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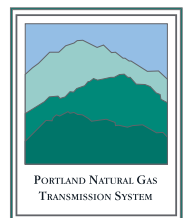
Natural Gas Pipelines Excavation Information

Please retain this booklet for your information

Emergency Phone Number: 1.800.830.9865



Know what's below.
Call 811 before you dig.



PORTLAND NATURAL GAS
TRANSMISSION SYSTEM

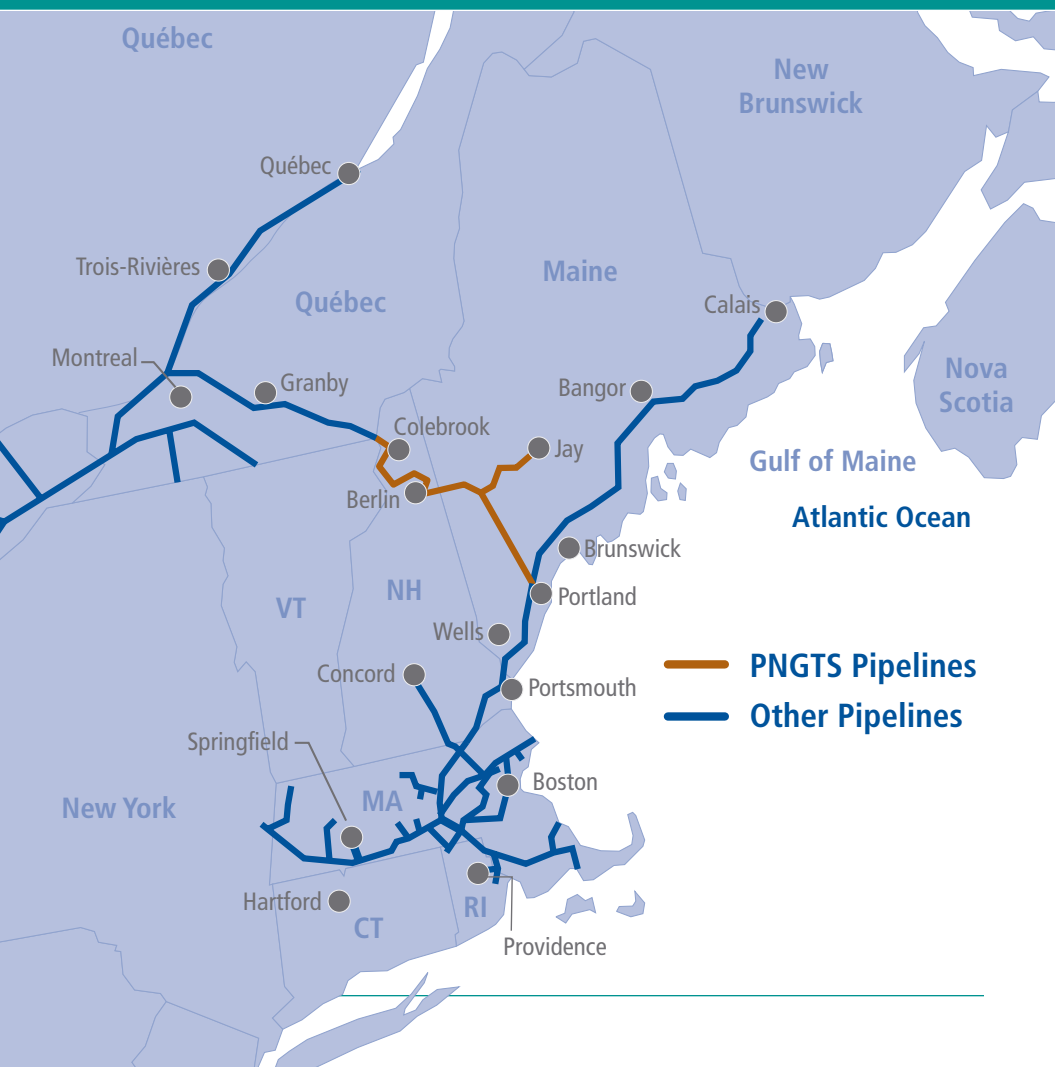
Why are you receiving this brochure?

This brochure contains important safety information about natural gas pipelines, and you participate in excavation related activities near the Portland Natural Gas Transmission System (PNGTS), operated by TransCanada. To help you understand the role you play in contributing to pipeline safety, we ask that you review the information provided. If you would like more information or have questions, please contact us at **public_awareness@transcanada.com** or call **1.855.458.6715**.

Please retain this booklet for your information.

En caso de emergencia relacionada con un oleoducto, llame al **1.800.830.9865**. Si desea recibir información de seguridad sobre los oleoductos en español, envíe un email a **public_awareness@transcanada.com** o llame al **1.855.458.6715**.

North American Assets



About Us

TransCanada is a leading North American energy infrastructure company with an industry leading safety record. For more than 60 years, we have been building, operating, and maintaining pipeline systems in a responsible and reliable way to meet the energy needs of North America.

What is Natural Gas?

- Natural gas is an energy source composed mostly of methane.
- Natural gas is said to be odorless, but some people detect a slight hydrocarbon smell. If the gas has been odorized, it could smell “skunk-like” or similar to rotten eggs.
- Natural gas is highly flammable and explosive.

Our Natural Gas Facilities

TransCanada owns and operates pipeline and other associated natural gas facilities including meter stations and compressor stations.

Pipelines

Pipelines are the safest and most efficient method to transport energy to market. Our pipelines are built using industry best practices, which include using the highest quality materials during the construction and implementing routine quality inspections and 24 hour monitoring programs throughout the life of the pipeline.

Meter Stations

Meter stations are facilities necessary within a pipeline system that measure the volume of natural gas transported by a pipeline. Natural gas is measured at all locations where it either enters the pipeline (receipt station) or leaves the pipeline (sales station).

Compressor Stations

As natural gas flows along a pipeline, it slows due to friction between it and the pipeline. This results in a loss of pressure along the pipeline. In order to make the gas flow continuously at the desired flow rate, it is re-pressurized at suitable locations along the pipeline. This is done by mechanically compressing the gas at sites connected to the pipeline known as compressor stations. The location and quantity of compressor stations required in a pipeline system is dependent on a number of factors, including the operating pressure of the pipeline, the diameter of the pipe used, elevation changes along the pipeline route and the desired volume of gas to be delivered.

Maintaining Pipeline Safety

- TransCanada works to meet all applicable federal and state safety standards.
- The pipeline facilities are constantly monitored to ensure safety and integrity of the entire system 24/7.
- The pipelines are equipped with multiple valves that can be closed manually or automatically, often within minutes, reducing the potential amount of product released.
- TransCanada patrols pipeline rights-of-way to identify any unsafe or unauthorized activity within the rights-of-way which could damage the pipeline.
- TransCanada’s employees are trained to meet all mandated federal requirements for Pipeline Operator Qualifications in the U.S.
- In accordance with federal regulations, some segments along TransCanada’s pipelines have been designated as High Consequence Areas (HCAs). To maintain the integrity of these HCAs, TransCanada has developed supplemental hazard assessment and prevention programs called Integrity Management Programs (IMPs). These programs may include internal inspections, external evaluations and pressure tests. For information regarding these measures, contact TransCanada and ask to speak with the US IMP Program Manager.

Call Before You Dig – It’s Free

Important Contact Information

One Call Center 811
Online locate requests
..... www.call811.com/811-your-state
Emergencies 1.800.830.9865
General Inquiries 1.855.458.6715
Landowner Inquiries 1.877.287.1782

Crossing or Encroachment Agreements

Email us_crossings@transcanada.com
Phone 1.877.287.1782

TransCanada is regulated by US Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) in the United States.

National Pipeline Mapping System (N.P.M.S.).

You can access further information regarding transmission pipelines located in your community transporting hazardous liquids or natural gas through the National Pipeline Mapping System at www.npms.phmsa.dot.gov.





Your Safety

Unauthorized digging and crossing by contractors, farmers, landscapers and homeowners is a leading cause of pipeline incidents.

Excavation

Before conducting any excavation, either by hand or with machinery, contact your State One-Call center by calling '811' – America's national toll-free number for requesting underground utility location. Or visit your State One-Call website to enter locate requests online.

The One-Call Center will notify owners of buried facilities in your area, who will send representatives to mark these facilities with flags, paint or other marks, helping you avoid damaging them.

In all states, a notification to the One-Call center is required by law.

The service is free and could prevent accidents, fines, injuries or deaths.

Crossing and Encroachment

A crossing or encroachment is a temporary or permanent structure across, on, along or under a facility or pipeline right-of-way. A crossing can also mean equipment or machinery crossing over the pipeline right-of-way or facility site.

Like excavations, crossings and encroachments can pose a threat to the pipeline.

If you think your activity requires a Crossing agreement with TransCanada, please contact us to better serve you and speed up your request, please provide the following information:

- Proposed activity – what are you planning to do?
- Location of proposed work (GPS coordinates are preferred)
- Make(s) and model(s) of any of the equipment that will cross/encroach the
- pipeline facilities
- Proposed activity date
- Axle load (weight)
- Your name and phone number
- Email address

Once you have received approval, the party completing the work must call '811' to request a locate of the pipelines at least three business days before beginning work.



Pipeline Location

- Most pipelines are buried underground in an area of cleared land often referred to as the “right-of-way”. The area on either side of the pipeline within the right-of-way must be clear of trees, shrubs, buildings, fences, structures or any other encroachments.
- Markers are used to indicate a pipeline’s **approximate** location as well as the name of the pipeline and the operator’s information.
- Only a TransCanada representative can determine the location and depth of the pipeline. Pipelines may not follow a straight course between marker signs.

Dig with **C.A.R.E.**

Call 811 before you dig

Allow required time for marking

Respect the marks

Lines are marked by flags, paint or other markers (normally yellow for pipelines).

Excavate carefully

When digging near underground utilities, be sure to hand dig to determine their exact location.





Pipeline Marker



Pipeline Marker



Casing Vent



Aerial Marker

Pipeline Markers

- Pipeline marker signs contain important information, including the owner of the pipeline, the product shipped in the pipeline and emergency contact numbers.
- TransCanada uses a variety of markers and signs along rights-of-way to alert people to the general location of its pipelines. Markers are typically placed where the pipeline intersects streets, railroads, rivers, fence lines and in heavily congested areas.
- **BE AWARE:** Pipeline markers will not designate the exact location, depth or number of pipelines in the area. Call '811' and TransCanada and other utility companies will send a representative to the proposed excavation site to mark buried utilities at no cost to you.
- It is a federal offence to willfully and knowingly deface, damage, remove or destroy any pipeline sign. If these signs are missing, damaged or otherwise unreadable, please contact TransCanada to replace them.



Pipeline Incidents

A pipeline incident could involve an uncontrolled or unplanned release of natural gas from the pipeline system. TransCanada's state-of-the-art leak detection systems, elevated safety features and specially trained staff make us confident leaks would be quickly identified and addressed.

In the unlikely event an incident should occur, TransCanada would immediately respond by shutting down the pipeline and dispatching emergency personnel to the location of the incident. Remote controlled valves spaced at intervals along all TransCanada pipelines allow incidents to be quickly and effectively isolated.

Trained crews dispatched to the site work to further isolate the area and coordinate a response with local emergency services. TransCanada will not restart the pipeline until the issue has been identified and it is safe to do so.

TransCanada's policies and practices for emergency response planning go above and beyond the standard regulatory requirements for emergency response.



What to do if you strike a pipeline

A “strike” is any unauthorized contact with a pipeline and can include mechanical equipment like a backhoe or hand tools, such as a shovel. Whether or not the pipe appears to be damaged, if you strike a pipeline, it is important that you follow these steps:

1. Stop all excavation and construction. Shut off all machinery and move away from the area on foot – warn others to do the same.
2. Do not attempt to repair the pipe or operate any valves.
3. Call ‘911’ as soon as you are in a safe location. Describe the situation and inform the operator of any injuries, leaking product or fire.
4. Call TransCanada’s emergency number at **1.800.830.9865** and explain the incident. This number is available on all pipeline marker signs.
5. Do not continue your project until authorized by a TransCanada representative.

The safety of the surrounding population dramatically decreases when a pipeline is damaged. Contact TransCanada as soon as possible so we can make any necessary repairs.

Being a Partner in Pipeline Safety

Although a pipeline leak is rare, it is important to know how to recognize the signs. Use your senses of smelling, seeing and hearing to detect a potential pipeline leak

What you may smell

- Natural gas is said to be odorless, but some people detect a slight hydrocarbon smell. If the gas is odorized, it may smell “skunk-like” or similar to rotten eggs.



What you may see

- Dead or dying vegetation on or near a pipeline in a normally green area
- Water bubbling or blowing into the air at a pond, creek or river
- Dirt being blown or appearing thrown into the air
- Stained or melted snow/ice over pipeline areas.



What you may hear

- A hissing or roaring sound



If You Suspect a Leak

If you witness any of the typical signs listed, or any other unusual sights, sounds or smells near a pipeline location, it is important that you follow these steps:

- 1. Leave** the area immediately on foot – do not use motor vehicles or any equipment that could be a potential ignition source.
 - 2. Move** to a safe location, call ‘911’.
 - 3. Call** TransCanada’s emergency number: **1.800.830.9865**. This number can be found on all pipeline marker signs.
 - 4. Warn** others to stay away.
-

International Color Code for Marking Underground Utilities



proposed excavation



temporary survey markings



electrical



gas, oil, steam (pipelines)



phone, TV, internet



water



sewers and drains

Utilities must be hand exposed and visible before digging

TransCanada's Emergency Number:
1.800.830.9865



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