



PIPELINE EMERGENCY RESPONSE INFORMATION



For emergency responders and public officials - Crude oil

Please keep this brochure for future reference or in case of an emergency.
To request additional copies, please contact us. See inside cover for contact details.



23CAEOPOLIQ

Why are you receiving this brochure?

This brochure has been designed to provide basic pipeline safety information including:

- Recognizing the signs of a pipeline leak
- How to respond to a pipeline leak or incident
- How to contact TC Energy in an emergency or for more information
- How to determine the approximate location of pipelines
- Information about pipelines and crude oil
- How TC Energy works to ensure the safety of pipelines

To understand the role you play in contributing to pipeline safety, please review this brochure. To request more information or additional copies of this brochure, please contact us at public_awareness@tcenergy.com or call 1-855-458-6715.

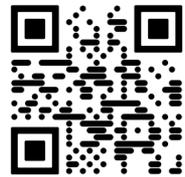
In the case of a pipeline emergency or to report suspicious activity along the right-of-way, please call 911 and local law enforcement, and then call TC Energy's emergency number at 1-888-982-7222. The emergency telephone number can also be found on the nearest pipeline marker, or on the back of this brochure.

TC Energy respects your privacy. To find out more about TC Energy's commitment to privacy and protecting your personal information, please see www.tcenergy.com/privacy.

The majority of TC Energy's pipelines are regulated by the Canada Energy Regulator (CER) in Canada, with some pipelines regulated provincially. For more information about federally regulated pipelines, visit www.cer-rec.gc.ca, and for our provincially regulated pipelines visit www.aer.ca in Alberta, and www.bcogc.ca in British Columbia.

You can view an interactive map of federally regulated pipelines by scanning the QR code below with your smart phone.

This map is not comprehensive of all underground utilities and is not a substitute for submitting a One-Call to properly locate pipelines.



TC Energy's response to a pipeline incident

A pipeline incident could involve an uncontrolled or unplanned release of natural gas or oil from the pipeline system. TC Energy's state-of-the-art leak detection systems, elevated safety features and specially trained staff ensure that leaks will be quickly identified and addressed.

In the unlikely event an incident should occur, TC Energy's top priorities are to ensure the safety of the public and emergency responders, and to minimize effects on the environment and surrounding properties. TC Energy will immediately respond by:

- Shutting down the affected pipeline if necessary
- Isolating the impacted section of the pipeline through either automatic valve shutoff or manual valve operation
- Dispatching emergency personnel to the location of the incident

Trained crews that are dispatched to the site will coordinate a response with local emergency services. TC Energy will not restart the pipeline until the issue has been addressed and it is safe to do so, with the approval of industry regulators. TC Energy's policies and practices for emergency response planning go above and beyond the standard regulatory requirements for emergency response.

Role of emergency responders and public officials

We view the communities we operate in as emergency response partners. We will work collaboratively with emergency responders, extending invitations to participate in exercises and training.

TC Energy uses the Incident Command System structure to manage any emergency response. In the event of an emergency, we hope to work with emergency response officials in a Unified Command approach to ensure everyone is familiar with local operations and related safety issues. TC Energy does not expect volunteer or dedicated emergency services to have the equipment or specific experience needed to respond to a leak or rupture along our pipeline system. As established leaders in their community, local emergency responders are expected to protect the public by conducting evacuations and emergency rescue operations if necessary.

TC Energy's operations extend across North America with established offices in various communities. Each region is fully staffed with qualified employees trained in pipeline safety and emergency response to ensure the safe and efficient operation of the facilities in the area.

Actions for emergency services

Do

- Protect yourselves and the public.
- Contain and control secondary fires if safe to do so.
- Provide traffic and crowd control.
- Secure the site and establish a safe zone to ensure public safety.
- Evacuate unnecessary personnel.
- Monitor for LEL, H₂S and benzene if possible.
- Eliminate all ignition sources if safe to do so.
- Provide first aid as needed.
- Allow TC Energy employees clear and quick access to the emergency site.

Do not

- Attempt to operate any valves.
- Go near the incident area until a hazard assessment has been conducted by TC Energy.
- Attempt to contain the spill or leaked product.

If someone suspects or reports a leak

If there is evidence of any of the typical signs of a leak listed in this brochure, or any other unusual sights, sounds or smells near a pipeline location, it is important that these steps are followed:

Leave the area on foot immediately.

Move to a safe location and call '911'.

Call TC Energy's emergency number which is found on all pipeline markers, facility gates and at the back of this brochure.

Stay upwind to avoid vapours or contact with leaking product.

Warn others to stay away.





Recognizing a crude oil pipeline leak

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



You might see:

- Amber/black liquid which can display as a black patch or pool on the ground.
- A rainbow sheen or black liquid on top of water.
- Dead or dying vegetation on/near the right-of-way in an area that is usually green.
- Stained or melted snow/ice over the pipeline area.



You might smell:

- A slight smell similar to “rotten egg”, gasoline, tar or “skunk-like” odour.



You might hear:

- A roaring, hissing or whistling noise.

Possible hazards of a crude oil leak or rupture

- Crude oil may be flammable and explosive under certain conditions.
- Dizziness or suffocation can occur if the vapours displace oxygen in an enclosed area or occur in conditions that allow high concentration.

Emergency response plans and emergency management manual

Emergency Response Plans include procedures to ensure required notifications and response actions are carried out as efficiently and safely as possible. Visit www.tcenergy.com/emergency-preparedness under “Request a Plan” to access the Emergency Response Plan for your area. You can also find the Emergency Management Corporate Program Manual in the same location.

Education and training

When possible, TC Energy offers in-person sessions to share information about our collaborative emergency response plans to emergency responders and public officials. To request one of these sessions, contact public_awareness@tcenergy.com. Access online training for pipeline emergency response through the National Association of State Fire Marshals’ emergency responders portal. Visit www.nasfm-training.org/pipeline for more information.

Community investment

Our Build Strong program supports local first responder organizations by helping to provide or fund the tools and resources communities need to go home safely, every day.

To learn more about Emergency Response at TC Energy, scan this QR code with your smartphone.



Prevent an incident, before it happens



Click or call before you dig—it's free

The best safety practices stop accidents before they happen. Just like you won't drill into a wall without knowing where the studs are, it makes sense to find out where the underground utilities are located. Unfortunately, digging without a locate is the leading cause of pipeline incidents.

Before conducting any excavation, either by hand or with machinery, contact your local One-Call Center at least 3 business days (5 in Ontario) in advance by visiting www.clickbeforeyoudig.com - Canada's source for provincial One-Call rules, regulations and contact information.

The One-Call Center will notify the facility owners in your area, who will send representatives to mark these facilities with flags, paint or other marks, helping you to avoid damaging them. Even with a locate, any excavation on a TC Energy right-of-way requires a TC Energy representative be present.

A notification to the One-Call Center is required by law in some areas, and not making a One-Call could result in fines or penalties. The service is free and could prevent accidents, injuries or deaths.

Learn more about the One-Call requirements in your province by visiting www.clickbeforeyoudig.com.

Know what utility markings mean

When you request a locate, coloured flags and/or paint are used to mark the location and type of underground utility.

Proposed excavation

Temporary survey markings

Electric power lines, cables, conduit and lighting cables

Gas, oil, steam, petroleum or gaseous materials

Communication, alarm or signal lines, cables or conduit

Potable water

Reclaimed water, irrigation and slurry lines

Sewers and drain lines

Recognizing a pipeline in your area

The general location of pipelines can be determined by two characteristics: a pipeline right-of-way (ROW) and pipeline markers.

Right-of-way

- A ROW can usually be recognized as a cleared strip of land in a linear or fairly straight line, cleared of structures and trees.
- The ROW contains the pipeline and the prescribed area that extends 30 metres on either side of the pipeline where certain activities require written consent from the pipeline operator to ensure the continued safety and integrity of the pipeline.
- The ROW must be kept clear of fences, buildings, trees or any other type of structure. The impact of a fence post, weight of a shed or the roots of a tree can cause either immediate or long-term damage to the pipeline.
- Structures or development could also impede access to the area for any required maintenance or emergency situations, resulting in safety risks and possible costly impacts to structures on the ROW.
- **The existence of the prescribed area does not necessarily mean development of the land cannot occur within the prescribed area, so contact TC Energy early to discuss your plans.**

Pipeline markers

- Found within line-of-sight on a ROW and at locations where the pipeline crosses streets, highways, waterways and railways.
- Markers only show the approximate location of the pipeline, and the depth of the line may vary. **You CANNOT use pipeline markers as a determination of where or where not to dig.**
- Pipeline markers display the pipeline operator, emergency number and the product transported in the pipeline.
- It is against the law to willfully deface, damage, remove or destroy any pipeline sign.
- Only a TC Energy representative can determine the location and depth of the pipeline. Pipelines may not follow a straight course between marker signs.



Warning sign



Line marker



Vent marker



Aerial marker

What does TC Energy do to ensure pipeline safety?

TC Energy conducts a rigorous pipeline maintenance program to ensure the integrity and safety of our systems. This includes but is not limited to:

- 24/7 monitoring of our facilities
- In-line inspections of pipelines that can identify the smallest of issues or defects for repair
- Regular patrols of the right-of-way
- Multiple shut-down valves to isolate and limit potential releases
- Cathodic protection to prevent corrosion
- Hydrostatic testing
- Investigative digs
- Ground surveys

In addition to this, TC Energy invests millions every year in research and development to improve and enhance the safety of our pipelines, including smart drone patrolling, fiber optic monitoring, greenhouse gas reduction and environmental sustainability. TC Energy's employees are trained to meet or exceed all regulated training in Canada.

In the interests of public safety, some segments along TC Energy's pipelines have been designated as High Consequence Areas (HCAs) where extra precautions are taken, known as Integrity Management Programs (IMPs). For information regarding these measures, contact TC Energy at public_awareness@tcenergy.com.



Pipeline Inspection Gauges, or “PIGs” travel through the pipeline to collect information that can then be analyzed to spot imperfections, corrosion, dents or other signs that maintenance may be needed.

Consequences of unsafe digging and other unauthorized activity

Unauthorized excavations or other unsafe activities can have potential consequences for those individuals conducting the work, and negatively impact the greater community. Even crossing a pipeline right-of-way can require written consent from TC Energy.



Risk of serious injuries and death.



Interrupted services such as electricity, gas and water.



Fines and repair costs to fix the underground utility line(s).

When should Emergency Responders and Public Officials contact the pipeline operator:

- In the event of a pipeline emergency.
- If an emergency situation requires you to access or cross a pipeline right-of-way through means other than a road, driveway or similar approved crossing.
- If you witness unauthorized activity on a pipeline right-of-way.

Examples include any of the following on a right-of-way:

- digging or excavating
- operating heavy equipment
- driving vehicles or equipment
- an accident or overturned vehicle in the ditch near a pipeline marker
- dirt piles or construction over top
- fires or flooding

Any of these activities requires written consent from the pipeline operator. You can find contact information and written consent application information on the back of this brochure.

In case of emergencies, use the One-Call contact numbers on the back of this brochure for emergency utility location requests.

Purpose of pipelines and pipeline facilities

Pipelines are the safest and most efficient method to transport the energy that we need and use every day. Our pipelines and pipeline facilities are built using industry best practices, which include using the highest quality materials during construction and implementing a rigorous pipeline maintenance program. This includes the facilities required to safely operate the pipeline, like pump stations and tank terminals.

Pump stations are necessary to maintain controlled and appropriate pressure and flow along the length of the pipeline to ensure continuous and safe operation.

Tank terminal is an industry term for a storage facility. They consist of a number of interconnected storage tanks where oil is measured and collected until it is ready to be transported through the pipeline.

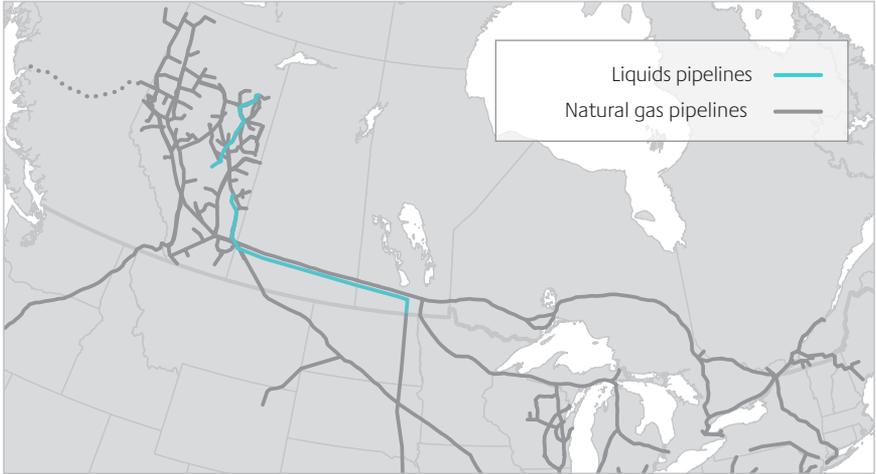
Important information about crude oil

Crude oil is a liquid mixture of naturally occurring petroleum hydrocarbons. Crude oil is amber to black in colour depending on the source. It can possess a rotten egg, gasoline, tar or skunk-like odour.

Crude oil vapours are volatile, and can be flammable and explosive. Vapours are heavier than air and can travel along the ground in low-lying areas. Oil vapours can be ignited by many sources including cellular phones, radios and vehicles. Crude oil can contain varying levels of hydrogen sulfide (H_2S), an extremely poisonous gas. H_2S vapours can cause eye, skin and respiratory tract irritation, and can be lethal.

Since the oil batched in an oil pipeline changes regularly, the specific Safety Data Sheet for the product in question will be provided in the event of an emergency.





Important contact information

Emergency 1-888-982-7222

One-Call Centres and Emergency locate or crossing requests

British Columbia 1-800-474-6886
 Alberta 1-800-242-3447
 Saskatchewan 1-866-828-4888
 Manitoba 1-800-940-3447
 Ontario 1-800-400-2255
 Quebec 1-800-663-9228
 Access One-Call Centres Online www.clickbeforeyoudig.com

General inquiries

Phone 1-855-458-6715
 Email public_awareness@tcenergy.com

Applying for written consent

Online writtenconsent.tcenergy.com
 Phone 1-877-872-5177

Crossings inquiries

Email crossings@tcenergy.com
 Quebec Email quebec_crossings@tcenergy.com