

# Gas on the Go

## Mobile refueling/on demand fuel delivery

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The costs of refueling, both in time and cost of the fuel, represent a significant budget item for fleet operations including truckers, limo and taxi cab services, delivery services and buses. In addition to the cost of the fuel itself, there is the lost time and mileage to get to a station and pump the fuel rather than providing goods and services. Keeping track of the expenditures can also be difficult. Mobile refueling is one solution that can mean a substantial savings in time and money.

Mobile fueling is not a new concept or practice. Fleet refueling has existed for many years. A fuel service comes to the garaging site for a company with a tanker truck and refills the gas tanks of all of the vehicles. Onsite refueling services are available for diesel, compressed natural gas and other alternative fuels.

In addition to scheduled fleet refueling, technology now makes on demand fueling, or “Uber for Gas” a reality for individuals. This is where regulations need to be updated, and underwriting questionnaires need to be revised to address the potential for onsite refueling operations. At some point in time, we have all started off the day running late. You have a meeting first thing in the morning and have to rush to get there on time. Halfway there you realize your fuel tank is almost empty. You don’t have the time to stop for gas and make it to work on fumes. Instead of worrying if you can make it to a gas station after work, you download an app to your smartphone and plug in your vehicle’s location, description and amount of fuel needed along with payment information. A service comes to your car and pumps the fuel. Payment is transferred electronically.



There has been a dramatic increase in these mobile fueling services. This is a relatively new phenomenon, with companies sporting names like Gas Ninjas, Filled and Yoshi attracting serious startup money to expand in California and Oregon. However, there are also on demand fuel services further east, in Houston, Nashville, Atlanta, Miami and as far north as Washington, D.C.

Safety issues present a significant concern. The practice of onsite mobile refueling results in an increased fire and explosion hazard and represents a challenge to both underwriters and claims operations. In addition to standard automobile/truck insurance, mobile refueling companies must purchase liability coverage for potential environmental, property damage and bodily injury exposures. Imagine a truck, filled with perhaps thousands of gallons of fuel in either tanks or separate containers, driving into a parking garage under a high rise residential or office building. In October 2015, the Fire Department of New York (FDNY) issued updated regulations for the handling and storage of Liquid Petroleum Gas (LPG) and Compressed Natural Gas (CNG).

Cities like San Francisco and Santa Clara, California have banned these services pending further regulatory review and the development of specific standards that address issues such as:

1. What kind of training do the drivers have? Are there any certifications at all?



2. How much gas are these trucks going to be carrying in residential neighborhoods or near schools?
3. Where are they allowed to fill up, in a parking garage or on a public street?

The new services have been relying on the International Fire Code related to equipping their trucks, driver training, amount of fuel carried and operations during the fueling. However, states like California wanted the applicable National Fire Protection Association (NFPA) Code to provide guidance for on demand fueling operations.

The NFPA is in the process of revising the standard, NFPA 30A: Code for Motor Fuel Dispensing Facilities and Repair Garages, that provides this guidance.

NFPA 30A addresses safe practices for handling of flammable and combustible fluids in repair garages, fuel dispensing operations and marinas. The code goes into great detail on fuel tanks, fuel dispensers, and sources of ignition, giving specific requirements for building construction and building services to reduce the chance of fire or other injury to a minimum. It also addresses new fuels such as CNG & LNG (compressed and liquid natural gas) and hydrogen. Electrical systems, elements of a clean environment as well as fuel dispensing on farms or remote sites are addressed in the code.

NFPA 30A allows the dispensing of Class I and Class II liquids from tank vehicles under specific guidelines. Class I liquids would be gasoline; Class II liquids would be diesel fuel. It specifies this would be done on sites for governmental, industrial and commercial operations. It is intended for controlled locations, for vehicles connected with the business. It is not authorized until the “Authority Having Jurisdiction” (AHJ) conducts an inspection and gives its approval. This could be the municipality, state or insurance company, or all three. The tank vehicle, hose and nozzles are addressed. Fueling at night is permitted only if the AHJ deems that it is adequately lit. Finally, expansion space for fuel is addressed to prevent overflow.

Nils Deacon, senior inspector for MSO, is a member of the technical committee for NFPA 30A. “The technical committee has deemed it important enough as an emerging issue to devote a new chapter to it, Chapter 14 On-Demand Mobile Fueling,” Deacon said. “This does not happen often in the code and standard revision process. The scope of the new chapter shall apply to the retail practice of fueling motor vehicles of the general public while the owner’s vehicle is

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parked and might be unattended.”

The code will require that the AHJ and the owner of the property must approve of the refueling operation. Some refueling services have made prior arrangements with companies that have many employees (such as corporate campuses) to refuel employees’ vehicles in the parking lot.

A safety/emergency plan will be required to be kept on the dispensing vehicle. This might include procedures for spill prevention, fire safety and driver training. Site plans could be required



by the AHJ concerning items such as storm drains, building locations and property lines. The specific content of the plans would depend on the AHJ, so there is wide leeway, either for very specific instructions or general guidelines.

Training of the “mobile fueling vehicle operator” is addressed in the code, again deferring to the AHJ and Federal Regulations and HAZCOM. Presently, the companies engaged in refueling require a commercial driver’s license and training in fuel delivery and dispensing. Specifics are provided concerning where the fueling is permitted. A 25-foot distance to buildings, property lines and combustible storage is required. You wouldn’t want them refueling next to an apartment building or a playground.

If fueling is within 25 feet of a storm drain, storm drain covers are required in case there is a spill. Spill kits that can “mitigate and dispose of leakage or spills” are required. Very importantly, fueling is not allowed in buildings, including covered parking garages. It also is not allowed on public streets and other public areas.

The amount of fuel carried is also a consideration. Drawing on previous requirements and the international fire code, a tank vehicle can carry a total of 1200 gallons in a variety of tanks, but the tanks can be no greater than 110 gallons each. The use of gasoline cans is permitted. If the vehicle is too far for the hose to reach, the operator can put gas in the vehicle with cans. They must be metal safety cans, no more than 5 gallons each, with a maximum of 60 gallons per truck. Cans must be properly secured to the vehicle when not in use.

There are further requirements for the hose and nozzle assemblies so they comply with the standard for service

station pumps. They have to be UL listed and properly metered. As in the fleet refueling citation, an expansion space is required to prevent overflow.

Fire protection is addressed by requiring a minimum 4A80BC multipurpose fire extinguisher.

Flashing lights and safety cones or other barriers are required as well as “No Smoking” signs. Bonding and grounding of the vehicles is necessary so a spark of static electricity does not cause a fire. Vehicles must be attended at all times and must not block emergency vehicle access roads.

Hoses must not be laid across a street or driveway where it could be run over by another vehicle.

It is important to note that this new chapter for “On Demand Fueling” is all new code language that will not be part of the official code until the revision cycle is over in 2017. It was promulgated and accepted by the technical committee to meet the need to provide guidance to the municipalities, states and other AHJs that are challenged with this new practice.

The first modern gas or service stations were developed a century ago, with pumps and tanks designed for the purpose of fueling vehicles. Through the years, NFPA developed standards to help keep them as safe as possible for customers and employees.

Will this new refueling practice be the wave of the future and spell the end of fixed fueling stations, dispensing gasoline, diesel fuel and the new alternative fuels such as LNG? Some on demand fueling companies are already gearing up to offer fueling of the alternative fuels. It is such a new industry that much will need to be learned, in the field, at a practical level.

NFPA 30A, and other code and standard organizations will be following the new developments and establishing codes and standards to help keep everyone as safe as possible.

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