ENGINEERING UNIT – FLOWLINE INTEGRITY

Flowline Integrity refers to the design, construction, operation, maintenance and repair parameters necessary to make a flowline compatible with the fluids being transported, allow it to withstand anticipated operating conditions, and prevent failure. Flowline regulations are contained in the Colorado Oil and Gas Conservation Commission’s (COGCC) 1100 series rules. A COGCC Operator Guidance document regarding compliance with rules 1101 and 1102 is available on the COGCC website.

In many cases flowlines are considered the safest method of transporting water, oil and gas. Flowlines are those pipelines that start at the wellhead and move produced fluids to well site production facilities, remote production facilities, or that connect to larger transportation pipelines regulated by other government entities.

Integrity Group Responsibilities
The COGCC Integrity Group has both engineering and inspection personnel to ensure flowlines meet Colorado regulations.

Integrity Inspections
The Integrity Group performs field inspections during flowline construction, repair, and abandonment. During these inspections flowline pressure test and construction methods are observed for compliance with COGCC rules. The Integrity Inspectors and/or Engineering staff complete a field inspection report, which is electronically sent to the operator after the inspection. The report may require an operator to take actions to correct instances of non-compliance and may refer more serious alleged violations to the Hearings Unit for enforcement.

Flowline Audit
The Integrity Group audits operator’s flowline systems for regulatory compliance. Audits are prioritized based on a data-driven flowline ranking model. Flowline Audits help ensure operators take reasonable precautions to prevent damage to flowlines, prevent failures that cause spills and releases, identify systemic flowline issues, and identify and address instances of non-compliance. COGCC reviews operator’s flowline pressure testing records as part of the audit. Flowline spill reports and maintenance programs are also discussed with the operator, to ensure systems are in place to prevent flowline releases.
Flowline-Related Spill Monitoring

The Integrity Group is notified of flowline spills and interfaces with COGCC environmental protection specialists and operators throughout the state to determine the root cause of the release and the mitigations used to prevent future releases.

Flowline Abandonment

Flowlines that are abandoned are depressurized, purged of fluids, cut-off and sealed at the ends. Notification of flowline abandonment is filed with the Commission and the local governments.

One Call

The Utility Notification Center of Colorado and the COGCC are working together to ensure that all operators in Colorado with pipelines are members of One Call. Third party damage to pipelines by excavators is recognized as one of the leading causes of pipeline failures.

Other government organizations

The Integrity Group coordinates and meets with other government agencies involved with pipelines, including the Colorado Public Utilities Commission (“PUC”), Colorado Department of Public Health and Environment (“CDPHE”), and the Federal Government’s Department of Transportation Pipeline and Hazardous Materials Safety Administration (“PHMSA”), to discuss safe operation of pipelines in Colorado and ensure all Colorado pipelines are compliant with regulations.