

Pre-Regulation Pipe Records and Maximum Allowable Operating Pressure

In advance of the passage of the 2011 Federal reauthorization of the pipeline safety act (PSA), Interstate Natural Gas Association of America (INGAA) members commissioned an executive level workgroup focused on records and Maximum Allowable Operating Pressures (MAOP) for pipelines built prior to the 1970 Department of Transportation regulations. The purpose of the workgroup is to address concerns defined by the National Transportation Board, to address the 2011 Pipeline and Hazardous Materials Administration Safety bulletin, and to support the MAOP validation as required by the PSA.

- INGAA members began to search their records and committed to develop and apply a process to verify records and revalidate the MAOP for pipelines within High Consequence Areas (HCAs).
- INGAA members are acting according to the requirements of the PSA to provide records of pressure testing performed on pre-regulation pipes. To address the NTSB recommendation, records must be:
 - Traceable – the record can be linked to a facility and traced back to the origin of the data.
 - Verifiable – the record can be confirmed by supporting documentation, credible statements that have been recorded, or field verification through inspection and testing.
 - Complete – the record was complete according to the requirements in place at the time the data was created or it provides sufficient information to determine or confirm a parameter.
- INGAA members are working to meet PSA-prescribed MAOP and testing requirements. INGAA has prioritized this initiative based on three risk classifications:
 - **High-priority pipe or HCAs:** Will be pressure tested by 2020 if records or pressure tests are insufficient. INGAA is working with technology providers and research organizations to expand ILI capabilities to evaluate material and construction threats in lieu of hydrostatic pressure testing for high priority pipe segments.
 - **Medium priority or Class 1 and 2 areas outside HCAs with a known history of long seam issues and Class 3:** will be pressure tested or inspected via advanced ILI by 2030.
 - **Low priority or Class 1 and 2 outside of HCAs with no history of long-seam issues;** may continue to operate under current regulations and standards.
- INGAA members defined a process to verify pipeline records and revalidate MAOP of pre-regulation pipelines (built prior to March 12, 1970). The plan included the following action items:
 - Prioritize risk levels of segments of pipelines
 - Establish guidelines
 - Define verification and mitigation procedures
 - Ensure documents are traceable, verifiable and complete
 - Manage changes prescribed
 - Employ technology to ensure traceability and transparency of records
 - Identify segments with record gaps – Apply Fitness for Service Process

Records and related data are essential for effective risk assessment. Determining risk factors include:

- Pipe properties – seam type, install date, size, material strength
- Environmental factors – activity, stress levels, outside forces
- Operating characteristics – pressure, gas quality, cycles, etc.
- Testing and Assessment history – qualifications tests, integrity assessments, etc.