

# Pipelines in British Columbia

## Why the Need for Pipelines?

Pipelines transport natural gas and oil from producing wells to facilities and then to processing plants and refineries before products are marketed to consumers.

Pipelines transport a variety of refined and unrefined products including natural gas,

sour natural gas, liquid hydrocarbons, water and other miscellaneous gases and liquids.

Companies seeking to operate and maintain a pipeline in B.C. must apply for a permit, negotiate a pipeline right-of-way, engage with [First Nations](#), [land owners and communities](#).

The [BC Energy Regulator \(BCER\)](#) reviews pipeline applications for projects on provincial and private lands as defined in the [Energy Resource Activities Act \(ERAA\)](#), and regulates and protects these pipelines under ERAA, the [Pipeline Regulation](#) and the [Pipeline Crossings Regulation](#).

We regulate more than 50,000 km of pipelines. The majority carry natural gas (78%).

## Categories of Pipelines

**Active:** Piping actively used for the transport of fluids related to oil and gas operations, and piping that has been suspended from service for less than 18 months, but not formally deactivated or isolated.

**Deactivated:** Piping removed from service but is maintained for later return to service.

**Abandoned:** Piping removed from service has been cleaned, cut off at pipeline depth, capped, and all surface equipment removed.

## Pipeline Product Types

**Sour natural gas:** Natural gas with a hydrogen sulphide (H<sub>2</sub>S) partial pressure greater than 0.3 kilopascals.

**Natural gas:** Natural gas, sweet gas and fuel gas.

**Crude oil:** Crude oil, sour crude and low-vapour pressure hydrocarbons.

**Water:** Fresh, produced, salt and sour water.

**High vapour pressure:** Propane, butane and pentane.

**Other:** Miscellaneous liquids and gases, oil effluent, air and multi-phase lines.

## Incident Response & Enforcement Actions

We respond to all incidents to confirm the incident level and assess the permit holder's response. We then determine the remedial actions that must be taken and whether a pipeline can continue to operate safely. The following enforcement actions may be applied:

**Orders:** issued if a permit holder fails to comply with ERAA, associated regulations, permits or authorizations, a previous order, or to deal with issues of public safety or protection of the environment.

**Tickets:** issued under the authority of provincial acts, including the [Water Sustainability Act \(WSA\)](#).

**Administrative Penalties:** issued under the authority of provincial acts, including the WSA.

**Charges:** recommended to Crown counsel for prosecution and possible court conviction.

The BCER  
responds to urgent  
safety complaints  
within 30 minutes,  
24/7, year-round.

## Can You Recognize a Leak?

Natural gas smells like rotten eggs or sulphur for a good reason. Natural gas is odourless at the wellhead, but trace amounts of mercaptan is added downstream (for home or commercial use) to create a distinctive smell.

The leak may be detected by sight. Vapour and/or ground frosting, bubbles in wet or flooded areas, distinct patches of dead vegetation, dust blowing from a hole in the ground, and flames may be visible if the leak has ignited.

A natural gas leak may sound like a hissing or roaring noise along the right-of-way of a pipeline.



### Suspect a leak inside?

- Evacuate the premises leaving the door open.
- Walk to a safe distance and call 911.
- Do not use electrical outlets or items plugged in.
- Do not start any motors or vehicles.
- Do not use lighters or matches.



### Suspect a leak outside?

- Keep clear of the area.
- Walk to a safe distance and call 911.
- Do not start any motors or vehicles.
- Do not use lighters or matches.



#### Call Before You Dig

BC 1 Call:

[1-800-474-6886](tel:1-800-474-6886) or  
[cellular \\*6886](tel:1-800-474-6886)



#### Learn More about pipeline damage prevention

[For Land Owners](#)  
[For Contractors](#)

## What Protection Programs are in Place?

The secure operation of pipelines is essential for public safety and environmental protection. We have jurisdiction over most pipelines over 700 kPa within provincial boundaries. Many of the regulations and standards are designed specifically to safeguard operations.

- ✓ All permit holders must have a fully developed and implemented [Pipeline Integrity Management Program \(IMP\)](#) that adheres to the [Canadian Standards Association](#) (CSA Z662, National standard for Oil and Gas Pipeline Systems). IMPs cover the planning, designing, constructing, operating, maintaining and abandonment of pipeline infrastructure in B.C.
- ✓ Permit holders must prepare and maintain an emergency response program and a response contingency plan. Each plan must be tested annually in an exercise to confirm that companies have the training, competency and capacity to respond to incidents. Companies also have an obligation to report any incidents, including any accidental release in accordance with the Spill Reporting Regulation.
- ✓ Permit holders must continually report to the BCER before, during and upon completion of pipeline construction and perform regular tests on pipelines during all phases of operation. For instance, before a pipeline is permitted to be activated for service it must successfully pass a pressure test. A pressure test will often use water and must occur at a higher pressure than what is permitted for active service to ensure the pipeline is safe for regular operation. These pressure tests are submitted to BCER.
- ✓ The BCER has a highly-trained compliance and enforcement team to ensure permit holders are following all laws, regulations and permit conditions. An average of 4,500 inspections are completed every year. [Enforcement Actions](#) are updated weekly on the BCER's website to ensure the timely release of information. Previous [Enforcement Reports](#) and annual [Pipeline Reports](#) that include a summary of incidents, can be found on the website.



The BCER [Incident Map](#) provides timely, factual information on pipeline incidents. By clicking on identified incident points on the map, specific details are displayed, such as incident type, company name, incident location and date.