

Emergency Response Guidelines

For Local Governments
and Fire Departments



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CONTROL SHEET

Revision Number	Date of Revision	Change(s)	Approval
1	October 2020	Minor wording updates to Introduction, Section 1: Preparedness, Section 3: Recovery, Appendix B: Glossary of Selected Trans Mountain and ICS Terms, and Appendix C: Acronyms. Addition of content to Section 2: Emergency Response.	K. McLernon
2	December 2022	Updates throughout Addition of Section 3.5.2 Joint Information Centre and Section 3.7 Evacuation Plans	K. Malinoski

INTRODUCTION

Trans Mountain Corporation (Trans Mountain) is committed to operating its pipelines in a safe, efficient, and environmentally sound manner, adhering to all federal and provincial regulations. Part of Trans Mountain's public awareness initiative is to promote the presence of pipelines in the community and provide safety and damage prevention information to those who live or work near Trans Mountain's pipeline right-of-way and facilities. With increasing federal and provincial regulations focusing on pipeline safety and incident response, combined with increased industry investment in these same areas, the ability to prevent and/or respond to pipeline incidents today has markedly improved.

In the event of a release from a Trans Mountain pipeline, the company, as the responsible party, will conduct full and complete response activities including remediation and recovery.

Trans Mountain has developed an Emergency Management Program that is based on a combination of regulatory compliance, operational need, industry best practices, and lessons learned through regular exercises and actual incidents. As part of Trans Mountain's commitment to work with local governments and First Responders to prepare for, respond to, and recover from potential incidents, Trans Mountain's Emergency Management Department has created this guide on pipeline safety and emergency response. The measures described in this supplement will contribute to reducing the potential human impact of an accidental release. This guide may be used to supplement local government Emergency Response Plans (ERPs).

ABOUT THIS GUIDELINE

This guideline has been developed by Trans Mountain's Emergency Management Department for specific use by local governments and First Responders. The information provided in this supplement does not replace that found within local governments ERPs but can enhance community resilience and support Trans Mountain's efforts to create a culture of pipeline safety and awareness. The guide is divided into three sections and supported by four (4) Appendices:

Section 1, "Preparedness", focuses on pipeline awareness and protective actions that should be followed in the event of a pipeline release. It provides general product characteristics and describes how to properly identify a pipeline release and steps that should be followed by community members if they witness or become exposed to a release.

Section 2, "Emergency Response", explains the framework of Trans Mountain's response to a pipeline incident. It outlines the procedures followed for internal and external notifications, provides a description of the Incident Command System (ICS) including Unified Command, and explains the various roles that local governments and First Responders could undertake during response and recovery operations to a Trans Mountain pipeline incident.

Section 3, "Recovery", details the framework of Trans Mountain's recovery from an incident. This section covers the process for terminating and/or downgrading an emergency, demobilization of resources, and incident debriefing.

Appendix A provides a Product Summary Safety Data Sheet (SDS) representing the range of crude oil products that may be stored or shipped in the Trans Mountain Pipelines. The SDS provides physical product descriptions, chemical properties, and toxicological information.

Appendix B is a glossary of select Trans Mountain and ICS terms relevant to emergency response.

Appendix C is a list of select Trans Mountain and ICS acronyms relevant to emergency response.

Appendix D provides a template for a media “holding statement” which may be used by local governments in their initial response to a Trans Mountain pipeline incident.

REGULATORY COMPLIANCE

Canada Energy Regulator

Trans Mountain’s Pipeline falls under the jurisdiction of the Canada Energy Board (CER) and its applicable acts and regulations. The CER acts as the primary regulator for all interprovincial and international pipelines. The Board is responsible for monitoring how companies comply with regulations and commitments concerning the safety of employees, public, and the environment throughout the entire pipeline lifecycle. The CER’s expectation, and Trans Mountain’s, is that the top priority in any emergency is to make sure people are safe and secure, and that the environment and property are protected.

The CER has a comprehensive emergency management program. Any time there is a serious incident on a CER-regulated energy pipeline or facility, CER staff may attend the site to oversee the company’s response. The CER requires that all reasonable actions are taken to protect the public, employees, and the environment. Further, the CER will verify that the regulated company conducts an adequate and appropriate clean-up and remediation of any environmental effects caused by the incident. Both the CER and the Transportation Safety Board can investigate the cause of an incident.

The CER maintains an Emergency Operations Centre in Calgary to coordinate and support its field staff at the incident site and provide situation reports to the Government of Canada’s Emergency Operations Center in Ottawa.

The CER can be reached by calling **1-800-899-1265** or by using their online contact form located at <https://www.cer-rec.gc.ca/cntcts/index-eng.html#contactusform>.

SECTION 1: PREPAREDNESS

1.1 Public Awareness

Pipelines provide a safe and reliable means of transporting Canadian energy products over long distances. However, incidents sometimes do occur, and when they do, Trans Mountain wants to make certain that local governments, and First Responders have the appropriate knowledge and awareness to ensure public safety.

Trans Mountain maintains a Public Awareness Program focused on ensuring members of the public remain well-informed of the pipelines operating within their communities. A critical component of this program aims to ensure that individuals living and working in and around active pipelines have the knowledge to both recognize pipeline releases and respond accordingly. Understanding these two factors helps ensure personal safety as well as that of the community.

In addition, Trans Mountain has developed a Community Awareness Emergency Response (CAER) Program for First Responders. The CAER Program informs First Responders about identifying pipeline locations, types of products transported, product hazards, and emergency situations involving a pipeline release, including the safety procedures to be followed. The CAER Program's goal is to achieve an effective and coordinated response partnership with the First Responders of the communities in which Trans Mountain operates.

1.2 Pipeline Awareness

Local governments can play an important role in mitigating risk to pipelines through public awareness programs. Government and industry statistics show that improper or unauthorized digging near a pipeline is the most common cause of damage. Local government leaders can help protect the public, environment, and pipelines by being aware of activities near the right-of-way and by calling Trans Mountain with any questions or concerns. [This is the law in Alberta and British Columbia.](#)¹

One-Call centre numbers:

- Alberta 1-800-242-3447 or albertaonecall.com
- British Columbia 1-800-474-6886 or bconeall.ca

Landline and cellphone calls made to One-Call centres are tollfree from anywhere in Alberta or BC. In BC, on the TELUS or Rogers mobility system, call *6886 and free airtime will also be provided.

Listed below are six things local governments can do to help protect their communities from potential pipeline emergencies:

¹ The Alberta Occupational Health and Safety Code, the Alberta Electrical Utility Code, and the Alberta Pipeline Regulation require that the locations of all buried utilities be marked before a ground disturbance begins. This applies to anyone planning to disturb the ground.

1. Be aware of any construction in or near the right-of-way. Local officials should alert Trans Mountain if they see or become aware of unauthorized or dangerous activity near a pipeline at **1-888-876-6711**.
2. Require excavators and landscapers working in the community to contact the local One-Call center before digging to request the location of the pipeline, and other buried utilities. Trans Mountain will:
 - Call the excavator back within three business days to discuss the proposed work.
 - Provide a 'Trans Mountain 30 metre Permit' if ground disturbance activity to a depth of 30 cm or greater within 30 metres from the centre of the pipe is to take place and/or a Proximity Permit for appropriate underground installations or crossings within the right-of-way.
 - Schedule an appointment to meet and mark the location of the pipeline and discuss next steps as required.
 - Conduct a safety meeting to explain the ground disturbance regulations and requirements.
 - Provide a Pipeline Protection Inspector to be on-site if any approved work being undertaken is within 7.5 metres of the pipe.
3. Advise excavators, landscapers, or other construction personnel to report if they come in contact with the pipeline or see any pipeline damage, including gouges, dents, scrapes or exposed areas of pipe.
4. If pipeline easements exist within the community, review the details of any agreements, and talk with Trans Mountain before planting, digging, or building near the right-of-way.
5. Inform and educate members of the community about the signs of a potential pipeline leak and the location of pipelines (see Section 1.4).
6. Review pipeline emergency response procedures within the community's Emergency Response Plan including evacuation and shelter-in-place procedures. Liaise with Trans Mountain for discussions when reviewing or updating applicable emergency response procedures.

1.3 Pipeline Markers

Local government, First Responders, and people who live and work near Trans Mountain's pipelines are encouraged to familiarize themselves with the pipeline's right-of-way. The pipeline's right-of-way is the strip of land under which the pipeline is buried and includes a 30-metre safety zone on either side. The right-of-way allows pipeline operators access to inspect, maintain, repair, and test the pipelines.

Trans Mountain installs permanent signs called pipeline markers along the pipeline route to aid with right-of-way identification. Markers can be seen at road and railway crossings and above-

1-888-876-6711

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ground facilities where they are used to identify the general location of a pipeline. All Trans Mountain pipeline markers display important information about the pipeline, including the product transported, the pipeline operator's name, emergency contact number, and the local One-Call centre number.

1.3.1 Types of Pipeline Markers




**Right-of-Way Marker****Casing Vent Marker****Aerial Marker****Road Markers**

The Emergency Number for Trans Mountain is

1-888-876-6711.

1.4 How to Identify Pipeline Releases

A member of the community may identify a pipeline release, either real and/or suspected, by understanding the common signs of a pipeline release listed below.

- | | | |
|---------------|--|--|
| Smell |  | <ul style="list-style-type: none">• Chemical or petroleum odours (like gasoline or diesel fuel)• Sulphur or rotten egg smell |
| See |  | <ul style="list-style-type: none">• A pool of liquid near the right-of-way• A rainbow sheen on water• Dead or discoloured vegetation |
| Listen |  | <ul style="list-style-type: none">• Unusual noises such as roaring or hissing |

In the event a pipeline release from a Trans Mountain operated pipeline is identified or suspected, immediately call the Emergency Number at:



1-888-876-6711.

This number connects directly to Trans Mountain's Control Centre and is monitored on a 24/7 basis.

1.5 Top Pipeline Safety Tips for the Public in the Event of a Pipeline Release

In the event of a pipeline release, local governments can provide their communities with information on what **to do** in the event of a pipeline release.

Leave the area immediately, on foot and upwind.

- Abandon any mechanized equipment being used in or near the area.
- Call Trans Mountain's 24-hour emergency line **1-888-876-6711**.
- Warn others away.
- Eliminate ignition sources (keyless door entry, cell phone or flashlight).
Turn off vehicle engines.

DO NOT:

- Re-enter the area.
- Ring doorbells or metal knockers; knock with your hand to avoid sparks.
- Operate pipeline valves.
- Touch any liquid or vapour.
- Start your vehicle or drive into the release location or vapour clouds while leaving the area.
- Try to extinguish any fires associated with the release; wait for trained professionals.

SECTION 2: FIRST RESPONDER EMERGENCY RESPONSE

2.1 Reporting a Pipeline Release

When First Responders arrive at the scene of a pipeline release, they should immediately notify the Trans Mountain Control Centre. The Control Centre number is monitored 24 hours a day.

The Trans Mountain Control Centre number is

1-888-876-6711.

2.2 First Responders: Information to Report

When contacting the Control Centre, the Control Centre Operator will ask a series of questions in order to gather as much information about the incident as possible. Answer each question as clear, thoroughly, and timely as possible.

Information asked by the Control Centre Operator is likely to include:

- Name and telephone number of the caller
- Location of the incident
- Description of the release
- Estimated quantity
- Actions taken to date
- Assistance required
- Injuries
- Weather conditions
- Possible cause of the release (i.e. third party contact)

2.3 Product Description

The range of crude oil products carried in Trans Mountain pipelines have common characteristics. These characteristics may be helpful in identifying a pipeline release.

The Safety Data Sheet (SDS) for the relevant product will be provided to all First Responders upon arrival at incident site and forwarded to affected and potentially affected community's emergency representative.

Characteristic	Synthetic Crude/Refined Product
Appearance	Light brown or yellow liquid
Odour	Similar to gasoline or diesel fuel
Behaviour	Synthetic crude flows with land profile Vapours are heavier than air
Volatility	Flammable (-50°C to -40°C flash point) and explosive properties, especially when first released
Other	H ₂ S may be present in low concentrations, less than 10 ppm

Note: H₂S is extremely poisonous.

Further information is contained within Appendix A – [Product Summary Data Sheet](#).

2.4 First Responders: Initial Measures to Ensure Public Safety

Initial measures taken by First Responders to ensure public safety will depend upon the size of the emergency, but can include:

- Establishing a safe perimeter around the emergency site.
- Staying upwind of the emergency; monitoring for flammable or toxic gases, if possible; being aware that vapours can “pool” at ground level.
- Eliminating ignition sources (cigarettes, cell phones, radios, vehicles, etc.); this includes NOT using doorbells or metal knockers when notifying residents of a release.
- Preventing individuals from having contact with the product released from the pipeline.
- Not operating pipeline valves or equipment of any type; only pipeline responders should operate pipeline equipment.
 - You may inadvertently route more product to the leak or cause a secondary incident.
- Preventing and extinguishing secondary fires; use dry chemicals, CO₂ or foam.
- Supplying medical aid if required.
- Allowing Trans Mountain personnel clear access to the emergency site.

2.5 First Responders: Public Safety Protection Methods

Once the extent of the pipeline emergency has been determined, local governments - in conjunction with First Responders - can decide which public safety response actions may be required.

The most common immediate response actions for pipeline emergencies are:

Move away from the incident area AND shelter-in-place (stay indoors)

OR

Evacuate

The decision to evacuate or shelter-in-place is based upon multiple factors including:

- Type of product released
- Amount of product released
- Location of the release
- Potential exposure to the release during evacuation
- Anticipated duration of the emergency and
- Advice from Trans Mountain personnel

If exposure to the release is imminent, or if evacuation is likely to expose individuals to harmful substances, then sheltering-in-place would be the most suitable strategy. If advised to evacuate, or if it is safe to leave the affected area, then evacuation procedures should be followed.

The following are guidelines to assist local government decisions, noting that First Responders possess the training, knowledge, and experience necessary to assess the need for, and to carry out, safe and effective shelter-in-place and evacuation procedures.

2.6 First Responders: General Shelter-In-Place Guidelines

- Notify the public of the need to shelter-in-place.
- Remain indoors until further instructions are given. If outside when alerted, proceed to nearest safe building.
- Inform the public to complete the following actions while indoors:
 - Shut down the buildings heating and cooling systems.
 - Turn off local fans.
 - Close doors and windows.
 - Seal gaps under doors and windows.
 - Seal vents if possible.
 - Turn off sources of ignition, such as pilot lights.
 - Remain in place until given the all-clear by local officials.

2.7 First Responders: General Evacuation Guidelines

- Notify the public of the need to evacuate.
- Instruct individuals to evacuate their homes and other occupied buildings.
- Determine the best mode of transportation. This may include walking, or if safe, the use of buses and personal vehicles.
- Follow the community's designated evacuation route or the directions of First Responders.
- Evacuate to the designated meeting point or reception centre.
 - If the assigned meeting point is deemed unsafe, then determine and communicate alternative location(s).
- Check in with appropriate staff at the meeting point or reception centre.
- Remain in place until given the all-clear from the appropriate officials.

SECTION 3: TRANS MOUNTAIN EMERGENCY RESPONSE

3.1 Emergency Levels

A potential emergency can be defined as a release of unknown volume, unconfirmed and is adjacent to water or where there is a pathway to water, and the environmental conditions, such as rain events or known shallow groundwater make impacts to water likely.

The incident will be identified and classified into Trans Mountain's three-tiered response structure. Each tier is managed by an escalating degree of management seniority and authority, and assistance from outside the initial response organization.

Level	Definition	Examples
1	The Company has the capability to manage and control a Level 1 emergency using company resources available within the area. The District Supervisor will assume the Incident Commander position.	<ul style="list-style-type: none"> • Oil releases confined to company property (pipeline station, terminal, or scraper trap) • Public, contractor, or employee safety not endangered • Public property not endangered • Local response handled by District personnel • Notification may not be required to regulatory authorities • Little or no media interest
2	The Company has the capability to manage and control a Level 2 emergency using company resources and expertise, with some assistance from local contractors. The Region Director or designate may assume the Incident Commander position.	<ul style="list-style-type: none"> • Oil has migrated beyond company property (pipeline station, terminal, or scraper trap) but not into a waterway • Emergency services may be required • Public, contractor, or employee safety and/or property may be endangered • Notification required to regulatory authorities • May use a Unified Command organizational structure • Local media interest
3	The Company may request assistance from other industry, municipal, or state agency personnel to support the response to the incident. The Region Director will assume the Incident Commander position.	<ul style="list-style-type: none"> • Major emergency condition such as: <ul style="list-style-type: none"> ○ Uncontrolled leak ○ Release on a watercourse ○ Large fire at an operating facility or office building ○ Fatality or serious injury to an employee, contractor, or the public ○ Release of hazardous substances • Major off-site environmental impact has occurred • Public, contractor, or employee safety and/ or property is endangered • Emergency services are required • Notification required to regulatory authorities • Use of a Unified Command organizational structure to facilitate coordination of company, government, and other agency response to the emergency • Local, provincial/state, and/or national media interest

3.2 Trans Mountain Notification Procedure

After a pipeline release has been reported and confirmed, the Control Centre will begin the internal and external notification processes.

With regards to external personnel, Trans Mountain follows a procedure that ensures First Responders, emergency contractors, and both federal and provincial regulatory agencies are notified of a confirmed emergency if they are not already aware of it.

3.2.1 Initial Notifications

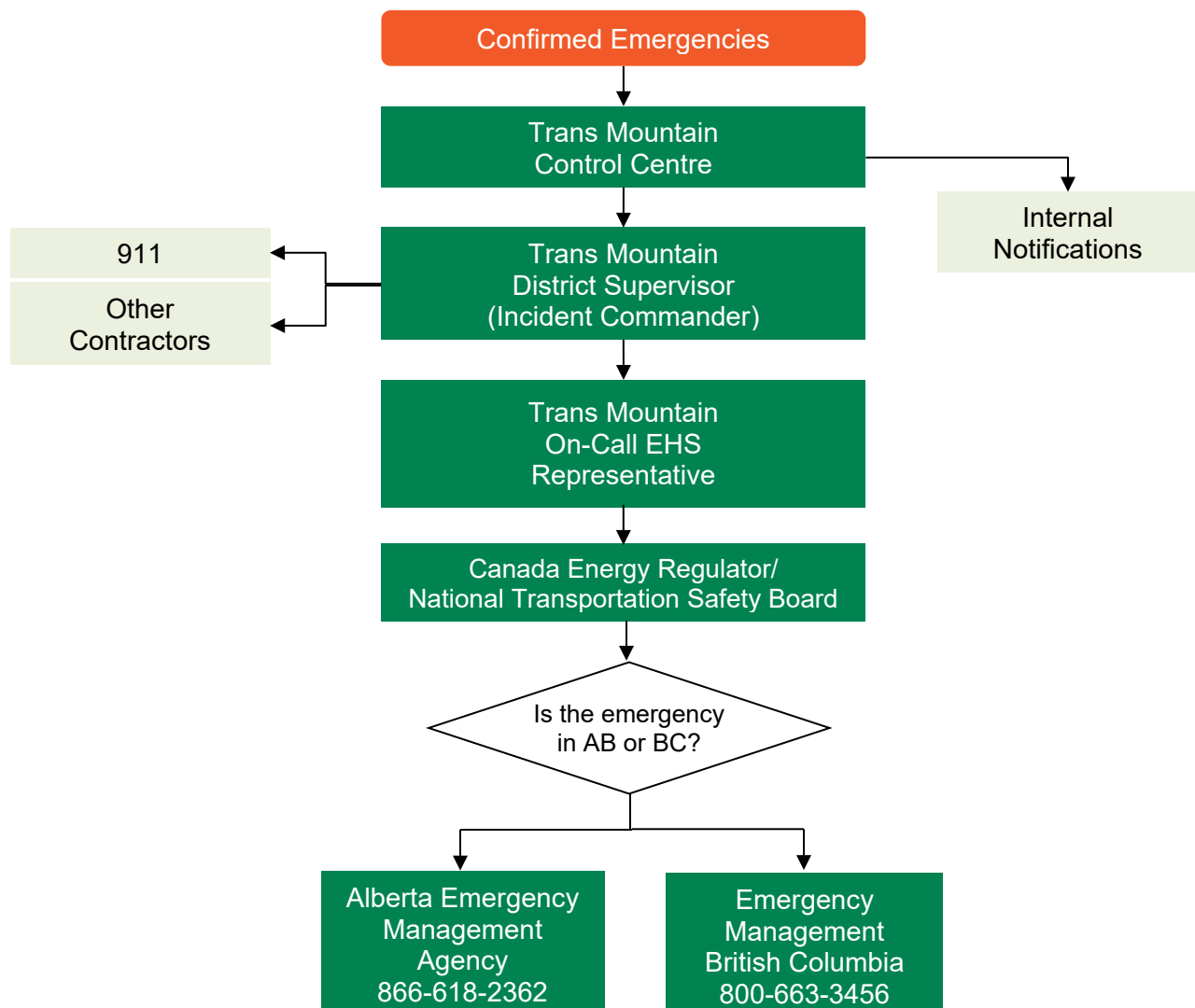


Figure 1. Notification process

If a community is affected by an incident, Trans Mountain will notify the local government as soon as possible.

Entities notified include:

- Provincial emergency management agencies
- Various regulatory agencies (Ministry of the Environment, Department of Fisheries and Oceans, etc.), Local government
- Indigenous Communities
- Health authorities

Impacted communities and their local governments will be identified based on the location of the incident and by using Trans Mountain's Geographic Information System (GIS) mapping applications. Trans Mountain maintains a database of information for communities located along the pipeline and will confirm that notification of their local governments is completed, through the Liaison Officer.

In addition, communities downstream from the emergency, potentially at risk, or likely to be impacted will be notified.

Trans Mountain recognizes that in some situations a provincial response may not be required; however, the local authorities and/or other potentially impacted agencies may wish to receive additional information regardless of the decision to respond from the provincial or federal governments. Therefore, Trans Mountain is committed to making additional notification calls, as time allows, and to establish a conference call to ensure potential responders are aware of the situation.

3.2.2 Regulatory Notifications

Emergency condition notifications are made to the National Transportation Safety Board (NTSB) and Canada Energy Regulator (CER), Emergency Management British Columbia (EMBC), and/or Alberta Emergency Management Agency by Trans Mountain as per the applicable regulation.

The CER is notified of emergency and safety shutdowns when a potential or actual emergency has been identified.

The NTSB is notified of significant incident is an acute event that results in: death, missing person, a serious injury (as defined in the Onshore Pipeline Regulations (OPR) or Transportation Safety Board (TSB) regulations), a fire or explosion that causes a pipeline or facility to be inoperative, a LVP hydrocarbon release in excess of 1.5 m³ that leaves company property or the right-of-way, a rupture; or a toxic plume as defined in the Canadian Standards Association Z662 Oil and Gas Pipeline Systems. For the purposes of this document, a "rupture" is an instantaneous release that immediately impairs the operation of a pipeline segment such that the pressure of the segment cannot be maintained.

BC Ministry of Environment and Climate Change Strategy and Alberta Environment and Alberta Energy Regulator must be notified if a spill release enters, or is likely to enter, a body of water, or

the quantity of the substance released is, or is likely to be, equal to or greater than the listed quantity for the listed substance.²

If there is some doubt as to whether an event should be reported or whether an event has occurred, a potential event will be reported at the very least.

3.3 Incident Command System (ICS)

Trans Mountain responds to all real, or potential, emergencies using the Incident Command System (ICS). The ICS allows for the integration of equipment, facilities, personnel, and communications within a common organizational structure to respond to a pipeline emergency.

In the unlikely event of a pipeline emergency Trans Mountain will establish an Incident Command Post (ICP) near the incident location, typically in hotels or a community center. Local governments and First Responders can expect to be invited to attend and participate in the ICP.

Local governments may also choose to send government representatives, in addition to First Responders, to the incident site where they may serve in various operational roles, depending on the incident. Such community members need to check in with Trans Mountain responders at the ICP.

3.4 Unified Command

Based upon the incident, and wherever possible, Trans Mountain aims to establish a Unified Command structure for emergency response. Unified Command's responsibility during an incident is to provide overall guidance and support to respond to the incident. This is achieved through the drafting of key objectives, identifying response priorities, and following an inclusive decision-making process. Unified Command sets the direction of response activities including developing and implementing strategic decisions, endorsing Incident Action Plans (IAPs), and approving the order and release of resources. The Unified Command maintains situational awareness of the incident and its evolving hazards and will confirm the local authority has updated information to aid in its decision-making on public safety. Members of the Unified Command will support the local authority in the implementation of the public safety measures.

Unified Command is composed of:

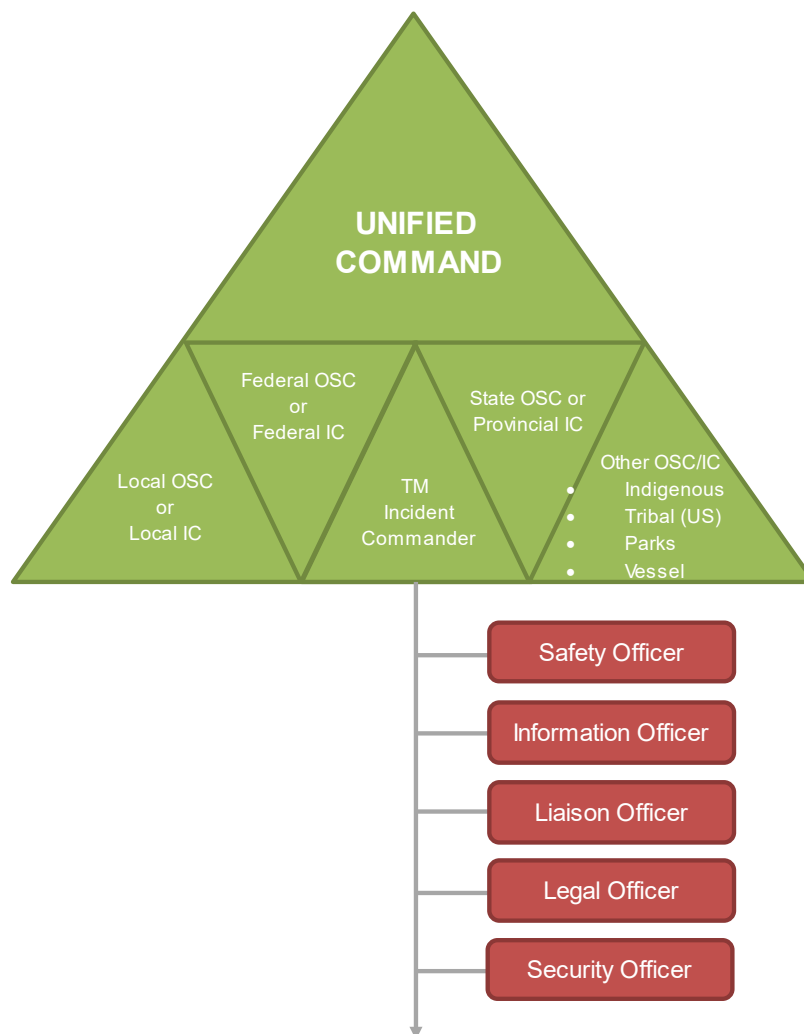
- Local Representative or Fire Chief of the local government where the incident originates
- Federal Representative
- Trans Mountain Representative
- Provincial Representative
- Other local government representative (First Nations, Parks, etc.)

² BC Spill Reporting Regulation, 2017

For emergencies in which communities are impacted by a pipeline release, Trans Mountain will invite representatives from the local government and First Responders to participate in Unified Command.

Once representatives arrive at the ICP, the Liaison Officer or a Liaison Officers assistant will greet them and ensure they are provided a work area appropriately located so they can best aid the response efforts.

Unified Command is not used in all situations. In some instances, and typically for smaller sized incidents, a single Incident Commander from Trans Mountain may exercise authority. In such cases the appointed Liaison Officer may ensure that any impacted communities and their local governments are informed of the incident. The Liaison Officer then remains in contact with the affected parties until the response phase is terminated.



3.5 Additional ICS Roles for Local Government Representatives

There are a multitude of roles in which local government representatives may participate outside of Unified Command.

Certain ICS roles will be located within the ICP while others are located at the incident site. The nature of the incident determines the specifics of these roles. Roles in which local government representatives may be asked to participate in, or assist with, include Liaison Office, Operations, Joint Information Center and/or the Environmental Unit located within, Planning Section.



Figure 2. Typical response organization structure, from Trans Mountain – 2022, Incident Command System Guide

3.5.1 Liaison Office

Local government and First Responder representatives, other than those on direct tactical assignments or participating in Unified Command, may assist in the response through the Liaison Office. Responsibilities include:

- Ensuring that all organization resources are properly checked-in at the incident.
- Attending briefings and planning meetings as required.
- Providing input on the use of organization resources unless resource technical specialists are assigned from their organization.
- Cooperating fully with the Incident Commander and the General Staff on their organization involvement at the incident.
- Ensuring the well-being of organization personnel assigned to the incident.
- Advising the Liaison Officer of any special organization needs or requirements.
- Reporting to home organization dispatch or headquarters on a prearranged schedule.
- Ensuring that all organization personnel and equipment are properly accounted for and released prior to departure.

3.5.2 Joint Information Centre

It is recommended that a Joint Information Centre under Unified Command be established between Trans Mountain and the local authority to prepare and execute on an external Communications Plan. The external Communications Plan's objectives are to:

- Provide information about the incident and the related response effort to all stakeholders in a timely, accurate, and responsible fashion.
- Ensure that information about the incident is clear, factual, and consistent with that provided by other responders and government agencies.
- Minimize unnecessary speculation, rumour, or concerns about the incident and potential risks to the public.
- Protect the company's reputation as a responsible corporate citizen.

The local authority has the primary responsibility for the development and dissemination of notifications to the community. The JIC can prepare and/or support these activities; or if not established, Trans Mountain, as requested. Communications could include but is not limited to:

- Public notification and situation updates
- Official communications to key audiences
- Media relations

The Trans Mountain Crisis Management Plan can guide the activities of the JIC. A template for the initial media holding statement for the incident is available in Appendix D, Initial Media Holding Statement (Template).

3.5.3 Environmental Unit

The Environmental Unit is responsible for environmental matters associated with the response, including strategic environmental assessment, modeling, surveillance, and permitting. Local government personnel and technical specialists participating in the Environmental Unit may assist in the development of incident specific plans such as air monitoring, waste management and/or environmental sampling plans.

An additional function within the Environmental Unit which representatives from local governments could participate is the Science Table. The Science Table provides responders with consolidated and coordinated environmental advice, information, and assistance in the event of an environmental emergency. The Science Table brings together relevant experts in the field of environmental protection including technical specialists from Local Governments and response agencies. The makeup of the Environment Unit is tailored to the scope of the incident.

3.6 Supplemental Plans

Supplemental Plans are considered a subset of the Emergency Response Plans and provide guidance on the assessment and management of particular hazards and/or consequences that may arise during an incident. Trans Mountain's list of supplemental plans include:

- Convergent Volunteer Management Plan
- Decontamination Plan
- Non-Floating Oil Assessment and Response Guide
- Public Health Assessment and Response Plan for Airborne Health Risks Associated with Pipeline/Terminal Operations and Incidents (previously titled Air Monitoring Plan)
- Sampling and Monitoring Plan
- Waste Management Plan
- Wildlife Management Plan

3.7 Evacuation Plans

Trans Mountain has prepared evacuation plans for the Terminals - Edmonton, Kamloops, Sumas, Burnaby, and Westridge Marine Terminal. There is also an evacuation guideline for pipelines. The evacuation plan describes the measures Trans Mountain personnel complete, in conjunction with those with the authority to issue evacuation orders, shelter-in-place alerts, during an emergency at a Trans Mountain Terminal or along the pipeline that may require the evacuation or shelter-in-place of the surrounding community.

The Evacuation Plan covers:

- The initial actions that Trans Mountain personnel will take to establish the Initial Isolation Zone and to evacuate the zone to mitigate immediate danger to life and health.
- The actions that the local authority, as well as other relevant government departments and assisting agencies, may complete to implement the appropriate safety measures to mitigate potential impacts to the public arising from an incident at the Terminal, or along the pipeline, with assistance from Trans Mountain, as required.

The applicable Evacuation Plan is intended to be activated in coordination with the local authority and in conjunction with the Trans Mountain ERP, and the Trans Mountain Public Health Assessment and Response Plan for Airborne Health Risks Associated with Pipeline/Terminal Operations and Incidents.

3.8 Crisis Communications Plan

In addition to ERPs and supplemental plans, Trans Mountain has developed a Crisis Communication Plan. The Plan is designed to ensure the Company has adequate resources and processes in place to respond to the information needs of its stakeholders, customers, government and regulatory officials, the public, and media during an emergency.

SECTION 4: RECOVERY

4.1 Terminating/Downgrading the Response

The decision to terminate and/or downgrade emergency operations and to demobilize personnel and equipment shall be made on a site-specific basis and based on the status of the incident. Factors that may affect the decision to terminate/downgrade the response include:

- The emergency condition has been controlled and immediate threats to the health and safety of the public have been eliminated.
- Any leaks or releases that have been contained, and all remaining free oil, petroleum products, or hazardous materials have been recovered from the site.
- Repair operations have been undertaken to prevent further releases from occurring.
- Further emergency operations at the site will cause more damage to property and the environment than that which resulted from the release initially.

The Trans Mountain Incident Commander or designee shall consult appropriate government agencies and other involved parties before making any decisions related to terminating/downgrading response activities. These agencies and involved parties include representatives from federal, provincial, and/or municipal agencies with jurisdiction in the emergency.

4.2 Incident Debriefing

Incident debriefing is a critical component of response and will be organized by Trans Mountain in consultation with participating agencies, local communities, provincial, and federal government representatives, and other relevant stakeholders.

The incident debriefing includes a review of the participant's role in the response, the event chronology, and the incident response phases. When discussing the event chronology, aspects that may be discussed include the completed incident briefing, mapping, and the activated ERPs. Reviewing the incident response phases allows for opportunity to note learnings regarding the initial notification, response team activation, initial response actions, and public notification and safety management.

The review process enables participants to voice their perspective. For large groups, breakout groups may be used to help identify key points and action items. Responsibilities, accountabilities, and timelines should be assigned to all action items.

CONCLUSION

Trans Mountain understands that Emergency Management is of paramount importance for local governments and First Responders and wants to continue to support our mutual commitment to the safety and security of responders, the public, the environment, and property. Trans Mountain values the knowledge and expertise held by First Responders and local governments. Ongoing collaboration will help ensure your and our emergency plans consider and would allow coordination in the unlikely event of a pipeline release.

For more information about the Emergency Management Program, or to view Trans Mountain's emergency response plans and documents, please visit:

<https://www.transmountain.com/emergency-response-plans>.

The Trans Mountain Emergency Management Team is available to answer questions and provide supplemental information. To contact the Trans Mountain Emergency Management Team, call 403-514-6400 or email Emergency_Management@transmountain.com.

To report emergencies, contact Trans Mountain at

1-888-876-6711.

APPENDIX A – PRODUCT SUMMARY DATA SHEET

Upon verification of a pipeline release, Trans Mountain will notify affected and potentially affected communities of the product involved. A Safety Data Sheet (SDS) for the relevant product will be forwarded to them at that time.

This Summary Safety Data Sheet represents the range of crude oil products that may be shipped by the Trans Mountain Pipeline or stored at terminals. The ranges provide information on the most extreme to least extreme of the specifications. The Safety Data Sheet (SDS) or Material Safety Data Sheet (MSDS) will be provided to all responders upon arrival at site which will outline the specific hazards for the product involved.

Physical Description

Liquid, black to colourless; odours include rotten eggs, sulphur, hydrocarbon, petroleum, and solvent.

Route of Exposure: Inhalation, skin absorption, skin or eye contact, accidental ingestion.

Associated hazards:

- Extremely toxic and H₂S may be present.
- Is a flammable liquid.
- Combustible and can accumulate static charges which may cause an ignition.
- May produce thermal burn.
- Toxic gases will form upon combustion.
- Vapor accumulation could flash and/or explode if ignited.
- Inhalation of oil mist vapors from hot oil may cause irritation of the upper respiratory tract.
- Can also cause headaches, nausea, loss of appetite, dizziness, drowsiness, vomiting, loss of consciousness, and death.
- Irritating to eyes, skin, nose, throat, and lungs.
- May cause headaches.
- Ingestion may cause chemical pneumonia, severe lung damage, and respiratory failure.
- Prolonged exposure may cause serious health effects.
- Can cause central and peripheral nervous system damage.
- Is carcinogenic.
- May affect fetal development and heritable genetic damage.

SDSs for all possible products are not provided to local governments ahead of time because the Trans Mountain pipeline carries over 50 different products, all but one of which will be irrelevant for any particular incident. In addition, the SDSs are updated from time to time; forwarding the appropriate SDS in the event of a pipeline release ensures the municipality has access to the most up-to-date information.

First Responder Quick Reference Tear-out Page

General Chemical Properties of Petroleum

Property	High	Low
Boiling Point	1100°C	-89°C
Density	1200 kg/m ³ (1.013 g/cm ³)	800 kg/mc (0.661 g/cm ³)
Vapor Density	7.8	>1
Specific Gravity	1.03	0.7
Flashpoint	260°C	-40°C
Auto Ignition	537°C	229°C
Viscosity	350 mm ² /s	0.11 mm ² /s
Water Solubility	Slight	Insoluble

Toxicological Information

Benzene	
LD50 High: 8260 mg/kg Low: 690 mg/kg	LC50 High: 13700 ppm Low: 4000 ppm
H ₂ S	
LD50: 390 mg/kg	LC50: 444 ppm

APPENDIX B – GLOSSARY OF SELECTED TRANS MOUNTAIN AND ICS TERMS

Abandoned Pipeline – A pipeline or section of pipeline de-commissioned and no longer in use. Abandoned pipelines may be left in place or removed, with appropriate measures taken to restore the natural environment after removal.

Advanced Response Equipment – Additional supplies of equipment that is more specialized and/or additional equipment already part of the initial response. This includes fire-fighting equipment, fire-fighting foam, oil tracking technologies, wildlife response equipment, additional boom, storage, and recovery equipment. See also **Initial Response Equipment**.

Agency Representative – Individual assigned to an incident from an assisting or cooperating agency who has been delegated full authority to make decisions on all matters affecting his/her agency's participation at the incident. Agency Representatives report to the Liaison Officer upon arrival at the ICP.

Assisting Agency – An agency which directly contributes tactical or service resources in support of an incident response.

Clear Text – The use of plain English in radio communications transmissions. No Ten Codes nor agency specific codes are used when using Clear Text.

Control Centre – A room or rooms containing computer and electronic monitoring systems designed to assess pipeline and infrastructure status on a 24/7 basis. The Trans Mountain Pipeline Control Centre is located in Edmonton. The Control Centre has the ability to remotely start, limit, or halt the flow of product within some or all of the pipeline.

Control Point – A location specific response tactic used to contain or recover oil. A river, stream or creek may include many control points along its path where response resources (boom, skimmers, etc.) may be deployed. Control Points are described in the Emergency Response Plans.

Convergent Volunteers – Individuals, typically members of the public, and not requested by Trans Mountain, who converge upon an emergency site in order to provide service and support to response activities following an emergency. Trans Mountain does have a plan and resources allocated to manage convergent volunteers who may offer their support.

Cooperating Agency – An agency supplying assistance other than direct tactical, support, or service functions or resources to the incident control effort (e.g., Red Cross, telephone company, etc.).

Decontamination Trailer – A trailer use to transport equipment to facilitate the cleaning of personnel and small equipment. Decontamination trailer equipment ensures that when personnel leave an impacted area, they do not track contaminants with them. Equipment includes wash stations, pools, tents, detergent, hand sprayers and other equipment.

Emergency Management – Management of an emergency or incident. The Trans Mountain ICS organization is designed to fulfill the emergency management role.

Emergency Operations Centre (EOC) – A pre-designated facility established by an agency or jurisdiction to coordinate the overall agency or jurisdictional response and support to an emergency response.

Emergency Response Equipment – Equipment dispatched to the incident site that is specific in nature to affect the response. This does not include pipeline and/or facility repair crews. However, it does include recovery equipment and temporary storage equipment. Trans Mountain divides Emergency Response Equipment into two categories: Initial Response and Advance Response Equipment.

Emergency Response Plan (ERP) – A documented set of guidelines and procedures required to respond to an emergency within the plan's stated scope. Trans Mountain currently has four (4) ERPs: Terminals, Trans Mountain Pipeline, Trans Mountain Pipeline (Puget Sound), Westridge Marine Terminal.

Geographic Information System (GIS) – An electronic information system, which provides a geo-referenced database to support management decision making.

Geographic Response Plan (GRP) – A documented set of procedures and guidelines which identify and describe sensitivities, including natural and cultural resources, and other geographically specific information relevant to emergency response, such as Control Points. GRPs complement and support ERPs. For example, there are four (4) separate GRPs supporting the Trans Mountain Pipeline ERP.

Hydrogen Sulphide (H₂S) – A gas which may be present in or given off by crude oil, synthetic crude oil, and/or refined products. Natural gas containing relatively high concentrations of H₂S is referred to as "sour gas"; H₂S smells of rotten eggs and is extremely poisonous.

Initial Isolation Zone - The geographical area near a continuous hazardous release where all non-response personnel should be evacuated as there may be an immediate danger to life and health for those not protected by appropriate PPE as the result of the incident.

Incident Management Team – A minimum group of trained Trans Mountain responders located at the Incident Command Post filling the following positions: Incident Commander, Safety Officer, Information Officer, Legal Officer, Liaison Officer, Operations Section Chief, Planning Section Chief, Environment Unit Leader, and Logistics Section Chief. Additional positions within the Incident Management Team will be staffed as follows: Finance Section Chief, Staging Area Manager, Situation Unit Leader, and Documentation Unit Leader.

Incident Management Support Team – Individuals who are tasked with support roles in the operation of the Incident Command Post and who will not fill leadership positions.

Initial Response Equipment – The first piece(s) of equipment on-site including temporary air-monitoring equipment that may be used to protect the public, employees, or environment.

Joint Information Centre (JIC) – A facility established within, or near, the Incident Command Post where the Information Officer and staff can coordinate and provide incident information to the public, news media, and other agencies or organizations. The JIC is normally staffed with public information representatives from participating agencies, government, and from Trans Mountain.

Jurisdiction – A range or sphere of authority. At an incident, public agencies have jurisdiction related to their legal responsibilities and authority for incident mitigation. Jurisdictional authority at an incident can be political/geographical (e.g., city, county, provincial, or federal boundary lines), or functional (e.g., police department, fire department, health department, etc.).

Jurisdictional Agency – The agency having jurisdiction and responsibility for a specific geographical area or a mandated function.

Liaison Officer (LO) – A member of the Command Staff responsible for coordinating with stakeholder groups and representatives from assisting and cooperating agencies.

Multi-Agency Incident – An incident where one or more agencies assists a jurisdictional agency or agencies. May be single or Unified Command.

Multi-Jurisdiction Incident – An incident requiring action from multiple agencies that have statutory responsibility for incident mitigation. In ICS, these incidents will normally be managed using a Unified Command.

OSCAR Trailer – Oil Spill Containment and Recovery Trailer - A large, truck drawn trailer containing various tools and release response equipment ranging from absorbent materials and skimmers to booms and other clean up tools specific to the area in which the trailer is located.

Pipeline Markers – Permanent signs, position along the pipe-line right-of-way. Markers can be seen at road and railway crossings and above-ground facilities. Pipeline markers display information such as the product carried and the emergency contact number. Pipeline markers indicate the general location of the pipeline.

Potential Emergency – A release of unknown volume, unconfirmed and is adjacent to water or where there is a pathway to water, and the environmental conditions, such as rain events or known shallow groundwater make impacts to water likely.

PPE – Personal Protection Equipment – equipment or clothing worn by personnel meant to provide protection from various hazards that may be encountered when responding to a pipeline emergency. Typical PPE includes gloves, Fire-Resistant coveralls, boots, respirators, goggles, etc.).

Protective Action Zone - The geographical area associated with a credible worst-case incident that is used to educate community members on the public safety measures, including evacuation or shelter-in-place, that may be required during an incident due to the potential for an imminent threat to health. This area will be adjusted during an incident to account for the actual incident

type and the safety measures required to mitigate potential impacts to the public. May be referred to by other entities as the Emergency Planning Zone (EPZ).

Resources – All personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.

Responsible Party (RP) – The owner/operator of the infrastructure which is the release source.

Right-of-way – The strip of land under which the pipeline is buried extending 30 metres either side of the pipeline to allow access to inspect, maintain, repair, and test the line.

RP Incident Commander (RPIC) – Trans Mountain’s designated Incident Commander.

Rupture – An instantaneous release that immediately impairs the operation of pipeline segment such that the pressure of the segment cannot be maintained.

Source Control – Actions necessary to control the release source and prevent the continued release of oil or hazardous substance(s) into the environment.

Unified Command (UC) – A unified team which manages an incident by establishing a common set of incident objectives and strategies.

APPENDIX C – ACRONYMS

CER	Canada Energy Regulation
EOC	Emergency Operations Centre
EMBC	Emergency Management BC
ERP	Emergency Response Plan
GIS	Geographic Information System
H₂S	Hydrogen Sulphide
HAZWOPER	Hazardous Waste Operations and Emergency Response
IAP	Incident Action Plan
IMT	Incident Management Team
IRT	Incident Response Team
JIC	Joint Information Centre
KP	Kilometer Post
MSDS	Material Safety Data Sheet (also known as SDS)
NTSB	National Transportation Safety Board
OPR	Onshore Pipeline Regulations
SDS	Safety Data Sheet
SCAT	Shoreline Cleanup and Assessment Technique

APPENDIX D – MEDIA HOLDING STATEMENT

The following statement can be issued by a municipality upon receipt of information that a possible pipeline incident has occurred:

MEDIA STATEMENT

(Enter City, Province), (Enter date) – Trans Mountain is investigating a (possible/confirmed) (enter brief description of incident) in/at (enter description of area). (Enter any initial measures) are being taken to ensure the safety of those in and around (name of municipality or area of possible pipeline incident).

More information will be provided as it becomes available. For the latest information and updates visit www.transmountain.com.

Media Contacts

(Enter name)

(Enter title)

(Enter phone number)

(Enter email address)

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To provide updates via Twitter

- Use the name of the incident or location to create a unique hashtag and use it consistently throughout response.
- Link to the incident response site wherever possible.
- Use approved key messages and post regular updates as more information about the incident becomes available.
- Respond to legitimate questions about the incident received via Twitter within 2 hours.

Possible Tweet Content

*Trans Mountain is investigating a possible incident at (enter facility name and/or location). Information will be provided as it becomes available. Check www.transmountain.com.
#location*

UPDATE: #TransMountain crews are responding at (enter facility name and/or location). #municipality. More information about ongoing response efforts can be found here: LINK