PIPELINE QUESTIONS ANSWERED:

PIPELINE SAFETY

How do pipeline operators work proactively to prevent pipeline incidents?

Pipeline operators use proactive inspections and preventative maintenance to find and fix issues to keep the pipe safe.

Proactive Pipeline Inspections

Pipeline operators proactively inspect their pipelines on regular schedules to look for any potential issues and ensure the pipe remains safe. Operators use diagnostic tools called “smart pigs” that travel inside pipelines scanning the walls with technology similar to an ultrasound or MRI found in a doctor’s office. Hi-tech inspection tools and regular inspections allow pipeline operators to identify and guard against pipe issues before they become a problem.

Pipeline inspection tools travel inside the pipe scanning with technology like an MRI or ultrasound.

Preventative Pipeline Maintenance

Pipeline operators perform preventative maintenance on their pipes to address potential issues before they become a problem. For example, an inspection may tell a pipeline operator a small amount of corrosion is starting to form on the pipe. It does not yet pose a problem for the pipe, but needs maintenance to remove and keep the pipe in safe condition.

The pipeline operator will go out to the pipe segment with the identified issue and perform the appropriate maintenance, such as reapplying protective coating, installing a patch or sleeve around the pipe or replacing that section of pipe.

Preventative maintenance allows pipeline operators to keep their pipelines operating safely.

24/7 Pipeline Monitoring

Pipeline operators monitor their pipelines from a central control center 24 hours a day, 7 days a week, 365 days a year. Specially trained controllers keep a watchful eye over systems monitoring pipeline pressure, flow and volume. Operator personnel patrol along the pipeline route and personnel in airplanes or helicopters travel overhead the length of the pipeline on a regular schedule looking for signs of leaks.

An assembled pipeline is lowered into place before the soil is replaced.

Construction Quality Inspections

Welds at the connection of pipe segments along the pipeline must be inspected for quality. An X-ray or ultrasonic scan ensures there are no defects in the connection.

Inspection technician scanning a weld to ensure a defect free connection.

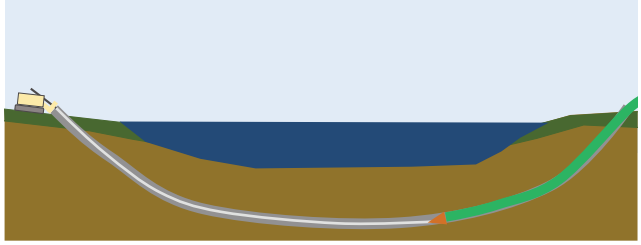
After passing inspection, weld joints receive the same anti-corrosion protective coating as the pipe body received at the pipe mill. The pipeline receives a further protection through a slight electrical current system, called cathodic protection, and installed along with the pipe that wards away corrosion.

Pre-Operation Testing

An assembled pipeline must still undergo pre-operational testing before it is allowed to go into service. Operators pump water into the pipeline and hold it at high pressure to demonstrate there are no leaks in the pipe or its weld joints. Any construction issues are repaired before the pipe is operational.

Directional Drilling to Avoid Waterbodies

Newly constructed pipelines avoid contact with major waterbodies by tunneling deep beneath them, Before a pipeline reaches a waterbody shoreline, horizontal directional drilling (HDD) can burrow the pipeline 100’ or more beneath the bottom of a waterbody, never coming into contact or close to the water itself.



New pipelines are drilled deep underneath major waterbodies to avoid contact with water resources.

Construction Site Remediation

After the pipeline is assembled, laid in its trench, inspected and tested, the pipeline is covered and topsoil replaced. In agricultural areas, land over a pipe can return to normal farming.

Before and after a pipeline construction site is remediated.