

Release Report – Definitions for Pipeline Details Section

Incident Type

Use the following list of definitions to classify the type of incident.

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| GSPT Release | GSPT (gasket, seals, packing glands, or threaded fitting). Low-consequence release caused by a leakage at gaskets, seals, packing glands, or threaded fittings that can be stopped by mechanical adjustments (e.g., tightening of bolts or replacing seals) and does not indicate a pipeline integrity issue. |
| HDD Frac Out | Release of drilling mud during a frac out while conducting horizontal or directional drilling during a pipeline construction. |
| Hit | Damage to a pipeline sustained during ground disturbance activities that does not result in the release of a substance. |
| Installation Leak | Any reportable release from the equipment at an auxiliary site such as a compressor, pumping, meter station, etc., that is licensed as an installation on the pipeline licence and the release was not from a licensed pipeline. A release on the pipeline outside of the station perimeter valves (last valve) is treated like a regular reportable incident on the pipeline. |
| Integrity Test Failure | A failure that occurs during a leak or stand-up test conducted on an in-service or previously in-service pipeline to help determine if a pipeline can hold pressure. Also, use this pipe damage type when the line fails during discontinuation or abandonment activities. |
| Leak | The release of a substance from a pipeline that does not immediately impair the operation of the pipeline. |
| Non-Pipeline Release | An impact to the environment occurring on the ROW or associated with the construction of the pipeline not involving contact with or a release from the pipeline (e.g., spill of unknown origin, silt run off into a water body). |
| Pressure Test Failure | A failure during the qualification of new pipe construction, during the requalification of a repaired or previously-in-service pipeline, or qualification for a MOP (maximum operating pressure) increase in accordance with CSA Z662 pressure testing requirements. |
| Rupture | The release of a substance from a pipeline that immediately impairs the operation of the pipeline. |

Incident Cause

Use the following list of definitions to classify the direct cause of the incident.

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| Boring Frac Out | <p>Release of drilling mud during frac out while conducting horizontal or directional drilling during pipeline construction.</p> <p>Only use with incident type “HDD Frac Out.”</p> |
| Construction Deficiency | <p>A failure caused by improper construction practices. Examples include damage to coating or pipe caused during handling or bending, improper installation of river/swamp weights, improper ditch preparation, improper backfill, inadequate support, physical damage, settlement at risers or supports, improper joint alignment, and improper management of thermal expansion issues causing pipeline failure (i.e., pipeline operating temperatures were not considered in the design of the pipeline resulting in failure).</p> <p>Do not use for pre-existing damage or dents found that did not contribute to the failure. If failure is corrosion due to damage during construction, record as appropriate corrosion failure.</p> |
| Corrosion Internal | <p>A failure caused predominantly by corrosion on the interior of the pipe, valve, fitting, or flange.</p> |
| Corrosion External | <p>A failure caused predominantly by corrosion occurring on the exterior of the pipe, valve, fitting, or flange. The corrosion may be on uncoated steel or coated steel that has had the coating damaged.</p> |
| Damage By Other (Contact Damage) | <p>Physical damage (hit, leak, or rupture) to coating or pipe caused during activities related to a ground disturbance. See definition of “contact damage” in <i>Pipeline Rules</i>.</p> |
| Earth Movement | <p>A failure due to external forces applied to the pipeline by earth movement, either a result of natural events or human activity. Examples are frost heaves, slope movement, flood, earthslide, subsidence, washouts, etc.</p> |
| Girth Weld Failure | <p>A failure that occurs through a leak or fracture at a girth weld or in the heat-affected zone of a girth weld and that is not caused by corrosion.</p> |

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| Installation Leak | <p>Any release from the equipment at an auxiliary site such as a compressor, pumping, meter station, etc., that is licensed as an installation on the pipeline licence and where the release was not from the licensed pipeline. Failure on the pipeline outside of the station perimeter valves (last valve) is a pipeline failure.</p> <p>Only use with incident type “Installation Leak.”</p> |
| Mechanical Pipe Damage | <p>A failure caused by damage to above-surface pipelines, risers, and piping that is not related to a ground disturbance and which results in a release of product.</p> |
| Mechanical Joint Failure | <p>A failure of mechanical interference joints (e.g., Thru-Kote Welded, Crimp Kote, Sure Lok, Pronto Lock, Zap-Lok, Twin Lok, etc.) on metallic pipelines or at mechanical couplings (including crimped metallic connections on spoolable composite pipe) on nonmetallic pipelines.</p> |
| Miscellaneous | <p>A failure that does not fall under other defined failure causes. May include pipeline erosion from external jetting action from nearby pipeline failures, lightning strikes, vandalism, damages caused by wildlife or livestock, tight-fit liner failures that result in a release to the environment through the vent.</p> |
| Miscellaneous Joint Failure | <p>A failure on a butt fusion, electrofusion, or socket fusion on plastic pipe; bonded or solvent-welded joints on PVC pipe; high-energy fusion on aluminum pipe; or threaded or bonded joints on fibreglass pipe.</p> |
| Non-Pipeline Release | <p>An impact to the environment occurring on the ROW or associated with the construction of the pipeline not involving contact with or a release from the pipeline (e.g., spill of unknown origin, silt run off on a newly developed pipeline right of way into a water body causing turbidity).</p> <p>Only use with incident type “Non-Pipeline Release.”</p> |
| Operator Error | <p>A failure caused by operator error. Examples include an operator improperly closing a valve, operating against closed valves, operating with missing components, or not following operating procedure for temperature changes. Generally accepted to be human error. Does not include incidents related to planned ground disturbance, mechanical pipe damage, or pressure test failures.</p> |

Overpressure Failure A failure due to pressure beyond designed limits. Situations that may result in overpressure include frozen lines, waxed-off lines, pig stuck in line, hydrate plugs, lack of overpressure control or overpressure protection device failure, or temperature increase of a shut-in line causing failure.

Failures as a result of reduced wall thickness due to corrosion are to be recorded as the appropriate corrosion failure. Leaks from frozen aboveground valves should be recorded as “Valve or Fitting Failure.”

Pipe Body Failure A failure that occurs within the pipe body due to material flaws, defects, or sensitivity to the operating environment. Examples include stress corrosion cracking, sulphide stress cracking, hydrogen-induced cracking, brittle cracks, running cracks, fatigue cracking, cyclic stress damage, laminations, or separations.

Seam Rupture A failure due to a leak or fracture in the long-seam weld or spiral weld on spiral pipe. Seam leaks or fractures are rarely due to corrosion and are mechanical failures of a defective manufacture weld.

If failure is clearly a corrosion failure only, record as appropriate corrosion failure.

Unknown A failure where the cause cannot be determined because the pipeline cannot be exposed, recovered, or examined.

Only use when the cause is truly unknown, not when the cause is temporarily unknown. A review of past incidents on the line or licence must be done to pick a most likely failure type other than defaulting to “unknown.”

Valve or Fitting Failure A release associated with packing, gaskets, flanges, fittings, or pigging facility components or failures in the valve body.

If solely due to corrosion, record as appropriate corrosion failure. Do not use this as the failure cause for a pressure test failure.