

Mobile/Temporary Cooking Equipment

PURPOSE

The purpose of this interpretation is to assist owners/operators of mobile cooking operations and safety codes officers with the minimum requirements under the *Safety Codes Act* for Mobile Cooking Operations (MCO).

DISCUSSION

Application of the Alberta Building Code

While a building means *any structure used or intended for supporting or sheltering any use or occupancy* and an MCO does support temporary occupancy or sheltering a use, an MCO is not purely a “building”. An MCO is also a vehicle that may be parked or sited on a temporary basis and then moves to a different location. Describing an MCO as a building would be similar to describing a recreational vehicle as a building for use as a residential occupancy. If we accept that an MCO is a combination of uses as a vehicle and as a fixed shelter for temporary periods, then a selective application of the *Safety Codes Act* to MCOs is supported by the legislation.

This Interpretation has been jointly developed by Provincial Administrators for Fire, Building, Gas, Plumbing and Electrical disciplines at Alberta Municipal Affairs and the associated fire, building, gas, plumbing and electrical sub-councils of the Safety Codes Council.

APPLICATION OF INTERPRETATION UNDER THE SAFETY CODES ACT

There are specific provisions in the Alberta Building Code 2014 (ABC 2014) which apply to commercial cooking equipment used in an MCO that are also referenced in the Alberta Fire Code 2014 (AFC 2014) related to ventilation and fire suppression equipment.

Clause 1.1.1.1.(1)(m) of Division A of the ABC 2014 states:

Application of this Code

- 1) This Code applies to any one or more of the following:
 - m) the installation, replacement, or *alteration* of equipment regulated by this Code,

Article 6.2.2.7. of Division B of the ABC 2014 states:

Commercial Cooking Equipment

- 1) Systems for the ventilation of commercial cooking equipment shall be designed, constructed and installed to conform to NFPA 96, “Ventilation Control and Fire Protection of Commercial Cooking Operations,” except as required by Sentence 3.6.3.1.(1) and Article 3.6.4.2.
- 2) Fire protection systems for commercial cooking equipment referred to in Sentence (1) using vegetable oil or animal fat shall conform to
 - a) ANSI/UL 300, “Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment,” or
 - b) ULC/ORD-C1254.6, “Fire Testing of Restaurant Cooking Area Fire Extinguishing System Units.”

Issue of this STANDATA is authorized by
the Provincial Fire, Plumbing, Gas, Building
and Electrical Administrators



Ventilation, exhaust and suppression requirements for an MCO are within the scope of National Fire Protection Association (NFPA) 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations" referenced in both the ABC 2014 and AFC 2014.

The 2011 edition of NFPA 96 states that "this document shall apply to":

4.1.9* Cooking equipment used in fixed, mobile, or temporary concessions, such as trucks, buses, trailers, pavilions, tents, or any form of roofed enclosure, shall comply with this standard unless otherwise exempted by the authority having jurisdiction in accordance with 1.3.2 of this standard.

(**1.3.2** The authority having jurisdiction shall determine compliance with this standard and authorize equivalent deviations from it in all applications.)

***A.4.1.9** The authority having jurisdiction can exempt temporary facilities, such as a tent, upon evaluation for compliance to the applicable portions of this standard.

Although it might not be practical to enforce all requirements of this standard in temporary facilities, the authority having jurisdiction should determine that all necessary provisions that affect the personal safety of the occupants are considered.

The Authority Having Jurisdiction (AHJ) may also require additional building and fire code requirements related to fire protection and exhaust/ventilation systems. Examples of the application of the ABC 2014 to an MCO include but are not limited to:

- An MCO with an exhaust hood and fire suppression system is required where the production of smoke, heat and grease laden vapour occurs.
- An MCO with a ventilation system is not required to provide a make-up air system beyond provision of properly sized openable closures that are used for food service.
- An MCO is required to have a fan interlock ensuring that the exhaust fan can only operate when such closures have been opened.

For MCO's operating in or under a "tent" the tent shall conform to CAN/ULC S109 as per Article 3.1.6.5. of Division B of the ABC 2014 which states:

Flame Resistance

- 1) Every tent and *air-supported structure* and all tarpaulins and decorative materials used in connection with these structures shall conform to CAN/ULC-S109, "Flame Tests of Flame-Resistant Fabrics and Films."

NOTE: NFPA has published the 2017 Edition of NFPA 96 "Ventilation Control and Fire Protection of Commercial Cooking Operations" and Annex B specifically speaks to Mobile Cooking Operations.

Application of the Alberta Fire Code

Article 2.6.1.9. of the AFC 2014 requires that commercial cooking ventilation and exhaust systems comply with the requirements of the ABC 2014. The ABC 2014 directs compliance with NFPA 96 for exhaust and fire suppression installations. Article 2.6.1.9. of the AFC 2014 also requires that the ventilation, exhaust and suppression systems be inspected and maintained in accordance with NFPA 96.

Article 2.6.1.9. of Division B of the AFC 2014 states:

2.6.1.9. Commercial Cooking Equipment

- 1) Commercial cooking equipment exhaust and fire protection systems shall be designed and installed in conformance with the ABC.
- 2) Except as required in Sentences (3) to (5), the use, inspection and maintenance of

commercial cooking equipment exhaust and fire protection systems shall be in conformance with NFPA 96, "Ventilation Control and Fire Protection of Commercial Cooking Operations."

- 3) Hoods, grease removal devices, fans, ducts, and other appurtenances shall be cleaned at frequent intervals to prevent surfaces from becoming heavily contaminated with grease or other residues. (See Appendix A.)
- 4) Flammable cleaning materials or solvents shall not be used for the cleaning of exhaust systems.
- 5) Instructions for manually operating the fire protection systems shall be posted conspicuously in the kitchen as part of the fire safety plan.
- 6) Commercial cooking equipment that is certified shall be installed and maintained in conformance with its certification.
- 7) Uncertified commercial cooking equipment shall be installed and maintained so as not to create a fire hazard.

NOTE: Uncertified gas (natural or propane) or electrical appliances are not acceptable for installation in an MCO.

Article 2.1.3.5. of Division B of the AFC 2014 states that the installation and maintenance requirements for a kitchen fire suppression system are in NFPA 17A, "Standard for Wet Chemical Extinguishing Systems".

Article 2.1.3.5. of Division B of the AFC 2014 states:

2.1.3.5. Special Fire Suppression Systems

- 1) Where a special fire suppression system is required by this Code, the system shall conform to one of the standards *listed* in Sentences (3) and (4).
- 3) The design and installation of a special fire suppression system that is not water-based shall conform to one of the following standards:
 - f) NFPA 17A, "Wet Chemical Extinguishing Systems,"

The AFC 2014 also requires Portable Fire Extinguishers for an MCO in accordance with NFPA 10, "Portable Fire Extinguishers".

Under the requirements of Sections 2.8. and 5.1. of the AFC 2014, the fire safety provisions for:

- the safe storage, use and location of gasoline for generators;
- generators to be cooled prior to refueling;
- the location of the MCO at least 3 metres from buildings and other MCOs; and
- the location of any generator 3 metres from a building and the MCO

are all items required under a fire safety plan.

The NFPA's "**FIRE SAFETY TIPS FOR MOBILE COOKING OPERATIONS**" (attached to this Interpretation as Appendix "A") provides a list of items for consideration in the fire safety plan to be developed by the owner/operator and submitted to the local fire department.

The AFC 2014 also requires the electrical and cooking fuel gas systems to comply and be maintained in accordance with the electrical and gas regulations adopted under the *Safety Codes Act*.

Fire Code Interpretation Standata FCI-14-02 provides additional information regarding the application of the AFC 2014 to kitchen exhaust systems and associated fire protection, at:

[FCI-14-02 Fixed Fire Suppression & Exhaust Systems - Cooking](#)

Application of the Electrical Code

The Electrical Code Regulation, section 2, prescribes the conditions for the use of equipment related to electrical systems and applies these requirements to the term “approved” as referenced in the 2015 Canadian Electrical Code, Part 1 (2015 CE Code).

The scope of the 2015 CE Code covers the wiring, equipment, components and accessories of the appliances located and connected within and to a MCO. Electrical equipment must be certified and identified with acceptable markings, as per the Electrical Safety Information Bulletin at:

[Section 2 - Electrical Systems Equipment LEG-ECR-2 \[rev-25\]](#)

In addition, any electrical installation for an MCO shall comply with the requirements of the 2015 CE Code. The installation of wiring and the connection of electrical equipment are identified under the Permit Regulation as activities requiring electrical permits.

Application of the Gas Code

The Gas Code Regulation adopts CAN/CSA B149.1-15 “Natural Gas and Propane Installation Code”, CAN/CSA B149.2-15 “Propane Storage and Handling Code” and CAN/CSA B149.5-15 “Installation Code for Propane Fuel Systems and Tanks on Highway Vehicles”.

The scope of these regulations and codes covers all installation of appliances, equipment, components, and accessories where natural or propane gas is used for fuel purposes. Whenever the installation, extension, alteration or addition of a gas system occurs, compliance with the current code in force is required. Any natural gas and propane system installations in an MCO shall comply with the requirements of these regulations and codes and are identified under the Permit Regulation as activities requiring gas permits.

Application of the Plumbing Code

The Plumbing Code Regulation adopts the National Plumbing Code of Canada 2015. The scope of this code addresses any portion of a plumbing system installation that is not certified as part of a Recreational Vehicle or portable structure.

ADDITIONAL INFORMATION

In addition to the *Safety Codes Act*, MCOs are subject to other legislation (including regulations, codes, bylaws and other rules). The owner/operator is advised to contact:

- Each local municipality for any business licenses, permits, zoning and location approvals and restrictions.
- Environmental Public Health – Safe Food at Alberta Health Services for applicable licensing or inspection requirements. To contact a Public Health office for your local area, please access the following link:

<http://www.albertahealthservices.ca/eph/eph.aspx>

INTERPRETATION

Mobile Cooking Operations (MCO) and equipment, when stationary and used to produce, cook, sell and/or distribute food, support or intend to support an occupancy and subject to select application of the *Safety Codes Act* as set out in this Interpretation (includes regulations made under this *Act* and any codes, standards or body of rules declared in force pursuant to this *Act*).

This Interpretation applies to all portable/temporary food-service and cooking equipment including but not limited to food truck, vending truck, chip truck, burger wagon, doughnut shack, mobile/portable food vending unit, hot dog cart and other MCO uses in Alberta. The MCO may utilize electricity, wood, charcoal, propane or natural gas as energy for cooking and may use either supplied or on-site generated electricity to power lights, fans and cooling equipment.

This INTERPRETATION is applicable throughout the province of Alberta.

Issue of this STANDATA is authorized by
the following Administrators:

[Original Signed]

Tina Parker
Provincial Fire Administrator

[Original Signed]

Sidney Manning
Provincial Plumbing and Gas Administrator

[Original Signed]

Paul Chang
Provincial Building Administrator

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Clarence Cormier
Provincial Electrical Administrator

FIRE SAFETY TIPS FOR MOBILE COOKING OPERATIONS



General

- Does your jurisdiction require a license or permit to operate (e.g. local fire/health department)?
- Is cooking equipment attended at all times?
- Are all required ventilation openings open during cooking operations?
- Is the cooking hood/ventilation system free from grease?
- Is the vehicle parked at least 3 m from buildings, other vehicles, or combustibles?
- Is the vehicle parked so as not to block fire hydrants, fire lanes, fire department connections, exits, etc.?

Training

- Are employees trained in proper use of cooking equipment?
- Are employees trained in how to shut-off fuel sources (e.g. propane, generators)?
- Are employees trained in how to notify the local fire department in an emergency?
- Are employees trained in proper storage, handling and fueling procedures?
- Are employees trained in how to perform a leak test and when one is needed?
- Are workers trained in the proper use of portable fire extinguishers and hood extinguishing system?

Fire Protection

PORTABLE FIRE EXTINGUISHERS

- Are portable fire extinguishers charged, not obstructed, and in operating condition?
- Are portable fire extinguisher located near the cooking appliance, solid fuel storage, and any portable energy source (e.g. generator)?

Hood Fire Suppression System

- Is the hood fire suppression system charged and in operating condition?

Fuel and Power Sources

PROPANE

- Is the propane system inspected prior to use?
- Are the propane tanks secured in an upright position?
- Are the propane tanks within their hydrostatic test date?
- Is the propane system in good condition, (i.e. no leaks, rust)?
- Has the propane system been leak tested?
- Has a leak test been performed when a new tank is installed, or a modification to the system has been made?
- Is documentation available for any leak test?
- Is the main shut-off marked, in plain view and easily assessable?
- Is the fuel supply shut off when not in use and while in transit?
- On gas system piping, is a flexible connector installed between the regulator outlet and the fixed piping system?



ELECTRICAL

- Is the electrical system and other equipment in good working condition?
- Are extension cords in good condition?
- Is the electrical system, including extension cords in accordance with the electrical code?

GENERATORS

- Are generators placed at least 3 m from buildings, structures, vehicles and combustibles?
- Are generator exhausts directed away from mobile cooking vehicle, vehicles, buildings, structures, exits and openings?
- Are generators protected from contact by the public?
- Are fuel supplies properly stored?
- When refueling are the generators shut down, engine cooled and then refueled?

SOLID FUEL

- Is combustible solid fuel stored properly and away from combustibles or heat producing appliances?
- Are ashes, cinders, and other fire debris removed at the end of the day and stored in a proper container away from the vehicle, buildings and combustibles?

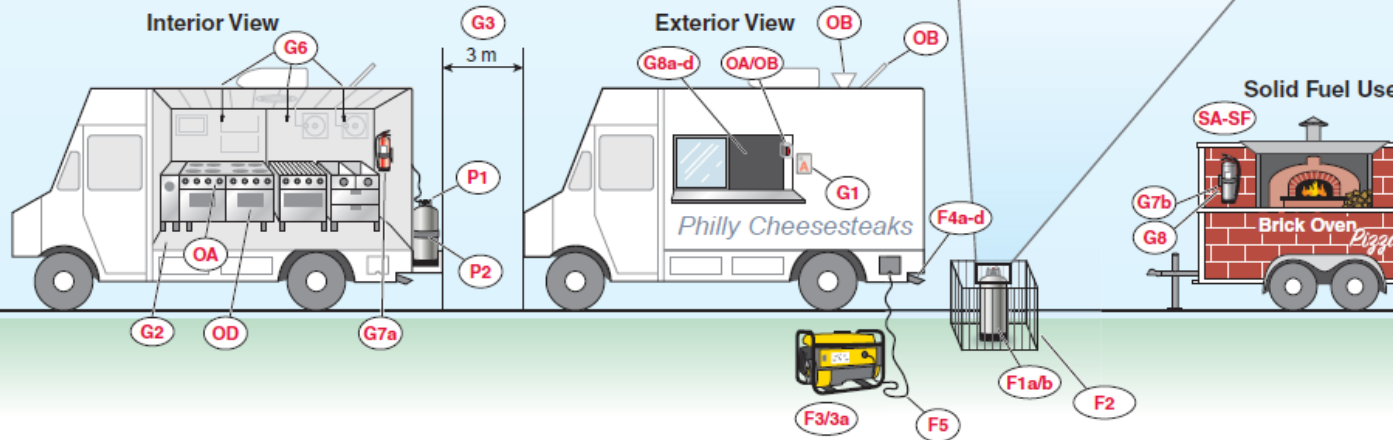
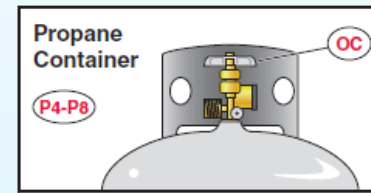
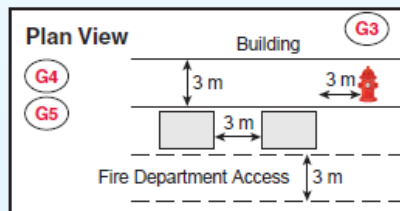
» NOTE: This Safety Sheet has been developed by the Ministry of Alberta Municipal Affairs, Community and Technical Support Division and is based on the "Fact Sheet for Food Truck Safety" created by the National Fire Protection Association ("NFPA"). The Ministry of Alberta Municipal Affairs is solely responsible for the content of this Sheet and therefore the NFPA takes no responsibility whatsoever for its contents and further the NFPA makes no warranty as to the accuracy or completeness of any information contained therein. This information is provided to help advance safety of mobile and temporary cooking operations. It is not intended to be a comprehensive list of requirements for mobile and temporary cooking operations. Check with the local jurisdiction for specific requirements. This safety sheet does not represent the official position of the NFPA or its Technical Committees. The NFPA disclaims liability for any personal injury, property, or other damages of any nature whatsoever resulting from the use of this information. For more information, go to nfpa.org/foodtrucksafety.



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FACT SHEET » Food Truck Safety



NATIONAL FIRE PROTECTION ASSOCIATION
 The leading information and knowledge resource on fire, electrical and related hazards

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FACT SHEET » Food Truck Safety (continued)

Code references are provided at the end of each item. The red keys correspond to the NFPA food truck safety diagram. For more detailed information, see Annex B in NFPA 96.

GENERAL SAFETY CHECKLIST

- Obtain license or permits from the Local Authority Having Jurisdiction. [SCA] **G1**
- Ensure there is no public seating within the mobile food truck. **G2**
- Check that there is a clearance of at least 3 m away from buildings, structures, vehicles, and any combustible materials. [NFPA 96:7.8.2; 96:7.8.3 NOTE: Check with Local Authority Having Jurisdiction] **G3**
- Verify fire department vehicular access is provided for fire lanes and access roads. [AFC 2.5.1.5.] **G4**
- Ensure clearance is provided for the fire department to access fire hydrants and access fire department connections. [AFC 2.5.1.4.] **G5**
- Check that appliances using combustible media are protected by an approved fire extinguishing system. [NFPA 96:10.1.2, B149.2:4.15] **G6**
- Verify portable fire extinguishers have been selected and installed in kitchen cooking areas in accordance with NFPA 10. [AFC 2.1.5.1., & 6.2, NFPA 96:10.9.3] **G7a**
- Where solid fuel cooking appliance produce grease-laden vapors, make sure the appliances are protected by listed fire-extinguishing equipment. [ABC 6.2.2.7., NFPA 96:14.7.1] **G7b**
- Ensure that workers are trained in the following: [NFPA 96:B.15.1] **G8**
 - Proper use of portable fire extinguishers and extinguishing systems [NFPA 10:1.2] **G8a**
 - Proper method of shutting off fuel sources [NFPA 96:10.4.1] **G8b**
 - Proper procedure for notifying the local fire department [NFPA 1:10.14.9] **G8c**
 - Proper procedure for how to perform simple leak test on gas connections. [B149.1:4.4.2] **G8d**

FUEL & POWER SOURCES CHECKLIST

- Verify that fuel tanks are filled to the capacity needed for uninterrupted operation during normal operating hours. **F1a**
- Ensure that refueling is conducted only during non-operating hours. [NFPA 96:B.18.3] **F1b**
- Check that any engine-driven source of power is separated from the public by barriers, such as physical guards, fencing, or enclosures. [NFPA 96:B.16.2.2] **F2**
- Ensure that any engine-driven source of power is shut down prior to refueling from a portable container. **F3**
- Check that surfaces of engine-driven source of power are cool to the touch prior to refueling from a portable container. **F3a**
- Make sure that exhaust from engine-driven source of power complies with the following: **F4**
 - At least 3 m in all directions from openings and air intakes [NFPA 96:B.13] **F4a**
 - At least 3 m from every means of egress [NFPA 96:B.13] **F4b**
 - Directed away from all buildings **F4c**
 - Directed away from all other cooking vehicles and operations **F4d**
- Ensure that all electrical appliances, fixtures, equipment, and wiring complies with the Canadian Electrical Code. **F5**

PROPANE SYSTEM INTEGRITY CHECKLIST

- Check that the main shutoff valve on all gas containers is readily accessible. [B149.5:5.3.5.6] **P1**
- Ensure that portable gas containers are in the upright position and secured to prevent tipping over. [B149.2:6.1.8 & 5.5] **P2**
- Inspect gas systems prior to each use. [NFPA 96:B.19.2.3] **P3**
- Perform leak testing on all new gas connections of the gas system. [B149.1:4.12.1 & 6.22.3] **P4**
- Perform leak testing on all gas connections affected by replacement of an exchangeable container. [B149.5:5.7.10.3] **P5**
- Document leak testing and make documentation available for review by the authorized official. [B149.5:Annex F] **P6**
- Ensure that on gas system piping, a flexible connector is installed between the regulator outlet and the fixed piping system. [B149.1:6.16.3] **P7**
- Where a gas detection system is installed, ensure that it has been tested in accordance with the manufacturer's instructions. [NFPA 96:B.19.2.1] **P8**

OPERATIONAL SAFETY CHECKLIST

- Do not leave cooking equipment unattended while it is still hot. (This is the leading cause of home structure fires and home fire injuries.) **OA**
- Operate cooking equipment only when all windows, service hatches, and ventilation sources are fully opened. [B149.1:4.25.6, NFPA 96:14.2.2 & 14.2.3] **OB**
- Close gas supply piping valves and gas container valves when equipment is not in use. [B149.2:5.12.5] **OC**
- Keep cooking equipment, including the cooking ventilation system, clean by regularly removing grease. [NFPA 96:11.4] **OD**

SOLID FUEL SAFETY CHECKLIST (WHERE WOOD, CHARCOAL, OR OTHER SOLID FUEL IS USED)

- Fuel is not stored above any heat-producing appliance or vent. [NFPA 96:14.9.2.2] **SA**
- Fuel is not stored closer than 0.92 m to any cooking appliance. [NFPA 96:14.9.2.2] **SB**
- Fuel is not stored near any combustible flammable liquids, ignition sources, chemicals, and food supplies and packaged goods. [NFPA 96:14.9.2.7] **SC**
- Fuel is not stored in the path of the ash removal or near removed ashes. [NFPA 96:14.9.2.4] **SD**
- Ash, cinders, and other fire debris should be removed from the firebox at regular intervals and at least once a day. [NFPA 96:14.9.3.6.1] **SE**
- Removed ashes, cinders, and other removed fire debris should be placed in a closed, metal container located at least 0.92 m from any cooking appliance. [NFPA 96:14.9.3.8] **SF**

REFERENCED DOCUMENTS

- Safety Codes Act and its Regulations
- Alberta Building Code 2014
- Alberta Fire Code 2014
- CSA C22.1-15 Canadian Electrical Code
- CSA B149.1-15 Natural Gas and Propane Installation Code
- CSA B149.2-15 Propane Storage and Handling Code
- CSA B149.5-15 Installation Code for Propane Fuel Systems and Containers on Motor Vehicles
- NFPA 10 Standard for Portable Fire Extinguishers, 2010 Edition
- NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, 2017 Edition

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