

Reduce the risk of propane explosions in food trucks

By Jesse Marchand

On February 24, a food truck exploded in Eugene, Oregon. Luckily no one was hurt in the blast, but the force of the explosion was enough to destroy the truck, shake the ground, and blow off the door of a nearby business. While such events are rare, they can be catastrophic. Food truck owners and operators should take steps to reduce the risk.

Food trucks generally use propane to fuel cooking and other equipment. Propane is a handy fuel source, but it can also be a danger if the fuel tank leaks and the propane builds up inside a truck and ignites.

As Darrin McCaskill, WorkSafeBC's director of programs, projects and initiatives, points out, "Not only are workers inside the trucks at risk, but because food trucks congregate in highly populated areas, such as events and festivals, the risk extends to the general public."

Not an isolated incident

There have been several high-profile incidents involving food truck explosions in North America. In 2014, a food truck in north Philadelphia exploded, killing the owner and her teenage daughter, severely burning three nearby minors, and injuring many others. In 2015, an explosion in Florida blew apart the vehicle, shattered the windows of neighbouring homes, and caused the ceilings of two nearby houses to collapse. In July and August of last year alone, there were at least five food truck fires and explosions in the United States and Canada.

To help prevent incidents in B.C., WorkSafeBC's Risk Analysis Unit (RAU) has conducted an in-depth assessment of this risk through research, inspections, and consultations with industry. It also developed a bulletin that provides practical details about on-site hazards and safe work practices for food trucks: "Reducing the risk of propane explosions in food trucks." So far, WorkSafeBC has engaged with more than 40 food truck employers, organizers of festivals

that feature food trucks, and a variety of municipalities and fire departments.

Rhonda Langlois, an occupational hygiene officer at WorkSafeBC who has been meeting with employers over the past year, says that the response so far has been positive.

“Food truck operators have been receptive to our concerns around the risk of fire safety and the safe handling of propane, and many felt the bulletin was useful to have on site, especially for new workers coming on board,” says Langlois. “They know there is risk involved in working around propane, but the bulletin provides owners and operators with concrete information on where to look for propane leaks and potential sources of ignition.”

Five things to consider for a safer food truck

The following five tips, adapted from the WorkSafeBC bulletin, offer a starting place for food truck owners and operators to improve their safety and take precautions to reduce the risk:

- 1 **Consider your layout.** How your food truck is designed affects your safety. Your layout should maximize ventilation, to ensure propane gas (which is heavier than air) doesn't accumulate. Store spare propane tanks securely outside the truck in an upright position. Exits should always be kept clear of obstructions that could hinder a quick escape in an emergency.
- 2 **Check your equipment.** Buying used equipment might be economical, but it's important to make sure it still meets manufacturers' specifications. Don't use expired propane tanks. Conduct inspections and perform maintenance on your equipment regularly and make sure you have a working and properly calibrated detector for flammable gas.
- 3 **Create and implement safe work procedures.** Take the time to develop and implement clear procedures for starting up and shutting down propane-fuelled equipment. You also need safe work procedures for the delivery, storage, and changing of propane tanks. Post signage warning not to smoke, have open flames, or operate power tools near propane tanks. And, never ever drive your truck while the propane is on or lit.

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—Rhonda Langlois, occupational hygiene officer, WorkSafeBC

- 4 **Train and supervise your staff.** Once you have written these procedures, don't just leave them in your desk at home. Make sure your workers are trained in all safe work procedures. This includes having a Workplace Hazardous Materials Information System (WHMIS) and training workers in the safe handling of ignition sources and propane tanks. Give your workers the opportunity to speak up if they have questions or are having difficulty following the plan. Your safe work procedures only work if they are understood and followed.
- 5 **Have an emergency plan.** No one wants an emergency to happen, but if it does, you need to be prepared by developing, implementing, and testing an emergency plan. Your plan should include:
 - Emergency response and evacuation procedures. Take into account the evacuation route and crowd that may be nearby.
 - Emergency response equipment, such as a fire extinguisher that is visible, accessible, and in good working condition.
 - Site-specific emergency contact information. Don't rely on cellular service always being available. Consider having a satellite phone, and have instructions on where to go for help nearby.

For more information

This article outlines just some of the hazards and safe work practices to mitigate them. Search for the bulletin [Reducing the risk of propane explosions in food trucks](#) on [worksafebc.com](#) to find out more. ☺