

DOUBLE CONTAINMENT

WHERE DO I START?



It's the law

Canadian Environmental Protection Act, 1999 (CEPA)

In 2008, under CEPA, regulations concerning storage tank systems for petroleum-based products were introduced, requiring any associated underground piping transporting these products to be double contained if the storage tank meets the criteria outlined in the regulations.

- **SOR/2008-197 – Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations**

National Fire Code of Canada (NFC)

The NFC states that all underground piping systems used for the transportation of flammable and combustible liquids must be double contained for buildings and facilities that fall under the jurisdiction of the code.

- **SOR/National Fire Code of Canada 2020, Section 4.5. Piping and Transfer Systems**

Leak Detection

In addition to double contained underground piping, monitoring of the interstitial space (i.e. the space between the inner and outer pipe) is also required under these federal regulations/codes.

- **National Fire Code of Canada 2020, Table 4.4.1.2.-C – Leak Detection Testing and Monitoring of Underground Piping Systems**

How do we DESIGN Double Containment?

1. Material Selection



Chemical Compatibility

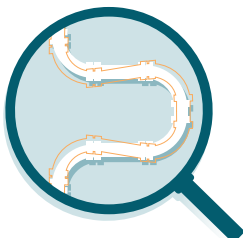


Pressure



Temperature

2. Thermal Expansion & Contraction



3. System Layout



How do we MONITOR Double Containment?

