

What's the Risk?

Tank Protection from Vehicular Impact

Introduction

Damage to propane, gas or oil tanks from vehicular traffic can occur if left unprotected. The photo to the right shows a garage/workshop with an unprotected tank. Tanks in an area well travelled by vehicles and other farm equipment could be damaged or destroyed by vehicles impacting them, resulting in discharge of contents.



What's the Risk?

A minor impact by a car, tractor or other equipment could result in damage which could cause leakage of the contents. The movement of the tank from the impact could result in damage to the service lines. The line could be subject to leaks or even complete breakage. Unprotected tanks have the potential for spills, leaks, explosions, fire and environmental incidents if damaged by a vehicle.



What can be done?

The easiest way to protect tanks is through the installation of bollards. A bollard is a short post designed to guide traffic or protect items such as tanks from vehicle impact. It provides a very effective visual barrier for vehicles and can offer significant impact protection.

The Liquid Fuels Handling Code requires above ground tanks, exposed to vehicular traffic, to be protected from impact. The protection should be constructed in accordance with good engineering practice. Below are excerpts from CSA B149.15 Propane Storage and Handling Code outlining best engineering practices for bollards.

6.19.4.1

Posts used for the protection of a tank shall

- (a) Be spaced not more than 54 inches (1350 mm) apart;
- (b) Be buried not less than 36 inches (900 mm) below grade;
- (c) Extend at least 30 inches (750 mm) above grade; and
- (d) Be one of the following:
 - i. 4 inch (100 mm) capped steel pipe;
 - ii. 4 inch (100 mm) tubing filled with concrete;
 - iii. 8 inch (200 mm) pressure-treated wood, either square or round;
 - or
 - iv. 6 inch (150 mm) minimum

