

MOBILE FUEL VENDING

What is on-demand mobile fuel vending?

There is an emerging industry in North America for service companies to offer on-site/on-demand fueling to parked motor vehicles as a convenient alternative to consumers rather than having them drive to a gas station to refuel their motor vehicle. The concept allows patrons to use a smartphone app and arrange to have fuel dispensed into their vehicle at a time and location that they choose based on their schedule. This concept allows the fuel supplier to deliver fuel (gasoline) directly to your vehicle – on demand fuel vending.

Is this a safe procedure?

While convenient to consumers, municipalities throughout North America have raised a number of safety concerns. In particular, some service companies have operated without inquiring with governing bodies if there are any fire code or health and safety requirements prior to offering their services.

The National Fire Code – 2019 Alberta Edition (NFC (AE)) does not address mobile fueling and, until recently, there has been no regulations that specifically cover this activity.

As a result of public safety concerns, the 2018 editions of the International Fire Code (IFC) added Section 5707 and the National Fire Protection Association (NFPA) 30A Code for Motor Fuel Dispensing Facilities and Repair Garages added Chapter 14 to address mobile fuel vending to minimize safety risks. However, neither the IFC nor NFPA 30A documents are referenced in Canada to date.

NFPA, NFC(AE) and best practices tips for on-demand mobile fuel vending that municipalities may wish to consider.

To limit safety risks, a municipality may establish and adopt a best practices guide based on the combined requirements of NFPA 30A Chapter 14 and related requirements of the NFC(AE) to allow this activity to take place within their jurisdiction. This best practices guide may be in addition to any local, provincial and federal requirements.

SAFETY TIPS

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In order to safely dispense gasoline and diesel fuel from a mobile fuel vending vehicle into the fuel tank of a motor vehicle, the following best practices should be taken into consideration:

Approvals and Mobile Fueling Locations

- 1) Mobile fuel vending should require the approval by the authority having jurisdiction (AHJ), and consent from the owner of the property on which the fueling will occur.
- 2) Driver's should:
 - a. Hold a valid Driver's License.
 - b. Hold a Valid Transportation of Dangerous Goods certificate.
 - c. Have received Workplace Hazardous Material Information System (WHMIS) training.
 - d. Have fire extinguisher training.
 - e. Possess evidence of training on proper fueling procedures that satisfy the intent of training requirements as per Occupational Health and Safety Code for the Province of Alberta.
- 3) Mobile fuel vending operators should have a safety and emergency response plan available on each mobile fuel vending vehicle. It is the responsibility of the fuel vending operator to update the safety and emergency response plan so that it is acceptable to the AHJ. The safety plan should include, but is not limited to:
 - policies and procedures for fire safety
 - spill prevention and control
 - personal training
 - compliance with other applicable local, provincial and federal requirements
 - guideline for where mobile fueling is prohibited by the AHJ (residential streets, school grounds etc.)
- 4) Evidence of training on proper fueling procedures and the safety and emergency response plan should be in the possession of the operator at all times while conducting mobile fueling. The operator should also be trained on the requirements of the accepted best practice guideline approved by the AHJ.
- 5) Vehicle operator training may need the approval of the AHJ.
- 6) Mobile fuel vending should not take place within 7.6 m (25 ft) of buildings, property lines, or combustible storage unless authorized by the AHJ.
- 7) An approved storm drain cover or equivalent method that will prevent any fuel from reaching the storm water sewer system should be used when mobile fuel vending occurs within 7.6 m (25 ft) of a storm drain.

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- 8) Mobile fuel vending delivery vehicle should not park in buildings, and in or on covered parking structures.

Mobile Fuel Vending Vehicles and Equipment

- 1) Mobile fuel vending vehicles should comply with all applicable local, provincial, and federal requirements.
- 2) A mobile fuel vending vehicle should be:
 - a. A vehicle with chassis-mounted tanks, each of which does not exceed 450 L (119 gal), that does not exceed an aggregate capacity of 4500 L (1,189 gal). (NFPA 30A)
 - i. These portable tanks shall be built in conformance with CAN/CGSB 43.146 – 2016.
- 3) Dispensing hose assemblies should conform to CAN/ULC-S612, “Hose and Hose Assemblies for Flammable and Combustible Liquids.” and the hose should not exceed 15 m (50 ft.) in length.
- 4) A breakaway coupling conforming to ULC-S644, “Emergency Breakaway Fittings for Flammable and Combustible Liquids” should be provided at the nozzle.
- 5) Dispensing nozzles should automatically close and conform to CAN/ULC-S620, “Hose Nozzle Valves for Flammable and Combustible Liquids.”
- 6) The nozzle should not have a hold open device.
- 7) A listed fuel shutoff switch and a listed shutoff valve assembly should be provided on the delivery vehicle, which is to be clearly identified and readily accessible to attendants and emergency responders.
- 8) The pump should be listed to CSA B346-M, “Power-Operated Dispensing Devices for Flammable Liquids.”
- 9) The meter should meet the requirements of the Weights and Measures Act and Regulation. (Government of Canada)
- 10) A minimum of one 4A-80 B:C fire extinguisher meeting the requirements of the NFC(AE) should be installed on any mobile fuel vending vehicle.
- 11) A minimum 18.9 L (5 gal) spill kit should be provided on a mobile fuel vending vehicle.
- 12) Weather-resistant NO SMOKING signs should be prominently displayed on the mobile fuel vending vehicle and be visible from all sides.

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Operations

- 1) Nighttime deliveries should only be made if approved by the AHJ.
- 2) The flasher lights of the mobile fuel vending vehicle should be in operation while dispensing operations are in progress.
- 3) Safety cones or barriers should be employed to protect the vehicle fuel vending area to include the fill vehicle and receiving vehicle.
- 4) As bonding is necessary with all fueling operations, a means for bonding should be provided for mobile fuel vending as well. Usually the nozzle and hose assemblies are listed components but when there is a plastic insert that does not allow an electrical and/or metallic connection between the ground and the vehicle being filled, a different means of bonding should be provided.
- 5) Unless controlled in a manner that will not create a fire or explosion hazard, a device, operation or activity that produces open flames, sparks or heat should not be permitted.
- 6) A qualified attendant should be in constant control when dispensing gasoline or diesel fuel into the fuel tanks of motor vehicles, watercraft or aircraft, or into containers.
- 7) Mobile fuel vending vehicles should be positioned in a manner that the vehicle does not obstruct vehicles and the dispensing hose is protected from other vehicles driving over it.

In addition, municipalities may require a Quantitative Risk Assessment that is signed by a professional engineer before allowing a company to provide this type of service.

NOTE: Prior to engaging in on-demand mobile fuel vending activities, the owner should contact the local Authority Having Jurisdiction (Local Fire Department) to see if any regulations should be met.

Contact

Please contact your local Fire Department for any questions regarding this Safety Tip.

