment			
Does the mobile food unit block fire lanes?			
Does the mobile food unit block fire hydrants?			
Does the mobile food unit block other fire protection equipment?			
Separation Distances (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 3 feet?			
(not including awnings and other appurtenances)			
Is the mobile food unit separated from entrances and other exits of buildings or structures by a clear			
space distance of 10 feet? (not including awnings and other appurtenances)			
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)			
Mobile Food Units with Commercial Cooking Equipment			
Portable Fire Extinguishers			
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)			
Was each fire extinguisher installed and is it being maintained in accordance with OFC sec. 906?			
Egress			
Are there at least 2 means of egress in the unit?			
Are the means of egress remotely located from each other?			
Are the means of egress at least 5.7 square feet?			
Mobile Food Units with LP-Gas			
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)?			
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Emergency Shut-off Controls			
Does the mobile food unit have marked exterior emergency shut off controls?			
Are the controls readily distinguishable and accessible?			
Do the controls have a quarter-turn manual gas ball valve?			
Do the controls have permanent signage mounted at the location of the controls that states:			
"EMERGENCY GAS SHUT-OFF VALVE"?			
Is the signage clearly visible and unobscured?			

Is the signage weather resistant and of contrasting colors?				
Is the signage readable from a distance of 25 feet?				
15 the signage readable from a distance of 20 feet:				
LP-Gas Storage, Use and Handling (See also OFC Rules 53, 57, 58, 61)				
Containers				
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?				
Location and Installation				
Location and Installation  Are all LD Case supply systems installed either systems the vehicle or in a recess or sehinet?	I			
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 propone 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?				
Dining and Organization				
Piping and Connectors	1			
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 flastened 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 though 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?				
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#### 1301:7-7-02 **Definitions**

#### (B) Section 202 General definitions

"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.

#### 1301:7-7-03 General Requirements

#### (T) Section 320 Mobile food units

**320.1 Scope.** This paragraph applies to all mobile food units operated within this state.

- 320.2 General. In addition to other applicable provisions of this code, all mobile food units being operated in this state shall comply with the provisions of this paragraph and with all applicable provisions of this code for the type of cooking performed.
  - (a) 320.2.1 Obstructions of fire lanes and equipment. Mobile food units shall not block fire lanes, fire hydrants, or other fire protection devices and equipment.
  - (b) 320.2.2 Operation of fuel source during transit. LP-Gas fueled equipment shall not be operated during transit unless the equipment meets both of the following:
    - (i) The equipment is designed to be in operation while the vehicle is in transit, such as cargo heaters or coolers; and
    - (ii) There is a means installed to stop the flow of gas in the event of a line break, such as an excess flow valve.
  - (c) 320.2.3 Carbon monoxide detection. All mobile food units shall be equipped with at least one listed carbon monoxide detection device.

Exception: Carbon monoxide detectors shall not be required in open air hand propelled carts mobile food units that are not equipped with fossil fuel powered equipment (such as generators or vehicle fuel tanks) and that do not otherwise produce carbon monoxide during operation.

**320.3 Portable fire extinguishers.** All mobile food units shall have a minimum of one 5-pound ABC portable fire extinguisher located within the unit and readily accessible by the operator of the unit.

<u>Exception:</u> Open air hand carts that do not have fossil fuel powered equipment.

- (a) 320.3.1 Class K portable fire extinguishers. In addition to the portable fire extinguisher required in paragraph (T)(3)(320.3) of this rule, all mobile food units that contain cooking equipment involving solid fuels or vegetable or animal oils and fats shall also be protected by at least one Class K rated portable fire extinguisher in accordance with paragraphs (D)(11)(e)(904.11.5) to (D)(11)(e)(ii)(904.11.5.2) (D)(12)(e)(904.12.5) to (D)(12)(e)(ii)(904.12.5.2) of rule 1301:7-7-09 of the Administrative Code.
- (b) 320.3.2 Installation and maintenance. All portable fire extinguishers located within or at a mobile food unit shall be installed, serviced, tested, inspected and maintained in accordance with paragraph (F)(906) of rule 1301:7-7-09 of the Administrative Code.
- **320.4 Egress.** All mobile food units that operate while operating commercial cooking equipment shall have two accessible means of egress remotely located from each other.
  - (a) 320.4.1. No means of egress required by this paragraph shall be smaller than 5.7 square feet.
- **320.5 Smoking.** Smoking shall be prohibited inside of and within 10 feet of any mobile food unit that has any fuel source other than the vehicle fuel tank.
  - (a) 320.5.1. "No Smoking" signs shall be conspicuously posted inside each mobile food unit, outside each mobile food unit in the vicinity of any location where compressed gas is stored or kept, and in a location that is visible to the public.
  - (b) 320.5.2. "No Smoking" signs shall be in English, shall have a dark background, and shall have lettering in a contrasting color that is at least 4 inches tall and with a minimum brush stroke width of 1 inch.
- **320.6 LP-Gas.** The storage, use and handling of LP-Gas in a mobile food unit shall comply with this rule and, except as otherwise provided herein, shall also comply with rules

1301:7 7 30, 1301:7 7 34, 1301:7 7 35 and 1301:7 7 38 1301:7-7-53, 1301:7-7-57, 1301:7-7-58 and 1301:7-7-61 of the Administrative Code.

- (a) 320.6.1 Containers. Only ASME <u>certified</u> or <u>DOTn</u> <u>certified</u> mobile LP-Gas containers in compliance with the following shall be used:
  - (i) A maximum allowable working pressure (MAWP) of 312 psi (2.2 MPag) or higher for LP-Gas containers installed in the enclosed spaces of a vehicle.
  - (ii) A maximum allowable working pressure (MAWP) of 250 psi (2.2 MPag) or higher for LP-Gas containers installed on the exterior of a vehicle.
  - (iii) Propane tanks must be kept in a secure manner at all times.
  - (iv) The maximum aggregate capacity of containers used in a mobile food unit to contain LP-Gas shall not exceed 200 gallons (0.8 m3) aggregate water capacity.
- (b) 320.6.2 Location and installation. Supply systems for mobile food units shall comply with the following:
  - (i) LP-Gas supply systems used for a mobile food unit, including the containers, shall be installed either on the outside of the vehicle or in a recess or cabinet that is vapor tight to the inside of the vehicle but accessible from and vented to the outside, with the vents located near the top and bottom of the enclosure and 1 m (3 ft) horizontally away from any opening into the vehicle and below the level of the vents.
  - (ii) Except as otherwise provided in paragraph (T)(6)(b)(iii)(320.6.2) of this rule, LP-Gas containers shall be mounted securely on the vehicle or within the enclosing recess or cabinet and secured with noncombustible material or devices, shall be kept in a secure manner at all times, and shall comply with the following:
    - (a) Cylinders shall be located to minimize exposure to excessive temperature rises, physical damage, or tampering.

- (b) When secured to the rear of the vehicle Vehicle mounted propane tanks shall be mounted with a minimum 36" 30" clearance from the bottom of the tank to the ground when secured to the vehicle.
- (c) LP-Gas containers shall not be installed on the roof of the vehicle.
- (d) Where LP-Gas containers are mounted within the vehicle housing, the housing shall be secure to the vehicle and any removable portions of the housing shall be secured to the housing while in transit.
- (e) All LP-Gas container valves, appurtenances, and connections shall be protected to prevent damage from accidental contact with stationary objects, loose objects, stones, mud, or ice thrown, up from the ground or floor, and damage due to overturn or similar vehicular accident.
- (f) LP-Gas cylinders shall have permanent protection for cylinder valves and connections.
- (g) Where LP-Gas cylinders are located on the outside of a vehicle, weather protection shall be provided.
- (h) All materials or devices used to secure LP-Gas containers shall be made of noncombustible material.
- (iii) LP-Gas containers may be removed from the mobile food unit during operation activities. When so removed, propane tanks shall be secured to a stationary object or otherwise securely stabilized to prevent movement, overturn and damage at all times while operation activities are occurring.
- (c) 320.6.3 Piping and connectors. On or before, but no later than, December 31, 2018, all piping used All piping installed in a mobile food unit shall comply with the following:
  - (i) Piping shall be installed in accordance with section 6.9.3 of NFPA 58 as listed in rule 1301:7-7-80 of the Administrative Code.

- (ii) Steel tubing shall have a minimum wall thickness of 1.2 mm (0.049 in.).
- (iii) A flexible connector shall be installed between the regulator outlet and the fixed piping system to protect against expansion, contraction, jarring, and vibration strains.
- (iv) Flexibility shall be provided in the piping between a cylinder and the gas piping system or regulator.
- (v) Flexible connectors shall be installed in accordance with section 6.9.6 of NFPA 58 as listed in rule 1301:7-7-80 of the Administrative Code. Flexible connectors installed between apparatus and the piping system shall be installed in accordance with ANSI Z21-69-2015/CSA 6.6-2015 as listed in rule 1301:7-7-80 of the Administrative Code.
- (vi) Flexible connectors longer than the length allowed in the code, or fuel lines that incorporate hose, shall be used only where approved.
- (vii) 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.
- (viii) Piping shall be installed in a protected location.
  - (a) Where piping is installed outside the vehicle, piping shall be under the vehicle and below any insulation or false bottom.
  - (b)(a) Fastening or other protection shall be installed to prevent damage due to vibration or abrasion.
  - (e)(b) 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.
- (ix) Gas piping shall be installed to enter the vehicle through the floor directly beneath or adjacent to the appliance served.

- (x) If a branch line is installed, the tee connection shall be located in the main gas line under the floor and outside the vehicle.
- (xi) Exposed part of the fixed piping system shall be of corrosion resistant material or shall be coated or protected to minimize exterior corrosion.
- (xii)(ix) Hydrostatic relief valves shall be installed in isolated sections of liquid piping in accordance with section 6.13 of NFPA 58 as listed in rule 1301:7-7-80 of the Administrative Code.
- (xiii)(x) Piping systems, including hose, shall be pressure tested and proven free of leaks in accordance with section 6.14 of NFPA 58 as listed in rule 1301:7-7-80 of the Administrative Code.
- (d) 320.6.4 Emergency shut off controls. Mobile food units using LP-Gas shall be provided with readily distinguishable and accessible marked exterior emergency shut off controls with a quarter-turn manual gas ball valve.
  - (i) **320.6.4.1 Signage.** Signs shall be permanently mounted at the location of the emergency shut off controls and shall state: "EMERGENCY GAS SHUT-OFF VALVE"
    - (a) 320.6.4.1.1. Signs shall be clearly visible and shall remain unobscured at all times. Signs shall be weather resistant, of contrasting colors, and shall be readable from a minimum distance of 25 feet.
- 320.7 Distance and separation requirements. While parked and in operation mobile food units, exclusive of awnings and appurtenances, using or containing a fuel source or generator other than the vehicle fuel tank shall be separated from the entrances and other exits of buildings or structures, combustible materials, vehicles and other cooking operations by a clear space distance of 10 feet (3 m). While parked and in operation mobile food units using or containing a fuel source or generator other than the vehicle fuel tank shall be separated from other mobile food units by a clear space distance of 3 feet (0.9144 m).

Exception: When approved by the local authority having jurisdiction, mobile food service operations using LP Gas may be located at a distance of less than 10 feet from other mobile food units except that at no time shall a mobile food unit be closer than 7 feet from other mobile food units.

## 320.8 Generators.

- (a) **320.8.1.** Generators servicing a mobile food unit shall not be fueled while the mobile food unit is in operation.
- (b) 320.8.2. Generators shall not be fueled while the generator is in use and shall not be fueled until the generator has been turned off and the surface temperature of the engine and fuel tank is below the autoignition temperature of the fuel.
- (c) 320.8.3. No generator shall be operated or used or fueled within the occupant space of a mobile food unit.
- 320.9 <u>Electrical</u> Wiring <u>and Equipment</u>. <u>Electrical wiring</u> in a mobile food unit shall comply with this paragraph.
  - (a) 320.9.1. All electrical wiring and equipment shall be installed in accordance with NFPA 70 as listed in rule 1301:7-7-80 of the Administrative Code.
  - (b) 320.9.2. All electrical wiring shall be contained in exposed conduit in all mobile food units built, manufactured or altered on or after the effective date of this rule.

## 1301:7-7-03 General requirements.

#### (A) Section 301 General

- (1) **301.1 Scope.** The provisions of this *rule* shall govern the occupancy and maintenance of all structures and premises for precautions against fire and the spread of fire and general requirements of fire safety.
- (2) **301.2 Permits.** Permits shall be required as set forth in *of rule 1301:7-7-01 of the Administrative Code* for the activities or uses regulated by *paragraphs* (F)(306), (G)(307), (H)(308) and (O)(315) *of this rule*.

#### (B) Section 302 Definitions

(1) 302.1 Definitions. The following terms are defined in rule 1301:7-7-02 of the Administrative Code.

"Bonfire."

"Hi-boy."

"High-voltage transmission line."

"Mobile food unit."

"Open burning."

"Portable outdoor fireplace."

"Powered industrial truck."

"Recreational fire."

"Sky lantern."

#### (C) Section 303 Asphalt kettles

(1) **303.1 Transporting.** Asphalt (tar) kettles shall not be transported over any highway, road or street when the heat source for the kettle is operating.

**Exception:** Asphalt (tar) kettles in the process of patching road surfaces.

- (2) **303.2 Location.** Asphalt (tar) kettles shall not be located within 20 feet (6096 mm) of any combustible material, combustible building surface or any building opening. Asphalt (tar) kettles shall be located within a controlled area identified by the use of traffic cones, barriers or other approved means. Asphalt (tar) kettles and pots shall not be utilized inside or on the roof of a building or structure. Roofing kettles and operating asphalt (tar) kettles shall not block means of egress, gates, roadways or entrances.
- (3) 303.3 Location of fuel containers. Fuel containers shall be located not less than 10 feet (3048 mm) from the burner.

Exception: Containers properly insulated from heat or flame are allowed to be within 2 feet (610 mm) of the burner.

- (4) **303.4 Attendant.** An operating kettle shall be attended by not less than one employee knowledgeable of the operations and hazards. The employee shall be within 100 feet (30 480 mm) of the kettle and have the kettle within sight. Ladders or similar obstacles shall not form a part of the route between the attendant and the kettle.
- (5) **303.5 Fire extinguishers.** There shall be a portable fire extinguisher complying with *paragraph* (F)(906) *of rule 1301:7-7-09 of the Administrative Code* and with a minimum 40-B:C rating within 25 feet (7620 mm) of each asphalt (tar) kettle during the period such kettle is being utilized. Additionally, there shall be one portable fire extinguisher with a minimum 3-A:40-B:C rating on the roof being covered.
- (6) **303.6 Lids.** Asphalt (tar) kettles shall be equipped with tight-fitting lids.

(7) **303.7 Hi-boys.** Hi-boys shall be constructed of noncombustible materials. Hi-boys shall be limited to a capacity of 55 gallons (208 L). Fuel sources or heating elements shall not be allowed as part of a hi-boy.

- (8) 303.8 Roofing kettles. Roofing kettles shall be constructed of noncombustible materials.
- (9) **303.9 Fuel containers under air pressure.** Fuel containers that operate under air pressure shall not exceed 20 gallons (76 L) in capacity and shall be approved.
- (D) Section 304 Combustible waste material
- (1) **304.1 Waste accumulation prohibited.** Combustible waste material creating a fire hazard shall not be allowed to accumulate in buildings or structures or upon premises.
- (a) **304.1.1 Waste material.** Accumulations of wastepaper, wood, hay, straw, weeds, litter or combustible or flammable waste or rubbish of any type, *including but not limited to asphalt shingles*, shall not be permitted to remain on a roof or in any court, yard, vacant lot, alley, parking lot, open space, or beneath a grandstand, bleacher, pier, wharf, manufactured home, recreational vehicle or other similar structure.
- (b) **304.1.2 Vegetation.** Weeds, grass, vines or other growth that is capable of being ignited and endangering property, shall be cut down and removed by the owner or occupant of the premises. Vegetation clearance requirements in urban-wildland interface areas shall be in accordance with the International Wildland-Urban Interface Code as listed in rule 1301:7-7-80 of the Administrative Code.
- (c) **304.1.3 Space underneath seats.** Spaces underneath grandstand and bleacher seats shall be kept free from combustible and flammable materials. Except where enclosed in not less than 1-hour fire-resistance-rated construction in accordance with the *building code as listed in rule 1301:7-7-80 of the Administrative Code*, spaces underneath grandstand and bleacher seats shall not be occupied or utilized for purposes other than means of egress.
- (2) **304.2 Storage.** Storage of combustible rubbish shall not produce conditions that will create a nuisance or a hazard to the public health, safety or welfare.
- (3) **304.3 Containers.** Combustible rubbish, and waste material kept within or near a structure shall be stored in accordance with paragraphs (D)(3)(a)(304.3.1) to (D)(3)(d)(304.3.4) of this rule.
- (a) **304.3.1 Spontaneous ignition.** Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed disposal container. Contents of such containers shall be removed and disposed of daily.
- (b) **304.3.2 Capacity exceeding 5.33 cubic feet.** Containers with a capacity exceeding 5.33 cubic feet (40 gallons) (0.15 m³) shall be provided with lids. Containers and lids shall be constructed of noncombustible materials or of combustible materials with a peak rate of heat release not exceeding 300 kW/m² where tested in accordance with ASTM E 1354 as listed in rule 1301:7-7-80 of the Administrative Code at an incident heat flux of 50 kW/m² in the horizontal orientation.

**Exception:** Wastebaskets complying with paragraph (H)(808) of rule 1301:7-7-08 of the Administrative Code.

(c) **304.3.3 Capacity exceeding 1.5 cubic yards.** Dumpsters and containers with an individual capacity of **1.5 cubic yards** [(40.5 cubic feet) (1.15 m³)] or more shall not be stored in buildings or placed within 5 feet (1524 mm) of combustible walls, openings or combustible roof eave lines.

#### **Exceptions:**

- 1. Dumpsters or containers in areas protected by an approved automatic sprinkler system installed throughout in accordance with paragraph (C)(3)(a)(i)(903.3.1.1), (C)(3)(a)(ii)(903.3.1.2) or (C)(3)(a)(iii)(903.3.1.3) of rule 1301:7-7-09 of the Administrative Code.
- 2. Storage in a structure shall not be prohibited where the structure is of Type I or Type IIA construction, located not less than 10 feet (3048 mm) from other buildings and used exclusively for dumpster or container storage.
- (d) **304.3.4 Capacity of 1 cubic yard or more.** Dumpsters with an individual capacity of 1.0 cubic yard [200 gallons (0.76 m³)] or more shall not be stored in buildings or placed within 5 feet (1524 mm) of combustible walls, openings or combustible roof eave lines unless

the dumpsters are constructed of noncombustible materials or of combustible materials with a peak rate of heat release not exceeding  $300 \text{ kW/m}^2$  where tested in accordance with ASTM E 1354 as listed in rule 1301:7-7-80 of the Administrative Code at an incident heat flux of  $50 \text{ kW/m}^2$  in the horizontal orientation.

#### **Exceptions:**

- 1. Dumpsters in areas protected by an approved automatic sprinkler system installed throughout in accordance with *paragraph* (C)(3)(a)(i)(903.3.1.1), (C)(3)(a)(ii)(903.3.1.2) or (C)(3)(a)(iii)(903.3.1.3) of rule 1301:7-7-09 of the Administrative Code.
- 2. Storage in a structure shall not be prohibited where the structure is of Type I or IIA construction, located not less than 10 feet (3048 mm) from other buildings and used exclusively for dumpster or container storage.
- (E) Section 305 Ignition sources
- (1) **305.1 Clearance from ignition sources.** Clearance between ignition sources, such as luminaires, heaters, flame-producing devices and combustible materials, shall be maintained in an approved manner.
- (2) **305.2** Hot ashes and spontaneous ignition sources. Hot ashes, cinders, smoldering coals or greasy or oily materials subject to spontaneous ignition shall not be deposited in a combustible receptacle, within 10 feet (3048 mm) of other combustible material including combustible walls and partitions or within 2 feet (610 mm) of openings to buildings.

**Exception:** The minimum required separation distance to other combustible materials shall be 2 feet (610 mm) where the material is deposited in a covered, noncombustible receptacle placed on a noncombustible floor, ground surface or stand.

- (3) **305.3 Open-flame warning devices.** Open-flame warning devices shall not be used along an excavation, road, or any place where the dislodgment of such device might permit the device to roll, fall or slide on to any area or land containing combustible material.
- (4) **305.4 Deliberate or negligent burning.** It shall be unlawful to deliberately or through negligence set fire to or cause the burning of combustible material in such a manner as to endanger the safety of persons or property.
- (5) **305.5 Unwanted fire ignitions.** Acts or processes that have caused repeated ignition of unwanted fires shall be modified to prevent future ignition.
- (F) Section 306 Motion picture projection rooms and film
- (1) **306.1 Motion picture projection rooms.** Electric arc, xenon or other light source projection equipment that develops hazardous gases, dust or radiation and the projection of ribbon-type cellulose nitrate film, regardless of the light source used in projection, shall be operated within a motion picture projection room complying with Section 409 of the *building code as listed in rule 1301:7-7-80 of the Administrative Code*.
- (2) **306.2 Cellulose nitrate film storage.** Storage of cellulose nitrate film shall be in accordance with NFPA 40 *as listed in rule 1301:7-7-80 of the Administrative Code.*
- (G) Section 307 Open burning, recreational fires and portable outdoor fireplaces
- (1) **307.1 General.** A person shall not kindle or maintain or authorize to be kindled or maintained any open burning unless conducted and approved in accordance with *paragraphs* (G)(1)(a)(307.1.1) to (G)(5)(307.5) of this rule.
- (a) **307.1.1 Prohibited open burning.** Open burning shall be prohibited when atmospheric conditions or local circumstances make such fires hazardous.

**Exception:** Setting a back fire for the purpose of reducing the impact of wildland fire as set forth in section 1503.11 and 1503.22 of the Revised Code or from any prescribed burn operations authorized under 1503.18 (c) of the Revised Code.

(b) **307.1.2** Ban on open burning, recreational fires, and portable outdoor fireplaces. The state fire marshal, in the sole discretion of the state fire marshal, may issue a ban on open burning, recreational fires, or the use of portable outdoor fireplaces at any time when

the state fire marshal determines that atmospheric or drought or other environmental conditions necessitate such a ban. The ban may be issued state-wide or may be tailored to a specific area, region or county of the state as conditions warrant.

- (i) No open burning or recreational fires shall occur and no portable outdoor fireplaces shall be used in any area where a ban is in effect or at any time during a period when the state fire marshal has issued a ban.
- (ii) No permit authorizing open burning, recreational fires or the use of portable outdoor fireplaces shall be issued during anytime or in any area where a ban has been issued by the state fire marshal.

**Exception:** A permit authorizing open burning, recreational fires, or the use of portable outdoor fireplaces may be issued for any area, if any, that is not subject to the ban.

- (iii) Nothing in this paragraph shall prohibit a local fire code official with authority to do so from issuing a local ban on open burning, recreational fires, or the use of portable outdoor fireplaces at any time when conditions warrant, including during times when the state fire marshal has issued a ban as long as the local ban does not contradict the ban issued by the state fire marshal.
- (2) **307.2 Permit required.** A permit shall be obtained from the fire code official in accordance with *rule 1301:7-7-01 of the Administrative Code* prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, or a bonfire. Application for such approval shall only be presented by and permits issued to the owner of the land upon which the fire is to be kindled.
- (a) **307.2.1 Authorization.** Where required by state or local law or regulations, open burning shall only be permitted with prior approval from the state or local air and water quality management authority, provided that all conditions specified in the authorization are followed.
- (3) **307.3 Extinguishment authority.** Where open burning creates or adds to a hazardous situation, or a required permit for open burning has not been obtained, the fire code official is authorized to order the extinguishment of the open burning operation.
- (4) 307.4 Location. The location for open burning shall not be less than 50 feet (15 240 mm) from any structure, and provisions shall be made to prevent the fire from spreading to within 50 feet (15 240 mm) of any structure.

#### **Exceptions:**

- 1. Fires in approved containers that are not less than 15 feet (4572 mm) from a structure.
- 2. The minimum required distance from a structure shall be 25 feet (7620 mm) where the pile size is 3 feet (914 mm) or less in diameter and 2 feet (610 mm) or less in height.
- (a) **307.4.1 Bonfires.** A bonfire shall not be conducted within 50 feet (15 240 mm) of a structure or combustible material unless the fire is contained in a barbecue pit. Conditions that could cause a fire to spread within 50 feet (15 240 mm) of a structure shall be eliminated prior to ignition.
- (b) **307.4.2 Recreational fires.** Recreational fires shall not be conducted within 25 feet (7620 mm) of a structure or combustible material. Conditions that could cause a fire to spread within 25 feet (7620 mm) of a structure shall be eliminated prior to ignition.
- (i) **307.4.2.1 Fire pits.** Recreational fires conducted in gas-fired recreational pits shall not be conducted within 15 feet of a structure or combustible materials.
- (c) **307.4.3 Portable outdoor fireplaces.** Portable outdoor fireplaces shall be used in accordance with the manufacturer's instructions and shall not be operated within 15 feet (3048 mm) of a structure or combustible material.

**Exception:** Portable outdoor fireplaces used at one-and two-family dwellings.

(5) **307.5 Attendance.** Open burning, bonfires, recreational fires and use of portable outdoor fireplaces shall be constantly attended until the fire is extinguished. A minimum of one portable fire extinguisher complying with *paragraph* (F)(906) of rule 1301:7-7-09 of the Administrative Code with a minimum 4-A rating or other approved on-site fire-extinguishing equipment, such as dirt, sand, water barrel, garden hose or water truck, shall be available for immediate utilization.

#### (H) Section 308 Open flames

(1) **308.1 General.** Open flame, fire and burning on all premises shall be in accordance with paragraphs (H)(1)(a)(308.1.1) to (H)(4)(a)(308.4.1) of this rule and with other applicable paragraphs of this code.

5

- (a) **308.1.1 Where prohibited.** A person shall not take or utilize an open flame or light in a structure, vessel, boat or other place where highly flammable, combustible or explosive material is utilized or stored. Lighting appliances shall be well-secured in a glass globe and wire mesh cage or a similar approved device.
- (b) **308.1.2 Throwing or placing sources of ignition.** A person shall not throw or place, or cause to be thrown or placed, a lighted match, cigar, cigarette, matches, or other flaming or glowing substance or object on any surface or article where it can cause an unwanted fire.
- (c) **308.1.3 Torches for removing paint.** A person utilizing a torch or other flame-producing device for removing paint from a structure shall provide not less than one portable fire extinguisher complying with paragraph (F)(906) of rule 1301:7-7-09 of the Administrative Code and with a minimum 4-A rating, two portable fire extinguishers, each with a minimum 2-A rating, or a water hose connected to the water supply on the premises where such burning is done. The person doing the burning shall remain on the premises 1 hour after the torch or flame-producing device is utilized.
- (d) 308.1.4 Open-flame cooking devices. Charcoal burners and other open-flame cooking devices shall not be operated on combustible balconies or within 10 feet (3048 mm) of combustible construction.

- 1. One- and two-family dwellings.
- 2. Where buildings, balconies and decks are protected by an automatic sprinkler system.
- 3. Where approved by the fire code official, charcoal burners are allowed to be operated on combustible balconies or within 10 feet (3048 mm) of combustible construction where all of the following conditions are met:
- 3.1 The charcoal burners are attended by an adult at all times when in operation.
- 3.2 Portable fire extinguishers in the type, quantity and size as approved by the fire code official are present on the combustible balconies or at the cooking site located within 10 feet (3048 mm) of combustible construction. Such portable fire extinguishers shall be in an operable condition at all times and maintained in accordance with NFPA 10 as listed in rule 1301:7-7-80 of the Administrative Code.
- 3.3 All non-structural combustible material must be removed from the combustible balconies or at the cooking site located within 10 feet (3048 mm) of combustible construction.
- 4. LP-gas cooking devices having an LP-gas container with a water capacity not greater than 2½ pounds [nominal 1 pound (0.454 kg) LP-gas capacity].
- (i) **308.1.4.1 Natural gas fired open-flame cooking devices.** Where approved in writing by the fire code official, the installation and use of natural gas fired open flame cooking devices and/or appliances shall be permissible on combustible balconies of multi- (greater than two) family dwelling unit structures or within 10 feet (3048 mm) of combustible construction at multi-family dwelling unit structures, with the following conditions:
- (a) The fire code official, in that official's discretion, may require that any person responsible for the use of a natural gas fire open flame cooking device or other appliance at a multi-family dwelling unit structure, to maintain comprehensive general liability insurance in an amount sufficient to cover any damages to persons or property that could be attributed to any fire caused by the use of an open flame cooking device.
- (b) The fuel supply for the natural gas fueled open flame cooking device or appliance be from the natural gas fuel supply piping system connected to the building where the cooking is to occur. There shall be no storage tanks or cylinders located in or near the dwelling unit structure where the cooking is to occur.

(c) The gas pressure supplied to the natural gas fueled cooking appliance shall be no more than the pressure recommended by the cooking device/appliance manufacturer. In no case shall the maximum pressure supplied to the device or appliance exceed 2 pounds per square inch (psi).

- (d) Portable fire extinguishers in the type, quantity and size as approved by the fire code official are present on the combustible balconies or at the cooking site located within 10 feet (3048 mm) of combustible construction. Such portable fire extinguishers shall be in an operable condition at all times and maintained in accordance with NFPA 10 as listed in rule 1301:7-7-47 of the Administrative Code.
- (e) While the natural gas fired open flame cooking device or appliance is in use, all combustibles that are not part of the dwelling unit structure shall be kept 5 feet (1524 mm) away from the cooking device.
- (f) Any and all building code requirements for the installation and use of natural gas fired grills, open flame cooking devices or appliances shall be complied with, including compliance with any permit and inspection requirements.
- (e) **308.1.5 Location near combustibles.** Open flames such as from candles, lanterns, kerosene heaters and gas-fired heaters shall not be located on or near decorative material or similar combustible materials.
- (f) **308.1.6 Open-flame devices.** Torches and other devices, machines or processes liable to start or cause fire shall not be operated or used in or upon wildfire risk areas, except by a permit in accordance with *rule 1301:7-7-01 of the Administrative Code* secured from the fire code official.

**Exception:** Use within inhabited premises or designated campsites that are not less than 30 feet (9144 mm) from grass-, grain-, brush-or forest-covered areas.

(i) 308.1.6.1 Signals and markers. Flame-employing devices, such as lanterns or kerosene road flares, shall not be operated or used as a signal or marker in or upon wildfire risk areas.

**Exception:** The proper use of fusees at the scenes of emergencies or as required by standard railroad operating procedures.

(ii) 308.1.6.2 Portable fueled open-flame devices. Portable open-flame devices fueled by flammable or combustible gases or liquids shall be enclosed or installed in such a manner as to prevent the flame from contacting combustible material.

- 1. LP-gas-fueled devices used for sweating pipe joints or removing paint in accordance with *rule 1301:7-7-61 of the Administrative Code*.
- 2. Cutting and welding operations in accordance with rule 1301:7-7-35 of the Administrative Code.
- 3. Torches or flame-producing devices in accordance with paragraph (H)(4)(308.4) of this rule.
- 4. Candles and open-flame decorative devices in accordance with paragraph (H)(3)(308.3) of this rule.
- (iii) 308.1.6.3 Sky lanterns. A person shall not release or cause to be released an untethered sky lantern.
- (g) **308.1.7 Religious ceremonies.** When, in the opinion of the fire code official, adequate safeguards have been taken, participants in religious ceremonies are allowed to carry hand-held candles. Hand-held candles shall not be passed from one person to another while lighted.
- (i) 308.1.7.1 Aisles and exits. Candles shall be prohibited in areas where occupants stand, or in an aisle or exit.
- (h) **308.1.8 Flaming food and beverage preparation.** The preparation of flaming foods or beverages in places of assembly and drinking or dining establishments shall be in accordance with paragraphs (H)(1)(h)(i)(308.1.8.1) to (H)(1)(h)(v)(308.1.8.5) of this rule.
- (i) **308.1.8.1 Dispensing.** Flammable or combustible liquids used in the preparation of flaming foods or beverages shall be dispensed from one of the following:

**1301:7-7-03** 7

- (a) A 1-ounce (29.6 ml) container.
- (b) A container not exceeding 1-quart (946.5 ml) capacity with a controlled pouring device that will limit the flow to a 1-ounce (29.6 ml) serving.
- (ii) 308.1.8.2 Containers not in use. Containers shall be secured to prevent spillage when not in use.
- (iii) **308.1.8.3 Serving of flaming food.** The serving of flaming foods or beverages shall be done in a safe manner and shall not create high flames. The pouring, ladling or spooning of liquids is restricted to a maximum height of 8 inches (203 mm) above the receiving receptacle.
- (iv) **308.1.8.4 Location.** Flaming foods or beverages shall be prepared only in the immediate vicinity of the table being serviced. They shall not be transported or carried while burning.
- (v) **308.1.8.5 Fire protection.** The person preparing the flaming foods or beverages shall have a wet cloth towel immediately available for use in smothering the flames in the event of an emergency.
- (2) **308.2 Permits** required. Permits shall be obtained from the fire code official in accordance with *rule 1301:7-7-01 of the Administrative Code* prior to engaging in the following activities involving open flame, fire and burning:
- (a) Use of a torch or flame-producing device to remove paint from a structure.
- (b) Use of open flame, fire or burning in connection with Group A or E occupancies.
- (c) Use or operation of torches and other devices, machines or processes liable to start or cause fire in or upon wildfire risk areas.
- (3) 308.3 Group A occupancies. Open-flame devices shall not be used in a Group A occupancy.

- 1. Open-flame devices are allowed to be used in the following situations, provided approved precautions are taken to prevent ignition of a combustible material or injury to occupants:
- 1.1 Where necessary for ceremonial or religious purposes in accordance with paragraph (H)(1)(g)(308.1.7) of this rule.
- 1.2 On stages and platforms as a necessary part of a performance in accordance with paragraph (H)(3)(b)(308.3.2) of this rule.
- 1.3 Where candles on tables are securely supported on substantial noncombustible bases and the candle flames are protected.
- 2. Heat-producing equipment complying with rule 1301:7-7-06 of the Administrative Code and the mechanical code as listed in rule 1301:7-7-80 of the Administrative Code.
- 3. Gas lights are allowed to be used provided adequate precautions satisfactory to the fire code official are taken to prevent ignition of combustible materials.
- (a) 308.3.1 Open-flame decorative devices. Open-flame decorative devices shall comply with all of the following restrictions:
- (i) Class I and Class II liquids and LP-gas shall not be used.
- (ii) Liquid- or solid-fueled lighting devices containing more than 8 ounces (237 ml) of fuel must self-extinguish and not leak fuel at a rate of more than 0.25 teaspoon per minute (1.26 ml per minute) if tipped over.
- (iii) The device or holder shall be constructed to prevent the spillage of liquid fuel or wax at the rate of more than 0.25 teaspoon per minute (1.26 ml per minute) when the device or holder is not in an upright position.
- (iv) The device or holder shall be designed so that it will return to the upright position after being tilted to an angle of 45 degrees (0.79 rad) from vertical.

**Exception:** Devices that self-extinguish if tipped over and do not spill fuel or wax at the rate of more than 0.25 teaspoon per minute (1.26 ml per minute) if tipped over.

- (v) The flame shall be enclosed except where openings on the side are not more than 0.375 inch (9.5 mm) diameter or where openings are on the top and the distance to the top is such that a piece of tissue paper placed on the top will not ignite in 10 seconds.
- (vi) Chimneys shall be made of noncombustible materials and securely attached to the open-flame device.

**Exception:** A chimney is not required to be attached to any open-flame device that will self-extinguish if the device is tipped over.

- (vii) Fuel canisters shall be safely sealed for storage.
- (viii) Storage and handling of combustible liquids shall be in accordance with rule 1301:7-7-57 of the Administrative Code.
- (ix) Shades, where used, shall be made of noncombustible materials and securely attached to the open-flame device holder or chimney.
- (x) Candelabras with flame-lighted candles shall be securely fastened in place to prevent overturning, and shall be located away from occupants using the area and away from possible contact with drapes, curtains or other combustibles.
- (b) **308.3.2 Theatrical performances.** Where approved *in accordance with the permit requirements of rule 1301:7-7-33 of the Administrative Code,* open-flame devices used in conjunction with theatrical performances are allowed to be used when adequate safety precautions have been taken in accordance with NFPA 160 *as listed in rule 1301:7-7-80 of the Administrative Code*.
- (4) 308.4 Group R occupancies. Open flame, fire and burning in Group R occupancies shall comply with the requirements of paragraphs (H)(1)(308.1) to (H)(1)(f)(iii)(308.1.6.3) and (H)(4)(a)(308.4.1) of this rule.
- (a) 308.4.1 Group R-2 dormitories. Candles, incense and similar open-flame-producing items shall not be allowed in sleeping units in Group R-2 dormitory occupancies.
- (I) Section 309 Powered industrial trucks and equipment
- (1) **309.1 General.** Powered industrial trucks and similar equipment including, but not limited to, floor scrubbers and floor buffers, shall be operated and maintained in accordance with this paragraph (I)(2)(309.2) to (I)(6)(309.6) of this rule.
- (2) **309.2** Battery chargers. Battery chargers shall be of an approved type. Combustible storage shall be kept not less than 3 feet (915 mm) from battery chargers. Battery charging shall not be conducted in areas accessible to the public.
- (3) **309.3 Ventilation.** Ventilation shall be provided in an approved manner in battery-charging areas to prevent a dangerous accumulation of flammable gases.
- (4) **309.4 Fire extinguishers.** Battery-charging areas shall be provided with a fire extinguisher complying with paragraph (F)(906) of rule 1301:7-7-09 of the Administrative Code having a minimum 4-A:20-B:C rating within 20 feet (6096 mm) of the battery charger.
- (5) **309.5 Refueling.** Powered industrial trucks using liquid fuel, LP-gas or hydrogen shall be refueled outside of buildings or in areas specifically approved for that purpose. Fixed fuel-dispensing equipment and associated fueling operations shall be in accordance with rule 1301:7-7-23 of the Administrative Code. Other fuel-dispensing equipment and operations, including cylinder exchange for LP-gasfueled vehicles, shall be in accordance with rule 1301:7-7-57 of the Administrative Code for flammable and combustible liquids or rule 1301:7-7-61 of the Administrative Code for LP-gas.
- (6) **309.6 Repairs.** Repairs to fuel systems, electrical systems and repairs utilizing open flame or welding shall be done in approved locations outside of buildings or in areas specifically approved for that purpose.
- (J) Section 310 Smoking
- (1) **310.1 General.** The smoking or carrying of a lighted pipe, cigar, cigarette or any other type of smoking paraphernalia or material is prohibited in the areas indicated in *paragraphs* (J)(2)(310.2) to (J)(8)(310.8) of this rule.

(2) **310.2 Prohibited areas.** Smoking shall be prohibited where conditions are such as to make smoking a hazard, and in spaces where flammable or combustible materials are stored or handled.

(3) **310.3 "No Smoking" signs.** The fire code official is authorized to order the posting of "No Smoking" signs in a conspicuous location in each structure or location in which smoking is prohibited. The content, lettering, size, color and location of required "No Smoking" signs shall be approved.

**Exception:** In Group I-2 occupancies where smoking is prohibited, "No Smoking" signs are not required in interior locations of the facility where signs are displayed at all major entrances into the facility.

- (4) 310.4 Removal of signs prohibited. A posted "No Smoking" sign shall not be obscured, removed, defaced, mutilated or destroyed.
- (5) **310.5 Compliance with "No Smoking" signs.** Smoking shall not be permitted nor shall a person smoke, throw or deposit any lighted or smoldering substance in any place where "No Smoking" signs are posted.
- (6) **310.6 Ash trays.** Where smoking is permitted, suitable noncombustible ash trays or match receivers shall be provided on each table and at other appropriate locations.
- (7) **310.7 Burning objects.** Lighted matches, cigarettes, cigars or other burning objects shall not be discarded in such a manner that could cause ignition of other combustible material.
- (8) **310.8 Hazardous environmental conditions.** Where the fire code official determines that hazardous environmental conditions necessitate controlled use of smoking materials, the ignition or use of such materials in mountainous, brush-covered or forest-covered areas or other designated areas is prohibited except in approved designated smoking areas.

#### (K) Section 311 Vacant premises

- (1) **311.1 General.** Temporarily unoccupied buildings, structures, premises or portions thereof, including tenant spaces, shall be safeguarded and maintained in accordance with *paragraphs* (K)(1)(a)(311.1.1) to (K)(6)(311.6) of this rule.
- (a) **311.1.1 Abandoned premises.** Buildings, structures and premises for which an owner cannot be identified or located by dispatch of a certificate of mailing to the last known or registered address, which persistently or repeatedly become unprotected or unsecured, which have been occupied by unauthorized persons or for illegal purposes, or which present a danger of structural collapse or fire spread to adjacent properties shall be considered abandoned, declared unsafe and abated by demolition or rehabilitation in accordance with the International Property Maintenance Code and the *building code as listed in rule 1301:7-7-80 of the Administrative Code*.
- (b) 311.1.2 Tenant spaces. Storage and lease plans required by this code shall be revised and updated to reflect temporary or partial vacancies.
- (2) **311.2 Safeguarding vacant premises.** Temporarily unoccupied buildings, structures, premises or portions thereof shall be secured and protected in accordance with *paragraphs* (K)(2)(a)(311.2.1) to (K)(2)(c)(311.2.3) of this rule.
- (a) **311.2.1 Security.** Exterior and interior openings accessible to other tenants or unauthorized persons shall be boarded, locked, blocked or otherwise protected to prevent entry by unauthorized individuals. The fire code official is authorized to placard, post signs, erect barrier tape or take similar measures as necessary to secure public safety.
- (i) **311.2.1.1.** Residential property subject to section 2308.02 of the Revised Code regarding an expedited foreclosure on vacant and abandoned property, shall be secured in accordance with section 2308.031 of the Revised Code. If a quick release device is manufactured for the product used to secure the property, the quick release device shall be installed.
- (b) 311.2.2 Fire protection. Fire alarm, sprinkler and standpipe systems shall be maintained in an operable condition at all times.

#### **Exceptions:**

1. When the premises have been cleared of all combustible materials and debris and, in the opinion of the fire code official, the type of construction, fire separation distance and security of the premises do not create a fire hazard.

2. Where approved by the fire chief, buildings that will not be heated and where fire protection systems will be exposed to freezing temperatures, fire alarm and sprinkler systems are permitted to be placed out of service and standpipes are permitted to be maintained as dry systems (without an automatic water supply), provided the building has no contents or storage, and windows, doors and other openings are secured to prohibit entry by unauthorized persons.

- (c) **311.2.3 Fire separation.** Fire-resistance-rated partitions, fire barriers and fire walls separating vacant tenant spaces from the remainder of the building shall be maintained. Openings, joints, and penetrations in fire-resistance-rated assemblies shall be protected in accordance with *rule 1301:7-7-07 of the Administrative Code*.
- (3) **311.3 Removal of combustibles.** Persons owning, or in charge or control of, a vacant building or portion thereof, shall remove therefrom all accumulations of combustible materials, flammable or combustible waste or rubbish and shall securely lock or otherwise secure doors, windows and other openings to prevent entry by unauthorized persons. The premises shall be maintained clear of waste or hazardous materials.

- 1. Buildings or portions of buildings undergoing additions, alterations, repairs or change of occupancy in accordance with the building code as listed in rule 1301:7-7-80 of the Administrative Code, where waste is controlled and removed as required by paragraph (D)(304) of this rule.
- 2. Seasonally occupied buildings.
- (4) **311.4 Removal of hazardous materials.** Persons owning or having charge or control of a vacant building containing hazardous materials regulated by *rule 1301:7-7-50 of the Administrative Code* shall comply with the facility closure requirements of *paragraph* (A)(6)(5001.6) of rule 1301:7-7-50 of the Administrative Code.
- (5) **311.5 Placards.** Any vacant or abandoned buildings or structures determined to be unsafe pursuant to paragraph (J)(110) of rule 1301:7-7-01 of the Administrative Code relating to structural or interior hazards shall be marked as required by paragraphs (K)(5)(a)(311.5.1) to (K)(5)(e)(311.5.5) of this rule.
- (a) **311.5.1 Placard location.** Placards shall be applied on the front of the structure and be visible from the street. Additional placards shall be applied to the side of each entrance to the structure and on penthouses.
- (b) 311.5.2 Placard size and color. Placards shall be 24 inches by 24 inches (610 mm by 610 mm) minimum in size with a red background, white reflective stripes and a white reflective border. The stripes and border shall have a 2-inch (51 mm) minimum stroke.
- (c) 311.5.3 Placard date. Placards shall bear the date of their application to the building and the date of the most recent inspection.
- (d) 311.5.4 Placard symbols. The design of the placards shall use the following symbols:
- (i) This symbol shall mean that the structure had normal structural conditions at the time of marking.
- (ii) This symbol shall mean that structural or interior hazards exist and interior fire-fighting or rescue operations should be conducted with extreme caution.
- (iii This symbol shall mean that structural or interior hazards exist to a degree that consideration should be given to limit fire fighting to exterior operations only, with entry only occurring for known life hazards.
- (iv) Vacant marker hazard identification symbols: The following symbols shall be used to designate known hazards on the vacant building marker. They shall be placed directly above the symbol.
- (a) R/O-Roof open
- (b) S/M-Stairs, steps and landing missing
- (c) F/E-Avoid fire escapes
- (d) H/F-Holes in floor

(e) **311.5.5 Informational use.** The use of these symbols shall be informational only and shall not in any way limit the discretion of the on-scene incident commander.

- (f) 311.6 Unoccupied tenant spaces in mall buildings. Unoccupied tenant spaces in covered and open mall buildings shall be:
- (i) Kept free from the storage of any materials.
- (ii) Separated from the remainder of the building by partitions of not less than 0.5-inch-thick (12.7 mm) gypsum board or an approved equivalent to the underside of the ceiling of the adjoining tenant spaces.
- (iii) Without doors or other access openings other than one door that shall be kept key locked in the closed position except during that time when opened for inspection.
- (iv) Kept free from combustible waste and be broom swept clean.
- (L) Section 312 Vehicle impact protection
- (1) **312.1 General.** Vehicle impact protection required by this code shall be provided by posts that comply with *paragraph* (L)(2)(312.2) of this rule or by other approved physical barriers that comply with *paragraph* (L)(3)(312.3) of this rule.
- (2) **312.2 Posts.** Guard posts shall comply with all of the following requirements:
- (a) Constructed of steel not less than 4 inches (102 mm) in diameter and concrete filled.
- (b) Spaced not more than 4 feet (1219 mm) between posts on center.
- (c) Set not less than 3 feet (914 mm) deep in a concrete footing of not less than a 15-inch (381 mm) diameter.
- (d) Set with the top of the posts not less than 3 feet (914 mm) above ground.
- (e) Located not less than 3 feet (914 mm) from the protected object.
- (3) **312.3 Other barriers.** Barriers, other than posts specified in *paragraph* (L)(3)(312.3) *of this rule*, that are designed to resist, deflect or visually deter vehicular impact commensurate with an anticipated impact scenario shall be permitted where approved.
- (M) Section 313 Fueled equipment
- (1) **313.1** General. Fueled equipment including, but not limited to motorcycles, mopeds, lawn-care equipment, portable generators and portable cooking equipment, shall not be stored, operated or repaired within a building.

- 1. Buildings or rooms constructed for such use in accordance with the building code as listed in rule 1301:7-7-80 of the Administrative Code.
- 2. Where allowed by paragraph (N)(314) of this rule.
- 3. Storage of equipment utilized for maintenance purposes is allowed in approved locations where the aggregate fuel capacity of the stored equipment does not exceed 10 gallons (38 L) and the building is equipped throughout with an automatic sprinkler system installed in accordance with paragraph (C)(3)(a)(i)(903.3.1.1) of rule 1301:7-7-09 of the Administrative Code.
- (a) **313.1.1 Removal.** The fire code official is authorized to require removal of fueled equipment from locations where the presence of such equipment is determined by the fire code official to be hazardous.
- (2) **313.2 Group R occupancies.** Vehicles powered by flammable liquids, Class II combustible liquids or compressed flammable gases shall not be stored within the living space of Group R buildings.

- (N) Section 314 Indoor displays
- (1) **314.1 General.** Indoor displays constructed within any occupancy shall comply with *paragraphs* (N)(2)(314.2) *to* (N)(4)(314.4) *of this rule*.
- (2) **314.2 Fixtures and displays.** Fixtures and displays of goods for sale to the public shall be arranged so as to maintain free, immediate and unobstructed access to exits as required by *rule 1301:7-7-10 of the Administrative Code*.
- (3) **314.3 Highly combustible goods.** The display of highly combustible goods, including but not limited to flammable or combustible liquids, liquefied flammable gases, oxidizing materials, pyroxylin plastics and agricultural goods, in main exit access aisles, corridors, covered and open malls, or within 5 feet (1524 mm) of entrances to exits and exterior exit doors is prohibited when a fire involving such goods would rapidly prevent or obstruct egress.
- (a) **314.3.1 Display of fireworks for retail sale.** The display of fireworks for retail sale shall be in accordance with rule 1301:7-7-56 of the Administrative Code.
- (4) 314.4 Vehicles. Liquid- or gas-fueled vehicles, boats or other motorcraft shall not be located indoors except as follows:
- (a) Batteries are disconnected.
- (b) Fuel in fuel tanks does not exceed one-quarter tank or 5 gallons (19 L) (whichever is least).
- (c) Fuel tanks and fill openings are closed and sealed to prevent tampering.
- (d) Vehicles, boats or other motorcraft equipment are not fueled or defueled within the building.
- (O) Section 315 General storage
- (1) 315.1 General. Storage shall be in accordance with paragraphs (0)(2)(315.2) to (0)(5)(315.5) of this rule.
- (2) **315.2 Permit required.** A permit for miscellaneous combustible storage shall be required as set forth in *rule* **13**01:7-7-01 of the Administrative Code.
- (3) **315.3 Storage in buildings.** Storage of materials in buildings shall be orderly and stacks shall be stable. Storage of combustible materials shall be separated from heaters or heating devices by distance or shielding so that ignition cannot occur.
- (a) **315.3.1 Ceiling clearance.** Storage shall be maintained 2 feet (610 mm) or more below the ceiling in nonsprinklered areas of buildings or not less than 18 inches (457 mm) below sprinkler head deflectors in sprinklered areas of buildings.
- (b) 315.3.2 Means of egress. Combustible materials shall not be stored in exits or enclosures for stairways and ramps.
- (c) **315.3.3 Equipment rooms.** Combustible material shall not be stored in boiler rooms, mechanical rooms, electrical equipment rooms or in fire command centers as specified in *paragraph* (G)(1)(e)(508.1.5) *of rule 1301:7-7-05 of the Administrative Code*.
- (d) **315.3.4 Attic, under-floor and concealed spaces.** Attic, under-floor and concealed spaces used for storage of combustible materials shall be protected on the storage side as required for 1-hour fire-resistance-rated construction. Openings shall be protected by assemblies that are self-closing and are of noncombustible construction or solid wood core not less than 1¾ inches (44.5 mm) in thickness. Storage shall not be placed on exposed joists.

#### **Exceptions:**

- 1. Areas protected by approved automatic sprinkler systems.
- 2. Group R-3 and Group U occupancies.
- (4) 315.4 Outside storage. Outside storage of combustible materials shall not be located within 10 feet (3048 mm) of a property line.

#### **Exceptions:**

- 1. The separation distance is allowed to be reduced to 3 feet (914 mm) for storage not exceeding 6 feet (1829 mm) in height.
- 2. The separation distance is allowed to be reduced where the fire code official determines that no hazard to the adjoining property exists.
- (a) **315.4.1 Storage beneath overhead projections from buildings.** Where buildings are protected by automatic sprinklers, the outdoor storage, display and handling of combustible materials under eaves, canopies or other projections or overhangs are prohibited except where automatic sprinklers are installed under such eaves, canopies or other projections or overhangs.
- (b) 315.4.2 Height. Storage in the open shall not exceed 20 feet (6096 mm) in height.
- (5) **315.5 Storage underneath high-voltage transmission lines.** Storage located underneath high-voltage transmission lines shall be in accordance with *paragraph* (P)(6)(b)(316.6.2) *of this rule*.
- (6) **315.6 Storage in plenums.** Storage shall not be permitted in plenums. Abandoned material in plenums shall be deemed to be storage and shall be removed. Where located in plenums, the accessible portion of abandoned cables that are not identified for future use with a tag shall be deemed storage and shall be removed.
- (P) Section 316 Hazards to fire fighters
- (1) **316.1 Trapdoors to be closed.** Trapdoors and scuttle covers, other than those that are within a dwelling unit or automatically operated, shall be kept closed at all times except when in use.
- (2) 316.2 Shaftway markings. Vertical shafts shall be identified as required by this paragraph.
- (a) 316.2.1 Exterior access to shaftways. Outside openings accessible to the fire department and that open directly on a hoistway or shaftway communicating between two or more floors in a building shall be plainly marked with the word "SHAFTWAY" in red letters not less than 6 inches (152 mm) high on a white background. Such warning signs shall be placed so as to be readily discernible from the outside of the building.
- (b) 316.2.2 Interior access to shaftways. Door or window openings to a hoistway or shaftway from the interior of the building shall be plainly marked with the word "SHAFTWAY" in red letters not less than 6 inches (152 mm) high on a white background. Such warning signs shall be placed so as to be readily discernible.

**Exception:** Marking shall not be required on shaftway openings that are readily discernible as openings onto a shaftway by the construction or arrangement.

- (3) **316.3 Pitfalls.** The intentional design or alteration of buildings to disable, injure, maim or kill intruders is prohibited. A person shall not install and use firearms, sharp or pointed objects, razor wire, explosives, flammable or combustible liquid containers, or dispensers containing highly toxic, toxic, irritant or other hazardous materials in a manner that could passively or actively disable, injure, maim or kill a fire fighter who forcibly enters a building for the purpose of controlling or extinguishing a fire, rescuing trapped occupants or rendering other emergency assistance.
- (4) **316.4 Obstructions on roofs.** Wires, cables, ropes, antennas, or other suspended obstructions installed on the roof of a building having a roof slope of less than 30 degrees (0.52 rad) shall not create an obstruction that is less than 7 feet (2133 mm) high above the surface of the roof.

#### **Exceptions:**

- 1. Such obstruction shall be permitted where the wire, cable, rope, antenna or suspended obstruction is encased in a white, 2-inch (51 mm) minimum diameter plastic pipe or an approved equivalent.
- 2. Such obstruction shall be permitted where there is a solid obstruction below such that accidentally walking into the wire, cable, rope, antenna or suspended obstruction is not possible.
- (5) **316.5 Security device.** Any security device or system that emits any medium that could obscure a means of egress in any building, structure or premise shall be prohibited.

(6) **316.6 Structures and outdoor storage underneath high-voltage transmission lines.** Structures and outdoor storage underneath high-voltage transmission lines shall comply with *paragraphs* (P)(6)(a)(316.6.1) and (P)(6)(b)(316.6.2) *of this rule*, respectively.

(a) 316.6.1 Structures. Structures shall not be constructed within the utility easement underneath high-voltage transmission lines.

**Exception:** Restrooms and unoccupied telecommunication structures of noncombustible construction less than 15 feet (4572 mm) in height.

(b) **316.6.2 Outdoor storage.** Outdoor storage within the utility easement underneath high-voltage transmission lines shall be limited to noncombustible material. Storage of hazardous materials including, but not limited to, flammable and combustible liquids is prohibited.

**Exception:** Combustible storage, including vehicles and fuel storage for backup power equipment serving public utility equipment, is allowed, provided that a plan indicating the storage configuration is submitted and approved.

## (Q) Section 317 Rooftop gardens and landscaped roofs

- (1) **317.1 General.** Rooftop gardens and landscaped roofs shall be installed and maintained in accordance with paragraphs (Q)(2)(317.2) to (Q)(5)(317.5) of this rule and sections 1505 and 1507.16 of the building code as listed in rule 1301:7-7-80 of the Administrative Code.
- (2) **317.2 Rooftop garden** or landscaped roof size. Rooftop garden or landscaped roof areas shall not exceed 15 625 square feet (1450 m²) in size for any single area with a maximum dimension of 125 feet (39 m) in length or width. A minimum 6-foot-wide (1.8 m) clearance consisting of a Class A-rated roof system complying with ASTM E 108 or UL 790 as listed in rule 1301:7-7-80 of the Administrative Code shall be provided between adjacent rooftop gardens or landscaped roof areas.
- (3) **317.3 Rooftop structure and equipment clearance.** For all vegetated roofing systems abutting combustible vertical surfaces, a Class A-rated roof system complying with ASTM E 108 or UL 790 *as listed in rule 1301:7-7-80 of the Administrative Code* shall be achieved for a minimum 6-foot-wide (1829 mm) continuous border placed around rooftop structures and all rooftop equipment including, but not limited to, mechanical and machine rooms, penthouses, skylights, roof vents, solar panels, antenna supports and building service equipment.
- (4) **317.4 Vegetation.** Vegetation shall be maintained in accordance with *paragraphs* (Q)(4)(a)(317.4.1) and (Q)(4)(b)(317.4.2) of this rule.
- (a) **317.4.1 Irrigation.** Supplemental irrigation shall be provided to maintain levels of hydration necessary to keep green roof plants alive and to keep dry foliage to a minimum.
- (b) **317.4.2** Dead foliage. Excess biomass, such as overgrown vegetation, leaves and other dead and decaying material, shall be removed at regular intervals not less than two times per year.
- (c) **317.4.3 Maintenance plan.** The fire code official is authorized to require a maintenance plan for vegetation placed on roofs due to the size of a roof garden, materials used or where a fire hazard exists to the building or exposures due to the lack of maintenance.
- (5) **317.5 Maintenance equipment.** Fueled equipment stored on roofs and used for the care and maintenance of vegetation on roofs shall be stored in accordance with *paragraph* (M)(313) *of this rule*.

#### (R) Section 318 Laundry carts

(1) **318.1 Laundry carts with a capacity of 1 cubic yard or more.** Laundry carts with an individual capacity of 1 cubic yard [200 gallons (0.76 m³)] or more, used in laundries within Group B, E, F-1, I, M and R-1 occupancies shall be constructed of noncombustible materials or materials having a peak rate of heat release not exceeding 300 kW/m² at a flux of 50 kW/m² when tested in a horizontal orientation in accordance with ASTM E 1354 *as listed in rule 1301:7-7-80 of the Administrative Code*.

1. Laundry carts in areas protected by an approved automatic sprinkler system installed throughout in accordance with *paragraph* (C)(3)(a)(i)(903.3.1.1) *of rule 1301:7-7-09 of the Administrative Code*.

- 2. Laundry carts in coin-operated laundries.
- (S) Section 319 Laboratories using chemicals
- (1) **319.1** The operation and maintenance of all laboratories shall be in accordance with the requirements of NFPA 45 as listed in rule 1301:7-7-80 of the Administrative Code.
- (T) Section 320 Mobile food units
- (1) **320.1 Scope.** This paragraph applies to all mobile food units operated within this state.
- (2) **320.2 General.** In addition to other applicable provisions of this code, all mobile food units being operated in this state shall comply with the provisions of this paragraph and with all applicable provisions of this code for the type of cooking performed.
- (a) **320.2.1 Obstructions of fire lanes and equipment.** Mobile food unit shall not block fire lanes, fire hydrants, or other fire protection devices and equipment.
- (b) **320.2.2 Operation of fuel source during transit.** LP-gas fueled equipment shall not be operated during transit unless the equipment meets both of the following:
- (i) The <mark>eq</mark>uipment is d<mark>esi</mark>gned to be in operation while the vehicle is in transit, such as cargo heaters or coolers; and
- (ii) There is a means installed to stop the flow of gas in the event of a line break, such as an excess flow valve.
- (c) 320.2.3 Carbon monoxide detection. All mobile food units shall be equipped with at least one listed carbon monoxide detection device.

**Exception:** Carbon monoxide detectors shall not be required in open air hand propelled carts.

(3) **320.3 Portable fire extinguishers.** All mobile food units shall have a minimum of one 5-pound ABC portable fire extinguisher located within the unit and readily accessible by the operator of the unit.

**Exception:** Open air hand carts that do not have fossil fuel powered equipment.

- (a) **320.3.1 Class K portable fire extinguishers.** In addition to the portable fire extinguisher required in paragraph (T)(3)(320.3) of this rule, all mobile food units that contain cooking equipment involving solid fuels or vegetable or animal oils and fats shall also be protected by at least one Class K rated portable fire extinguisher in accordance with paragraphs (D)(11)(e)(904.11.5) to (D)(11)(e)(ii)(904.11.5.2) of rule 1301:7-7-09 of the Administrative Code.
- (b) **320.3.2 Installation and maintenance.** All portable fire extinguishers located within or at a mobile food unit shall be installed, serviced, tested, inspected and maintained in accordance with paragraph (F)(906) of rule 1301:7-7-09 of the Administrative Code.
- (4) **320.4 Egress.** All mobile food units that operate commercial cooking equipment shall have two accessible means of egress remotely located from each other.
- (a) **320.4.1.** No means of egress required by this paragraph shall be smaller than 5.7 square feet.
- (5) **320.5 Smoking.** Smoking shall be prohibited inside of and within 10 feet of any mobile food unit that has any fuel source other than the vehicle fuel tank.
- (a) **320.5.1.** "No Smoking" signs shall be conspicuously posted inside each mobile food unit, outside each mobile food unit in the vicinity of any location where compressed gas is stored or kept, and in a location that is visible to the public.
- (b) **320.5.2.** "No Smoking" signs shall be in English, shall have a dark background, and shall have lettering in a contrasting color that is at least 4 inches tall and with a minimum brush stroke width of 1 inch.

(6) **320.6 LP-Gas.** The storage, use and handling of LP-Gas in a mobile food unit shall comply with this rule and, except as otherwise provided herein, shall also comply with rules 1301:7-7-30, 1301:7-7-34, 1301:7-7-35 and 1301:7-7-38 of the Administrative Code.

- (a) 320.6.1 Containers. Only ASME mobile LP-Gas containers in compliance with the following shall be used:
- (i) A maximum allowable working pressure (MAWP) of 312 psi (2.2 MPag) or higher for LP-Gas containers installed in the enclosed spaces of a vehicle.
- (ii) A maximum allowable working pressure (MAWP) of 250 psi (2.2 MPag) or higher for LP-Gas containers installed on the exterior of a vehicle.
- (iii) Propane tanks must be kept in a secure manner at all times.
- (iv) The maximum aggregate capacity of containers used in a mobile food unit to contain LP-Gas shall not exceed 200 gallons (0.8 m³) aggregate water capacity.
- (b) **320.6.2 Location and installation.** Supply systems for mobile food units shall comply with the following:
- (i) LP-Gas supply systems used for a mobile food unit, including the containers, shall be installed either on the outside of the vehicle or in a recess or cabinet that is vapor tight to the inside of the vehicle but accessible from and vented to the outside, with the vents located near the top and bottom of the enclosure and 1 m (3 ft) horizontally away from any opening into the vehicle and below the level of the vents.
- (ii) LP-Gas containers shall be mounted securely on the vehicle or within the enclosing recess or cabinet and secured with non-combustible material or devices, shall be kept in a secure manner at all times, and shall comply with the following:
- (a) Cylinders shall be located to minimize exposure to excessive temperature rises, physical damage, or tampering.
- (b) Vehicle mounted propane tanks shall be mounted with minimum 36" clearance from the bottom of the tank to the ground when secured to the vehicle.
- (c) LP-Gas containers shall not be installed on the roof of the vehicle.
- (d) Where LP-Gas containers are mounted within the vehicle housing, the housing shall be secure to the vehicle and any removable portions of the housing shall be secured to the housing while in transit.
- (e) All LP-Gas container valves, appurtenances, and connections shall be protected to prevent damage from accidental contact with stationary objects, loose objects, stones, mud, or ice thrown, up from the ground or floor, and damage due to overturn or similar vehicular accident.
- (f) LP-Gas cylinders shall have permanent protection for cylinder valves and connections.
- (g) Where LP-Gas cylinders are located on the outside of a vehicle, weather protection shall be provided.
- (h) All materials or devices used to secure LP-Gas containers shall be made of non-combustible material.
- (c) **320.6.3 Piping and connectors.** On or before, but no later than, December 31, 2018, all piping used in a mobile food unit shall comply with the following:
- (i) Piping shall be installed in accordance with section 6.9.3 of NFPA 58 as listed in rule 1301:7-7-80 of the Administrative Code.
- (ii) Steel tubing shall have a minimum wall thickness of 1.2 mm (0.049 in.).
- (iii) A flexible connector shall be installed between the regulator outlet and the fixed piping system to protect against expansion, contraction, jarring, and vibration strains.
- (iv) Flexibility shall be provided in the piping between a cylinder and the gas piping system or regulator.

(v) Flexible connectors shall be installed in accordance with section 6.9.6 of NFPA 58 as listed in rule 1301:7-7-80 of the Administrative Code. Flexible connectors installed between apparatus and the piping system shall be installed in accordance with ANSI Z21-69-2015/CSA 6.6-2015 as listed in rule 1301:7-7-80 of the Administrative Code.

- (vi) Flexible connectors longer than the length allowed in the code, or fuel lines that incorporate hose, shall be used only where approved.
- (vii) 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.
- (viii) Piping shall be installed in a protected location.
- (a) Where piping is installed outside the vehicle, piping shall be under the vehicle and below any insulation or false bottom.
- (b) Fastening or other protection shall be installed to prevent damage due to vibration or abrasion.
- (c) 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.
- (ix) Gas piping shall be installed to enter the vehicle through the floor directly beneath or adjacent to the appliance served.
- (x) If a branch line is installed, the tee connection shall be located in the main gas line under the floor and outside the vehicle.
- (xi) Ex<mark>po</mark>sed part of the fixed piping system shall be of corrosion-resistant material or shall be coated or protected to minimize exterior corrosion.
- (xii) Hydrostatic relief valves shall be installed in isolated sections of liquid piping in accordance with section 6.13 of NFPA 58 as listed in rule 1301:7-7-80 of the Administrative Code.
- (xiii) Piping systems, including hose, shall be pressure tested and proven free of leaks in accordance with section 6.14 of NFPA 58 as listed in rule 1301:7-7-80 of the Administrative Code.
- (d) **320.6.4 Emergency shut off controls.** Mobile food units using LP-Gas shall be provided with readily distinguishable and accessible marked exterior emergency shut off controls with a quarter-turn manual gas ball valve.
- (i) **320.6.4.1 Signage.** Signs shall be permanently mounted at the location of the emergency shut off controls and shall state:

## "EMERGENCY GAS SHUT-OFF VALVE"

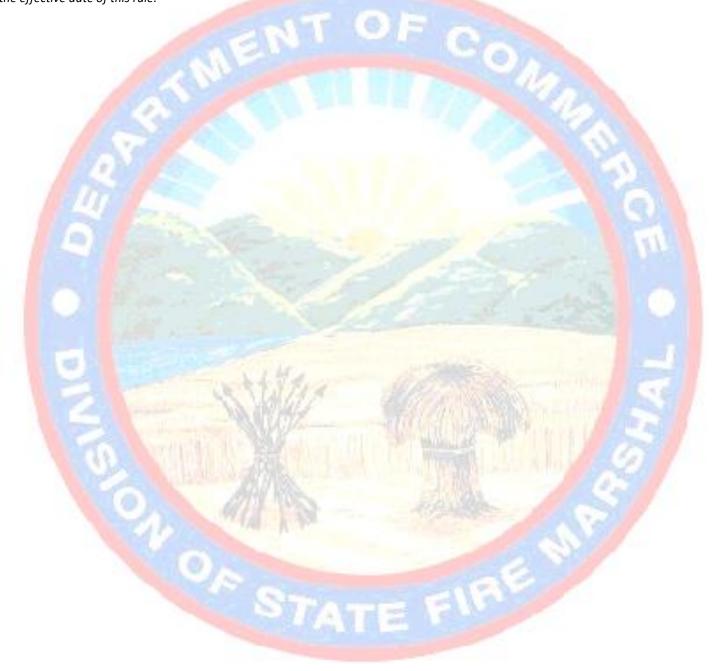
- (a) **320.6.4.1.1.** Signs shall be clearly visible and shall remain unobscured at all times. Signs shall be weather resistant, of contrasting colors, and shall be readable from a minimum distance of 25 feet.
- (7) **320.7 Distance and separation requirements.** While parked and in operation mobile food units, exclusive of awnings and appurtenances, using or containing a fuel source or generator other than the vehicle fuel tank shall be separated from the entrances and other exits of buildings or structures, combustible materials, vehicles and other cooking operations by a clear space distance of 10 feet (3 m).

**Exception:** When approved by the local authority having jurisdiction, mobile food service operations using LP-Gas may be located at a distance of less than 10 feet from other mobile food units except that at no time shall a mobile food unit be closer than 7 feet from other mobile food units.

- (8) 320.8 Generators.
- (a) **320.8.1.** Generators servicing a mobile food unit shall not be fueled while the mobile food unit is in operation.
- (b) **320.8.2.** Generators shall not be fueled while the generator is in use and shall not be fueled until the generator has been turned off and the surface temperature of the engine and fuel tank is below the autoignition temperature of the fuel.

- (c) **320.8.3.** No generator shall be operated or used or fueled within the occupant space of a mobile food unit.
- (9) **320.9 Wiring.** Electrical wiring in a mobile food unit shall comply with this paragraph.
- (a) **320.9.1.** All electrical equipment shall be installed in accordance with NFPA 70 as listed in rule 1301:7-7-80 of the Administrative Code.

(b) **320.9.2.** All electrical wiring shall be contained in exposed conduit in all mobile food units built, manufactured or altered on or after the effective date of this rule.





# CODE COMPLIANCE GUIDELINE Mobile Food Vending Unit Safety Inspection

Below are guidelines to be used for the Cincinnati Fire (CFD) portion of the Mobile Food Vending Unit safety inspections. This list does not cover every possible item that will be inspected, nor does meeting all the guidelines listed below guarantee that a unit will pass inspection.

Please setup an online account at: https://eztrak.cagis.org/citizenaccess

The Cincinnati Fire Department inspection is an operational safety inspection only of the MFVU on the date that it is inspected. It is not an approval of the MFVU's design, construction, road worthiness or an indication of the long-term safety of its combined elements. CFD reserves the right to modify these guidelines as needed.

It is advised that all electrical, ventilation and propane/natural gas piping, tanks, fittings, appliances and systems be constructed and installed by licensed bonded professionals in accordance with NFPA, DOT and Ohio Fire Code standards.

All Fire Department Mobile Food Vending Unit inspections will take place by appointment only.

Units must arrive ready for operation. All systems may be required to be demonstrated: cooking, electrical and ventilation.

## **Appropriate Paperwork:**

- Fire Inspection form with truck/trailer identification information. (VIN, SN or manufacturer ID, License Plate).
- Mobile Food Vending Pressure Leak Certification Form: Propane

## Propane:

- Propane/natural gas piping must be constructed and installed in accordance with manufacturer's recommendations. Propane/natural gas lines that are routed beneath an MFVU must be constructed with rigid pipe. Includes piping to LP generators.
- •Any propane/natural gas line that penetrates a wall/partition must be constructed of rigid piping.

- Any propane/natural gas line/connector that it is not easily identifiable as to its construction or type will not be allowed and the burden of proof that it is being used according to manufacturer's recommendations will be on the MFVU owner.
- All propane tanks DOT approved (within re-qualification date) not to exceed 200lb total for all tanks. Painting of tanks that obscure tank manufacturing or qualification information will not be approved.
- All tanks securely mounted with metal to exterior of vehicle.
- Rear mounted tanks at least 30" above ground to bottom of tank.
- No quick disconnects on any exterior propane tanks (quick disconnects on chassis mounted tanks may be allowed).
- No copper lines connected to LPG tanks.
- Rubber propane hose from regulator to tank to be stamped "Approved for LP Gas 350 psi".
- Moveable-grade, braided, PVC-coated, 304 stainless steel commercial gas connector designed for use with moveable equipment and caster-mounted equipment that is moved on a regular basis for cleaning and repair. Moveable equipment is defined in ANSI Standard Z21.69/CSA 6.16 as gas utilization equipment that may be counted on casters or otherwise be subject to movement.
- A daily propane system leak check should be performed prior to putting the unit into service and after any movement of the vehicle and after movement/change or addition of any gas fed appliance. These leak checks shall be performed with a hand-held listed flammable gas leak detector.
- Exterior emergency shut off sufficient to stop the supply from all propane/natural gas tanks. Required emergency shut off sign.

## **Extinguishers:**

- All units will have at least (1) 3A:40 A-B-C rated extinguisher (1A:20 A-B-C for pushcarts with fossil fuel).
- Any unit using a deep fryer electric or gas will, in addition to the above extinguisher, have at least (1) 6L type "K" wet chemical extinguisher.
- Fire extinguishers shall bear a current inspection tag validated within the past twelve months OR a receipt of purchase within the last 12 months shall be available for inspection.

## **Truck/Trailer Ventilation:**

- It is recommended that any unit using an appliance that produces grease laden vapors should have a Type 1 hood system installed.
- Hood systems shall be of commercial grade: inspected, cleaned and maintained per the Ohio Fire Code.
- All trucks/trailers must be equipped with a working adequate ventilation system. Small trailers will be evaluated for adequate ventilation on a case by case basis.
- Units with deep fryers (electrical/propane/natural gas) must have a commercial/restaurant grade hood system.

## **Cooking Appliances:**

• All cooking appliances must be listed by Underwriters Laboratories or NSF International for mobile applications for the appropriate fuel and be clearly marked with the appropriate rating

- All deep-fat fryers shall be installed with at least a 406mm (16 in.) space between the fryer and surface flames from adjacent cooking equipment. Where a steel or tempered glass baffle plate is installed at a minimum 203mm (8 in.) in height between the fryer and surface flames of the adjacent appliance, the requirement for a 406 mm (16 in.) space shall not apply.
- Movement of appliances with casters shall be limited by a restraining device installed in accordance with the connector and appliance manufacturer's installation instructions.

#### **Detection Systems:**

- All food trucks/trailers must be equipped with a working UL listed carbon monoxide detector suitable for commercial use.
- All food trucks/trailers/push carts must have a hand-held listed flammable gas leak detector.

## Signage:

- Signs shall be clearly visible and of contrasting colors and shall be readable from 25 feet
- Signs shall indicate type of fuel present (1) "PROPANE" (2) "NO SMOKING" inside and outside (3) "EMERGENCY SHUT OFF".

#### **Electrical:**

- All wiring should meet commercial restaurant standards.
- No exposed wiring.
- Installed per NEC 70

## **Egress/Exits:**

• Egress/exits must be adequate and unencumbered by storage, appliances or design.

## **Generators:**

- Must be safely mounted as not to extend into the public right of way.
- Must be securely mounted.
- Must be mounted so as not to impact propane/natural gas systems.



Gas Lines



Fuel Line Shutoff w/ 1/4 turn valve



Signage



K Extinguisher



ABC Extinguisher



Carbon Monoxide Detector



Hand Held Flammable Leak Detector



350 PSI



ASME Guidelines



8 inch Slash guard