

## **Fuel Storage at Temporary Construction Projects**

Requirements for fuel storage and dispensing at construction sites can be unnecessarily confusing. In Alberta the Fire Code regulates storage and dispensing of flammable (e.g. gasoline) and combustible (e.g. diesel) liquids. Because construction site fuelling requirements are of a temporary nature the Fire Code provides an exemption for typical approval and tank registration requirements. This exemption, however, should not excuse companies from using sound practices to protect their employees and the environment from risks associated with fuel storage systems.

Many construction companies lease tanks and dispensing equipment in a 'turn-key' relationship that usually includes fuel. Tank and fuel suppliers are typically aware of technical and safety requirements so the supplier can reduce much of the confusion about what must and should be considered when setting up your fuelling station. A proper setup will include a storage tank that is constructed to a ULC standard. Farm tanks are not constructed to a ULC standard and do not meet requirements of the Fire Code. Because your fuelling station must be periodically moved, a double-walled storage tank will probably be used instead of a single-walled tank and conventional secondary containment dike. Double-walled tanks are not worry free. Overfills on the tank and leaking connections will not be collected without conventional secondary containment. When using a double-walled tank, ensure that the tank is equipped with a device to shut off delivery before the tank is overfilled. This is especially important when the fuel supplier fills the tank with a tight-fill camlock connection.

Tanks must be protected from collision. For temporary installations the easiest solution is to use "Jersey" barriers. Any part of the tank that can be struck by vehicles or equipment should have a concrete barrier measuring at least 2.5 feet high and wide located no closer than 2 feet from the tank shell. Some aboveground tanks come with vertical, steel posts forming part of the tank's skid. This may adequately provide collision protection.

Aboveground tanks are normally placed in concrete aprons, making the collection of spilled fuel an easier task. This luxury isn't available at temporary construction sites. Companies might want to use compacted clay in the area of the tank and fuelling position to make collection of spills easier. Some construction companies place a synthetic liner below grade to ensure fuel does not get to groundwater or flow off site. All sites should have a commercially available spill kit near the tank. The kit should include absorbent oil socks and granular absorbent. If the fuelling facility is located near a body of water, absorbent booms should be part of the kit. A contingency plan should be readily available if a fuel spill was to occur. The plan should include clear instructions on protecting personnel, stopping and containing the spill and notifying the fire department and Alberta Environment.

Alberta's Occupational Health and Safety Code places responsibility on the employer to ensure workers dispensing fuel take precautions to prevent fuel from overflowing or spilling. The Code prohibits smoking within 7.5 metres while fuelling or engines running during fuelling operations. Signage must be installed to indicate smoking and engine-running prohibition. A 40 BC fire extinguisher must be installed in close proximity to the fuel tank. Hose retractors should be installed and maintained to prevent hoses from getting run over or ripped off. If electric power is available at the site an emergency shutdown switch should be located between 6 and 10 metres from the dispensing location. The company should have written and communicated policies on fuel delivery and dispensing operations.

For further information on fuel storage and dispensing best practices please contact the Petroleum Tank Management Association of Alberta at 1-866-222-8265 [www.ptmaa.ab.ca](http://www.ptmaa.ab.ca)

