

## Managing the Integrity of Older Pipelines

Pipeline safety is a primary concern, and INGAA members go to great lengths to ensure safe operation, both for new pipelines and those built prior to federal safety regulations introduced in 1970.

Even before the 1970 pipeline safety regulations were established, natural gas transmission pipelines were designed, built and operated according to consensus engineering standards and specifications developed to ensure safe pipeline operation over long periods of time.

Since the beginning of the pipeline industry, the first step of pipeline safety occurs at the steel mill where pipe is tested and inspected before it is shipped.

### Pipeline Fitness for Service

The age of a pipeline is but one factor that can determine its integrity. The materials and construction methods used, the operating environment and proper maintenance are larger factors than age in whether the pipeline is fit for service.

Advances in technology and maintenance practices have further improved the ability to prevent, detect and repair or replace a degraded piece of pipe.

Although rare, it is possible that an older pipeline could have latent flaws in the pipe. These defects are normally stable and don't lead to pipeline integrity issues. However, certain adverse operating conditions can affect normally stable flaws.

### Current Regulations

Current regulations and engineering standards – like the American Society of Mechanical Engineers'

Standard B31.8S – establish risk assessment practices for identifying pipelines that could possibly be susceptible to material and construction related integrity concerns. The regulations also provide guidance for proper management and operation of these pipelines.

### Integrity Inspecting and Testing

All pipelines in heavily populated areas require periodic integrity inspection and tests. For any other pipelines identified by the operator as a possible risk, integrity inspections or testing are performed, which can include pressure testing at levels well above normal operating conditions.

Regardless of whether the pipeline is old or new, if an integrity inspection identifies any type of problem – such as a corrosion issue, flawed weld, damage caused by digging, etc. – the pipe is repaired or replaced and prioritized for reassessment.

### Key Points

- Pipeline safety is a core value of our industry.
- The first step of pipeline safety is testing during manufacturing.
- Well-constructed, maintained and tested pipeline can last for many decades.
- Current regulations and engineering establish risk assessment practices.
- Advances in technology and maintenance practices have further improved the ability to prevent, detect and repair or replace a flawed pipe.
- The materials and construction methods used, the operating environment and proper maintenance are larger factors than age in whether the pipeline is fit for service.
- If an inspection identifies any type of problem, the pipe is repaired or replaced.