

**Trans Mountain Pipeline ULC (Trans Mountain)
Onshore Pipeline Regulations and Filing Manuals Update
Phase 2 – Engagement Overview
Due Date: March 31, 2025**

H. OPR – Reporting Harm Topic Paper

This paper describes potential amendments to the OPR to improve the CER's oversight of Reporting Harm. Any suggestions for improvement regarding this topic are welcome, and in particular, the CER seeks your comments on proposed improvements related to:

- the definition of incident;
- incident near-misses;
- those incidents that have the potential to harm the environment;
- industry-wide learning opportunities from reported incidents; and,
- sites of historic and cultural significance.

Background: Reporting Harm

The CER is seeking your input on proposed improvements to reporting requirements relating to the definition of incident, incident near-misses, and industry-wide learning opportunities from reported incidents.

The OPR currently defines an incident as follows:
incident means an occurrence that results in:

- a) the death of or serious injury to a person;
- b) a significant adverse effect on the environment;
- c) an unintended fire or explosion;
- d) an unintended or uncontained release of LVP hydrocarbons in excess of 1.5 m³;
- e) an unintended or uncontrolled release of gas or HVP hydrocarbons;
- f) the operation of a pipeline beyond its design limits as determined under CSA Z662 or CSA Z276 or any operating limits imposed by the Regulator.

Section 52 of the OPR contains a reporting requirement for regulated companies to immediately notify the CER of any incident relating to the construction, operation, or abandonment of its pipeline, and to submit a preliminary and detailed incident report to the CER as soon as is practicable.

Subtopic 1: Definition of Incident — General

In this phase of engagement, the CER would like to obtain feedback on additional topics that may not have been discussed in the first phase of engagement. Based on learnings from implementing the OPR, the CER has identified an opportunity to improve its definition of “incident”.

Objective for Improvement

The objective of new requirements will be to help ensure that the OPR definition of “incident” is as clear as possible.

Proposed Option

To meet the objective outlined above, the CER is considering amending the definition of incident.

Discussion Questions

- h.1) Describe challenges or limitations that regulated companies have experienced when interpreting or applying the current OPR definition of “incident”.

Response:

Environmental

Under Section 1 of the OPR, the definition of “incident” includes a significant adverse effect on the environment. Section 5.2.2 of the CER [Event Reporting Guidelines](#) (ERG) clarifies that a “significant adverse effect on the environment” is an unauthorized impairment of or damage to the environment resulting in harm to human life, wildlife, or vegetation.” The ERG goes on to state “In cases where the company has a reasonable expectation that a significant adverse effect on the environment has occurred, may occur if conditions continue or escalate, or is suspected or unconfirmed at the time of incident reporting, companies are expected to apply the precautionary approach.”

In Trans Mountain’s experience, the CER has required it to report events that are not irreversible, long-term, or have resulted in a continuous change to environmental features – such as a small release of sediment into a large body of water which has negligible impact to fish populations. During 2022 and 2023, 30% of Trans Mountain’s environmental event reports submitted to the CER were for non-significant events. The associated reporting burden is large, and for non-significant events, there is generally a lack of change or follow-up required by the company.

Death or Serious Injury

An event such as a serious injury or death must be attributable to the construction, operation or abandonment of the pipeline. Pipeline owner/operator companies do not have control or visibility into the personal lives of employees and contractors outside of work. Additionally, Trans Mountain notes that companies are bound by levels of confidentiality and may not be able to access or provide information to CER staff based on direction and respect of the person(s) impacted or next of kin.

- h.2) Based on industry experience and best practices, describe where improvements to the OPR definition of “incident” can complement areas of overlapping federal, territorial and/or provincial legislation and/or reduce reporting redundancies.

Response:

In Trans Mountain’s view the definition of incident is clear and does not have further feedback to offer at this time.

- h.3) What instructions or decision-making tools (e.g., risk matrix, checklist, decision tree) are most useful for regulated companies to make a timely assessment of whether an occurrence requires immediate notification to the CER?

Response:

Decision-making tools such as risk matrices and decision trees are standard across industry, and the OPR requires companies to have a management system in place for all corporate program areas, and which is based on a risk-based approach to decision making. Within each program included in the company’s management system, guidance documents exist to help assess the reporting requirements and notification.

Subtopic 2: Environmental Effects

Based on learnings from implementing the OPR, the CER has identified an opportunity to improve its oversight relating to environmental effects.

Objectives for Improvement

The objective of new requirements will be to help ensure that companies:

- clearly understand the CER's reporting requirements when there is a potential for adverse environmental effects; and
- reporting requirements and associated timelines are commensurate with the consequence of the event on people, property and the environment and the probability of the event escalating.

Proposed Option

To meet the objectives outlined above, the CER is considering a risk matrix or similar decision-making tool located within technical guidance that can assist regulated companies in assessing severity, consequence, likelihood and probability of escalation.

Discussion Questions

h.4) Describe industry best-practices that can improve how the CER approaches incident reporting in relation to adverse environmental effects or the potential for adverse environmental effects.

Response:

Please see the response to request h.1), above.

h.5) Describe occurrences, other than chemical releases, that may have adverse environmental effects for which the CER needs to be immediately notified.

Response:

An example of an occurrence, other than a chemical release, that may have adverse environmental effects and would require immediate notification would be an annihilation of spawning ground of a population, not an individual, due to sediment release, or impact to a population of a sensitive species. Another example could be removal of trees that are habitat for a sensitive bird species, or inadvertent impact to heritage resources. These are significant and irreversible, and ought to be immediately reported. In all cases there would be corrective action undertaken by the company, for which the CER can verify through compliance oversight.

h.6) There are occurrences that may result in an adverse environmental effect and may not be considered an incident as defined in the OPR. Depending on their severity, they could be submitted to the CER as a new notification type with an extended timeline and used to assess company performance or trend analysis. What occurrences do you think the CER needs to be notified of?

Response:

Trans Mountain is not aware of an example of an occurrence that that may result in an adverse environmental effect that is not currently reportable under the ERG.

Subtopic 3: Definition of Incident — Loss of Operational View or Control of a Pipeline

Based on learnings from implementing the OPR, the CER has identified an opportunity to improve its oversight of security incidents.

Objective for Improvement

The objective of new requirements will be to help ensure that companies notify the CER of security events, including cyber events, pertaining to loss of operational view or control of their pipelines.

Proposed Options

To meet the objective outlined above, the CER is considering amending the definition of “incident” to include a requirement to notify the CER of security incidents such as loss of operational view or operational control of a pipeline.

Discussion Questions

h.7) What do the terms “loss of operational view or operational control of a pipeline” mean to you?

Response:

Trans Mountain considers loss of operational view or control of the pipeline to mean loss of communication within a specific timeframe that may result in an impact to operations, which could be caused by factors such as loss of local power, severe weather event that either renders a system inoperable or results in a temporary loss of communication. In these cases, companies have redundant system(s) in place including generators, local logic systems, and can switch to back up systems or dispatch field personnel to respond locally. There may be a temporary impact to transportation service, depending on location and delivery type, which may be mitigated through alternatives (i.e., utilizing stored product in tanks to make up for the throughput shortfall).

In relation to a cybersecurity event, Trans Mountain considers loss of operational view or control to be suspected or confirmed intrusion and/or the confirmed unauthorized access into the company’s technology systems that results in the inability of the pipeline to be operated within its design limits.

h.8) How should notification and reporting be treated in relation to such events?

Response:

Companies are required under section 6.5(1)(t) of the OPR to have contingency plans in place for abnormal events. Companies are also required to evaluate risks associated with identified and potential hazards under both normal and abnormal operating events (section 6.5(1)(e)). As such, the OPR considers a range of abnormal circumstances for which companies are required to have controls in place. If the control is adequate to mitigate the consequence of the adverse impact, notification should not be required as the management system operates as intended to mitigate the consequence of an abnormal event. It is only in the circumstance where there is an absence of a control, or an event where the company cannot reasonably recover from, should the event be reportable.

The CER definition of ‘operation beyond design limits’ in section 5.2.6 of the CER [Event Reporting Guidelines](#), envelops these scenarios:

The operation, for any amount of time, of a pipeline beyond the criteria for which the pipeline was designed and/or the operation of the pipeline beyond criteria imposed by the CER to mitigate a condition on the pipeline...

In Trans Mountain’s view, it is not the occurrence of a cybersecurity event that triggers reporting to the regulator. Instead, it is a cybersecurity event that results in an adverse impact to operation due to the absence of control(s), or that for which the company cannot reasonably recover from, that should be reportable to the CER.

Trans Mountain recognizes that there may be circumstances where a threat actor may make public claim to compromising a pipeline, whether correct or not. In that case, the company should have the opportunity to provide a courtesy notice to the regulator or alternatively submit a precautionary report pursuant to

section 3.2, for which the company would be relieved of future reporting obligations pursuant to section 5.3.

h.9) Do you have additional feedback for the CER to consider not covered in questions H7 or H8?

Response:

No.

Subtopic 4: Definition of Incident — Release of Substance Thresholds

In this phase of engagement, the CER would like to obtain feedback on additional topics that may not have been discussed in the first phase of engagement. Based on learnings from implementing the OPR, the CER has identified an opportunity to improve its oversight of low-vapour pressure (LVP) hydrocarbon and high-vapour pressure (HVP) hydrocarbon releases.

Objectives for Improvement

The objectives of new requirements will be to help ensure that:

- release of substance thresholds, where appropriate, are included in regulation and/or technical guidance and used in conjunction with additional risk-informed criteria to help ensure the reporting of releases that may cause harm to people, property or the environment; and
- reporting requirements and associated timelines are commensurate with the consequence of the event on people, property and the environment and the probability of the event escalating.

Proposed Options

The CER is considering the following options to meet the objectives outlined above:

- lowering the volume threshold for notifying the CER of an LVP release within the definition of incident in the OPR; and
- changes to the reporting threshold specified within the definition of incident in the OPR regarding a gas or HVP hydrocarbon release.

Discussion Questions

h.10) What criteria are of greatest importance when assessing the potential risk associated with a release of LVP or HVP hydrocarbons? (e.g., product, location including proximity to a site of historic or cultural significance, volume, rate of release).

Response:

The criteria of greatest importance when assessing the potential risk associated with the release of LVP or HVP hydrocarbons is the proximity to people, and proximity to environmentally or culturally sensitive receptors.

The CER currently considers the unintended or uncontained release of LVP hydrocarbons in excess of 1.5 m³ to be reportable. Trans Mountain's experience is that it only has a preliminary volume estimate during the early stages in responding to a release, as the total volume is not known until clean up and possibly, remediation, are complete. As a result, pipeline companies typically need to provide ongoing volume estimate updates or reconcile earlier estimates in incident reports. In lieu of a constant estimate reconciliation exercise, Trans Mountain recommends the CER consider the introduction of ranges of volumes to be reported in the preliminary incident report, for example: 1.5 to 10 m³, and 10 to 100 m³, and greater than 100 m³. This approach allows the CER to have an indication of the magnitude of the release, without the company having to estimate volumes of released product at a time when the information is limited. Specific final volumes will be appropriately reported in the detailed incident report.

Subtopic 5: Reporting — High-Potential Near Misses

Based on learnings from implementing the OPR, the CER has identified an opportunity to improve its oversight of high-potential near misses.

Objective for Improvement

The objective of new requirements will be to help ensure that companies notify the CER of high-potential (consequence) incident near misses and learn from them.

Proposed Options

To meet the objective outlined above, the CER is considering a new OPR reporting requirement for companies to notify the CER of any high-potential incident near miss relating to the construction, operation, or abandonment of its pipeline.

Discussion Questions

- h.11) Provide examples of events relating to pipeline construction, operation, or abandonment that your company internally classifies as high-potential incident near misses.

Response:

For clarity, the CER may want to consider the term “high-potential near miss” in lieu of “high-potential incident near miss” otherwise a high-potential incident near miss is effectively an incident. Trans Mountain understands that a near miss does not involve a consequence but has the potential to result in irreversible harm or damage.

High-potential near misses would be an event that did not, but could have resulted in a fatality, or significant adverse and irreversible impact to an environmental feature or a heritage resource. Some examples of a high-potential near miss include:

- a worker’s safety harness found to be defective during a pre-work inspection, which may result in a potential fall;
- a newly installed piece of equipment lacks the appropriate hazard signage, leading to a near miss when an employee unknowingly operates it without the required safety precautions; and
- lack of environmental buffers and signage that could lead to working in and around sensitive environmental features.

- h.12) Describe industry best practices that could inform the creation of an OPR definition and description of “high-potential incident near miss”.

Response:

Trans Mountain is not aware of industry practices for high potential near misses.

- h.13) What are the benefits and costs for regulated companies if high-potential incident near miss reporting were to become an OPR regulatory reporting requirement?

Response:

Under the management system requirements of the OPR, companies have in place mechanisms that require investigation of high-potential near misses, and as a result, implement corrective measures that would be employed universally for similar situations. If the OPR were updated to require additional reporting of high-potential near misses this may have an inadvertent negative impact on safety culture. Industry has worked hard over the last 10 years to encourage employees and contractors to report near misses as opportunities to learn and improve without negative consequences. Making this a regulatory requirement and mandatory will discourage reporting and remove opportunities to learn from near misses.

Industry also works together to share learnings from their investigations to encourage safety improvements. A requirement to report high potential near misses may discourage sharing and therefore discourage learning. Further, this increases the reporting burden and costs to companies because of increased personnel hours spent tracking and reporting on circumstances, in exchange for little benefit associated with the additional reporting exercise.

The CER can undertake a compliance verification activity or audit to retrieve this information, as it has broad powers under the CER Act to do so at any time.

Subtopic 6: Reporting — Information Sharing

In the first phase of engagement on the OPR Review, the CER heard that industry could benefit from improved and more timely sharing of data-informed trends by the CER. This sharing would support organizational and industry-wide learning and continual improvement. In response to this feedback, the CER is interested in obtaining additional feedback in this regard to build effective implementation processes.

Objective for Improvement

The objective of new processes will be to help ensure that companies can learn from incidents and near misses, to prevent them in the future.

Proposed Option

To meet the objective outlined above, the CER is considering implementing processes to assist companies in their learning and continual improvement in this area.

Discussion Questions

h.14) Please describe what aggregated data sets and/or industry trend types would be most helpful in supporting these performance improvement objectives.

Response:

Comparison to industry performance is an important aspect in evaluating overall company performance and driving development of industry best practice and improvement. Examples of aggregated data sets/industry trends that would be helpful are:

- ROW releases, normalized by length of pipeline
- Facility releases
- Frequency of significant environmental incidents
- Non-compliances, normalized by number of inspections and length of pipeline

h.15) How might the definition of "incident" in the OPR be refined to support these performance objectives (i.e., organizational and industry-wide learning and continual improvement)?

Response:

Trans Mountain is committed to investigating incidents and high-potential near misses to understand the causal and contributing factors, and how those learnings can be employed to improve processes and the conditions for which activities are taking place to improve environmental and safety outcomes. The definition of incident in the OPR is clear and no further clarification or refinement is needed.

Subtopic 7: Reporting — Sites of Historic and Cultural Significance

Based on learnings from implementing the OPR the CER has identified an opportunity to improve its oversight relating to sites of historic or cultural significance.

Objective for Improvement

The objective of new requirement is to help ensure that companies are sensitive to, aware of, and protective of historic or cultural sites of significance to Indigenous Peoples.

Proposed Option

To meet the objective outlined above, the CER is considering adding a new reporting requirement in relation to damage to a site of historic or cultural significance, subject to confidentiality agreements signed by companies and Indigenous communities and any applicable provincial or territorial requirements.

Discussion Question

h.16) Are you aware of existing best practices in historic or cultural site hazard identification that would clarify definitions and this proposed reporting requirement?

Response:

Trans Mountain is of the opinion that impact to historic and cultural sites is adequately captured in the Event Reporting Guide requirement for significant adverse effect on the environment. Intent to include historic and cultural site impacts could be clarified further in the definition under this existing reporting requirement. Trans Mountain is not aware of any best practices regarding historic or cultural site hazard identification but offers that careful consideration should be given to reporting requirements for sensitive sites due to the protected nature of these sites and consultation with current governing agencies (provincial) is warranted.