

Pipeline Integrity Management – Hydrostatic Testing



With millions of miles of pipeline in service in the United States, management of a pipeline's integrity is increasingly important to conform to government regulations and extend the life of the asset. Whether it is the initial hydrostatic test to establish the operating pressures as designed, or the test is used as part of an integrity assessment; the professionals at EN Engineering provide expertise in every phase of the project. From the crucial project kickoff and initial planning through project close-out and reporting, EN Engineering assists operators with the life cycle of the hydrostatic test and performs specific tasks including:

General activities

- Risk modeling and threat assessments
- Assess the feasibility of hydrostatic testing
- Determine physical limits of hydrostatic test sections
- Develop a plan and schedule to remove the pipeline segment from service, hydrostatic testing, drying, and returning the pipeline section to service
- Project documentation, reporting, and close-out

Design and engineering

- Determine hydrostatic test pressure limits to comply with code and integrity plan requirements
- Evaluate pipe characteristics, grade, and elevation changes to determine optimal hydrostatic test section length to satisfy strength testing requirements
- Define isolation locations and procedures to take the line out of service

Permitting

- Review requirements for various watersheds and/or municipal regulations to source water
- Identify dewater locations and develop a dewatering plan based upon local and state requirements
- Dewatering plans may include de-chlorinization, filtering, testing for allowable levels of contaminants, dewater structures, aeration requirements, etc.

Bidding and construction activities

- Prepare drawing(s) and bid specification package
- Provide construction management of hydrostatic test operations
- Verify that federal, state and local requirements are met in regards to testing, water sourcing and water disposal