

# Excavation safety

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## Steps to stay safe

1. Call BC ONE CALL to request gas line location records at least three business days before you start excavation. This is a requirement of Terasen Gas and provincial gas safety regulations.
2. Have gas line information on site during the excavation.
3. Use the gas line information to locate and mark lines with paint or stakes and maintain them until digging is underway.
4. HAND DIG FIRST to expose gas lines before using mechanical equipment.

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*Terasen Gas acknowledges the assistance and cooperation of the British Columbia Safety Authority.*



## You could damage much more than a gas line

Excavating is serious business. That's why it's critical to take due care.

Knowing where natural gas pipelines are located before you start excavating is the first step to ensure safety on the job.

Safety starts with a call to BC One Call to request underground gas line information. You ensure a safe work site by hand digging to expose the gas line before using mechanical equipment.

Hitting a pipeline not only threatens the safety of the public and your workers, but can also damage the environment and cost you money. So take the necessary precautions, play it safe, and call before you dig.

**BC ONE CALL:**

**1-800-474-6886 Cell: \*6886**

**Fax-in service: 604-451-0344**

## Your responsibilities

Whether you are digging up a major intersection or installing fence posts, BC regulations require you to take three steps before you start digging:

- 1) Call BC One Call and request line locate information

2) Use the information to mark the location of buried gas lines

3) Hand dig to expose the gas line

## Guidelines for locating and hand digging

Before beginning any excavation or boring, you must locate the buried gas line and hand dig to expose the line. The BC Safety Authority has approved these guidelines for locating and hand digging.

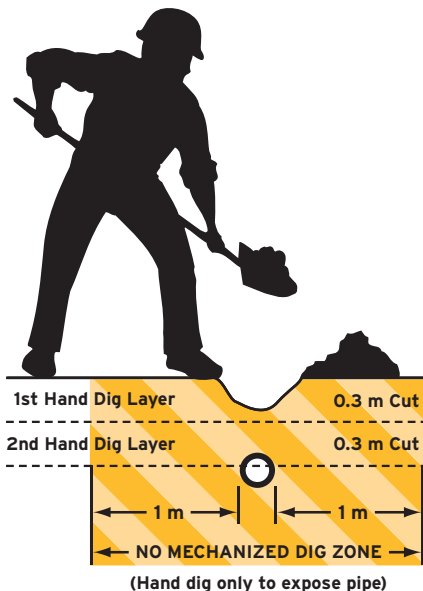
### **You MUST:**

- have gas line information on site
- identify the location of the gas line and mark the line with paint or stakes until digging is underway
- hand dig across the boundary limits of the locate area in cuts no more than 0.3 metres deep

### **You MAY:**

- use an electronic pipe locator to confirm approximate location of the gas line
- use mechanical equipment ONLY to remove surface cover OR clear away loosened material down to the limits of the hand dig area before resuming hand digging (See FIG. 1)
- use hydro-vac excavation equipment within the boundary limit

FIG. 1 - Hand digging for a gas line



Do not use mechanical equipment to deepen the excavation past the hand dig area within the boundary limits.

When locating and exposing buried gas lines, the “no mechanized dig zone” refers to the area equal to the diameter of the gas pipe plus one metre on either side of the gas line’s indicated location.

Hand dig within “the zone” to expose the pipe, using manual equipment and tools. Mechanized equipment should not be used for any purpose other than to break the surface.

Once the pipe has been hand exposed at a sufficient number of locations to determine exact position and depths, mechanical equipment may be used within “the zone.”

## Safety regulations

WorkSafe BC and BC Safety Authority regulations require you to obtain buried gas line location information and hand dig to expose the lines. The following are extracts from the regulations. For more information, visit:

### **WorkSafe BC**

#### **Occupational Health & Safety Regulations**

[www2.worksafebc.com/Publications/OHSRegulation/Part20.asp](http://www2.worksafebc.com/Publications/OHSRegulation/Part20.asp)

#### *Section 20.79 (1)*

“Before excavating or drilling with powered tools and equipment, the location of all underground utility services in the area must be accurately determined, and any danger to workers from the services must be controlled.”

## **Safety Standards Act – Gas Safety Regulation**

*Sections 39(2) and 39(7)*

[www.qp.gov.bc.ca/statreg/reg/S/103\\_2004.htm](http://www.qp.gov.bc.ca/statreg/reg/S/103_2004.htm)

*Section 39(2)*

“A person who intends to excavate must, at least three business days before the person intends to excavate, request from the gas company serving that area, or its agent, information on the location of all underground gas installations in the vicinity of the proposed excavation.”

*Section 39(7)*

“The indicated location of gas installations must be confirmed by the excavator by means of hand digging and the excavator must expose the gas installations at a sufficient number of locations to determine their exact positions and depths before using mechanized excavation equipment for any purpose other than breaking the surface cover.”

## **Pipeline Act**

*Section 9(b)*

[www.qp.gov.bc.ca/statreg/reg/P/pipeline/360\\_98.htm](http://www.qp.gov.bc.ca/statreg/reg/P/pipeline/360_98.htm)

“No work will at any time be done in such a manner as to unduly obstruct, delay or interfere with the operation of the pipeline....”

## Line location assistance

You are responsible for contacting BC ONE CALL and requesting line location information. However, Terasen Gas will provide onsite locates and temporary surface marking or staking when:

- Detailed records are not available or do not meet our standard of quality
- The information on the plans or listing of facility locations is unclear or the gas installation is not where Terasen Gas records indicate
- There is an emergency repair of another utility in progress (e.g. damaged water main or sewer)
- The excavator has been unsuccessful in hand-locating our main or service
- The planned excavation is within 10m of an intermediate pressure (IP) main or service
- The planned excavation is within 30m of the edge of a transmission pressure (TP) pipeline or right of way. See section on obtaining a Terasen Gas permit below.

All requests for location information must be submitted through BC One Call at 1-800-474-6886 or faxed to 604-451-0344 a minimum of three business days prior to the scheduled start of an excavation.

If your project is delayed and your excavation work has not started within 10 working days of receiving gas line information from Terasen Gas, you must verify the location information through BC One Call before beginning work.

## Obtaining a Terasen Gas permit

You will need a permit from Terasen Gas for any activity or work when:

- crossing under or over an intermediate pressure (IP) or transmission pressure (TP) pipeline (gas line operating in excess of 100 psi or 689 kPa) or a transmission right of way
- working within two metres of an IP or TP pipeline running parallel within a public or private right of way (road allowance)
- working within a Terasen Gas statutory right of way

For permit information, call the number for your area:

*Lower Mainland or Interior* call 1-877-599-0996, 604-576-7021 or fax us at 1-877-212-1312. You can also send us an email at [rightofway@terasengas.com](mailto:rightofway@terasengas.com) or visit [www.terasengas.com](http://www.terasengas.com).

*Vancouver Island, Texada Island, the Sunshine Coast or Whistler*, call 250-380-5797 or 250-751-8341.

## Emergency repairs

If you are conducting an emergency repair to another utility – for example, a damaged water main or sewer line – and require gas line location information from Terasen Gas, contact BC ONE CALL at 1-800-474-6886 and Terasen Gas will be notified immediately.

### Remember:

**Contractors are responsible for notifying Terasen Gas and WorkSafe BC of damage to gas lines. Any person damaging Terasen Gas underground utilities is responsible for all associated costs.**

*Terasen Gas - an indirect wholly owned subsidiary of Fortis Inc. - is the common name of Terasen Gas Inc., Terasen Gas (Vancouver Island) Inc., and Terasen Gas (Whistler) Inc. Terasen Gas uses the Terasen Gas name and logo under license from Terasen Inc.*

# Emergency checklist

## **If gas is escaping from a ruptured line:**

- shut off machinery and all sources of ignition
- evacuate – move people upwind if possible – keep cars and bystanders away from area
- call Terasen Gas immediately at 1-800-663-9911
- don't attempt repairs or operate underground gas valves
- if there's a fire or danger of fire call 911 or the fire department
- if the break or leak is underground, warn people in nearby buildings where gas might enter through drains, etc.
- if gas is entering into buildings, evacuate them as well as neighbouring buildings

## **If a pipe has been struck, jarred or pulled, or the tracer-wire, protective wrapping or the pipe surface has been damaged:**

- stop all work and call Terasen Gas
- check for the smell or sound of escaping gas in the area
- DO NOT backfill. Terasen Gas must physically check the integrity of the piping system and repair any damage

Get comfortable.

