

Pipeline Integrity Assessment

The accurate identification and evaluation of a pipeline's material properties and anomalies using non-destructive testing (NDT/NDE), advanced NDT and other specialist techniques plays a significant part in any integrity-management programme (IMP). The information and data collected is used to assist the owner/operator in avoiding unnecessary repairs and in evaluating anomalies characterised by ILI tool runs.



THE Applus+ SOLUTION

Applus+'s pipeline integrity assessment (PIA) services offer the on-site evaluation of pipeline anomalies in support of direct-assessment (DA) programmes, in-line inspection (ILI) validation programmes and class-change programmes undertaken by pipeline owners and operators. They involve specially developed inspection techniques, technologies and technician training which are designed specifically for thin-wall pipeline applications.

The assurance of competency is key to a successful pipeline assessment. The practice of NDE requires certification that is controlled and governed by several managing entities. Applus+ ensures its competency in pipeline integrity assessment through a progressive and standardised training and certification programme. Much like the ASNT-TC-1A certification programme, the Applus+ programme is monitored to ensure a combination of in-depth theoretical training and field experience, followed by a rigorous written and practical examination.

The chief benefit of partnering with Applus+ for a pipeline integrity assessment is the extensive resources we can put at our clients' disposal. Whatever the need of the client, be it code interpretation and compliance, inspection-data management or critical-feature assessment in the field using advanced NDT techniques, Applus+ is equipped with all the necessary resources, including:

- Applus+ InSite – a field-reporting and data-management system
- Engineering review and assessment capabilities
- NDT3D IWEX – for the assessment of seam and pipe-body anomalies
- 3D laser mapping – for external corrosion and ILI tool-data pattern matching
- Material verification testing expertise
- DTI Trekscan – for difficult-to-inspect pipelines

Target customers

Applus+ offers comprehensive, NDE-based direct examinations for both transmission pipeline integrity management and distribution pipeline integrity management programmes.

For projects related to:

- ILI validation and remediation – seam weld, MFL and deformation ILI tool assessments
- Direct assessment (ECDA, ICDA and SCCDA) direct examination
- Pipeline and corrosion reconditioning
- Material verification programmes

Pipeline anomaly assessments with advanced NDE:

- UT shear wave anomaly evaluation
- Phased array UT anomaly evaluation
- Encoded TOFD and PAUT seam-weld scanning
- IWEX Weld and SCC feature evaluation
- Automated UT for internal-corrosion mapping
- Automated and manual laser mapping of external corrosion

Key customer benefits

Applus+ has pioneered the development of pipeline-integrity solutions over the decades, offering a comprehensive suite of services to complement owners' and operators' integrity programmes.

With over 20 years' experience, Applus+ has developed not only a comprehensive solution using a variety of methods and technologies, but also the best training programme to develop well-qualified pipeline integrity assessment technicians.