

on Fabricated Gate and Compressor Station



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Per the Pipeline Safety Act of 2002 and subsequent Integrity Management rules, regulation mandates that gas transmission pipelines have baseline assessments of all High Consequence Areas completed by December 17, 2012, using one of the following assessment methodologies:

1. Inline inspection tool (ILI tools) or tools capable of detecting corrosion, and any other threats to which the covered segment is susceptible,
2. Pressure tests conducted in accordance with subpart J of CFR 192,
3. Direct assessment to address each corrosion threat through its respective program: External Corrosion Direct Assessment (ECDA), Internal Corrosion Direct Assessment (ICDA), and Stress Corrosion Cracking Direct Assessment (SCCDA),
4. Other technology that an operator demonstrates can provide an equivalent understanding of the condition of the line pipe.

PHMSA response to FAQ #84 clarifies that integrity assessment provisions of the rule apply to all line pipe, including pipe that may be in the boundaries of a facility (compressor stations, metering stations, etc.). These stations can prove very difficult to assess using the traditional accepted assessment methodologies as the segments can consist of several short runs with tight bends and various tie-in and connection points limiting the ability to inspect using ILI tools or pressure testing.

In addition, these facilities can pose some significant challenges to the use of Direct Assessment, a programmatic approach based on engineering fundamentals to assess pipeline integrity consisting of the following four-steps:

- Pre-Assessment
- Indirect Inspection
- Direct Examination
- Post Assessment

The data collection and analysis process for facilities is typically much more challenging, as stations can have multiple pipelines varying in design

Above Grade Piping for Direct Examination ————
Buried Piping for Direct Examinations ————

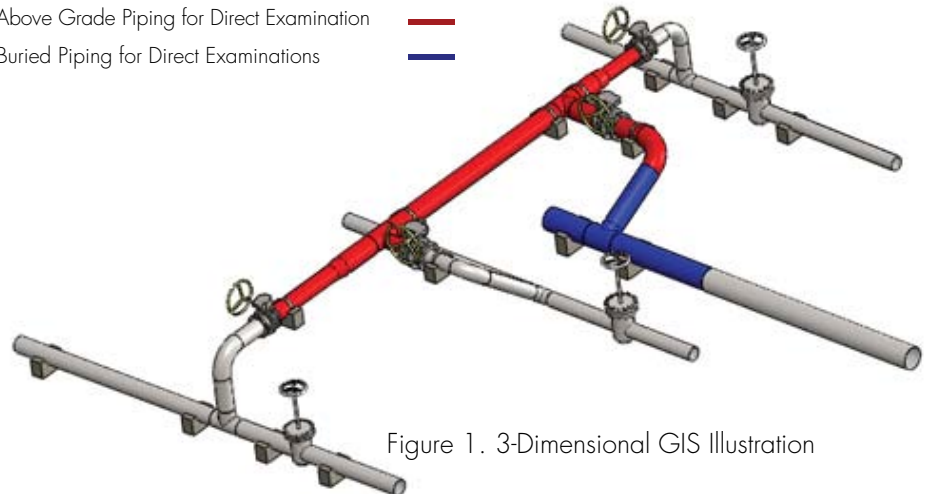


Figure 1. 3-Dimensional GIS Illustration

characteristics, operating parameters, and varying degrees of corrosion susceptibility throughout the facility. Drawings may not be accurate and data, if documented, is likely to be spread across multiple and disparate sources. Additionally, traditional indirect inspection tools may have limited effectiveness and excavations can be complicated by unusual depth and multiple pipelines in the dig region.

To help address these challenges, Structural Integrity designed and implemented an advanced Direct Assessment program incorporating unique tools to enable assessment of these difficult to assess segments.

PRE-ASSESSMENT

Pre-assessment involves collecting information regarding the design factors, construction, operation, and other historical

