

## INCIDENT DEFINITIONS AND CATEGORIES

Pipeline incidents are defined by federal law as the following events:

(1) An event that involves a release of gas from a pipeline, or of liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG facility, and that results in one or more of the following consequences:

- (i) A death, or personal injury necessitating in-patient hospitalization;
- (ii) Estimated property damage of \$50,000 or more, including loss to the operator and others, or both, but excluding cost of gas lost;
- (iii) Unintentional estimated gas loss of three million cubic feet or more;

(2) An event that results in an emergency shutdown of an LNG facility. Activation of an emergency shutdown system for reasons other than an actual emergency does not constitute an incident.

(3) An event that is significant, in the judgment of the operator, even though it did not meet the criteria of paragraphs (1) or (2) of this definition.

Incidents may fall into the following categories:

- **Corrosion** – A natural process that can cause a gradual reduction in the wall thickness of a pipe when the surface of a pipe comes in contact with the environment. This could be on the internal or external surface of a pipe. We use coatings, rigorous fabrication, installation and inspection standards, and cathodic protection systems to limit the risk of corrosion.
- **Material or Weld Failure** – Pipe produced using early steel manufacturing and early welding techniques are susceptible to this type of failure. This is caused by defects that remained in the pipe material during the manufacture and welding of the pipe. Newer, improved processes have reduced this potential and improved the quality of the steel pipe manufacturing and welding process.
- **Natural Force Damage** (Floods, etc.) – A result of naturally occurring events. These events include a release or failure resulting from earth movement, earthquakes, landslides, subsidence, lightning, heavy rains/floods, washouts, flotation, mudslides, scouring, temperature, frost heave, frozen components, high winds, or similar natural causes.
- **Excavation Damage** – Damage to the external coating of a pipe or dents, scrapes, cuts or punctures caused by excavation (digging, grading, trenching, boring, etc). Excavation damage can cause immediate failure due to contact with the excavation equipment and the pipe, or a delayed failure or increased potential for future leaks. Those digging in the U.S. are required to call 811 for a free service to locate underground utilities. There have also been significant improvements in markings to warn about digging in certain areas.

- **Other Outside Force Damage** – An incident that is caused by outside parties or forces other than through excavation or naturally occurring events. This can include pipe failures as a result of vehicle or equipment contact, vandalism, sabotage or terrorism, and damage caused by accidents or fires from nearby businesses.
- **Equipment Failure** – A failure of a pipeline component or device other than the pipeline. This usually results in a release that is contained on company property, typically not resulting in injury to the public.
- **Incorrect Operation** – Includes a release or failure resulting from incorrect actions by company and contract personnel. Examples of incorrect operations that may lead to a release including inadvertent actions like leaving a wrong valve open, performing routine maintenance, reacting to a condition on the pipeline, etc. Incorrect operations cause a relatively small percentage of overall pipeline failures.
- **All Other Causes**- Includes incidents whose cause is unknown, or where investigation into the cause has been exhausted and the final judgment as to the cause remains unknown, or where a cause has been determined which does not fit into any of the main cause categories listed above.