

OPTIMIZING PIPELINE PERFORMANCE: Engineering Critical Assessments for Maximum Allowable Operating Pressure Reconfirmation

Engineering Critical Assessments (ECAs) enhance pipeline safety and reliability, promoting a maximum return on investment. Dynamic Risk adopts an effective, performance-based approach to applying ECAs, providing a strategic method for optimizing the yield from an operator's available resources.

SERVICE OFFERINGS

- **ECA Approach Development** – Helps build the necessary technical foundations and pathways for a well-structured ECA framework to demonstrate safe and reliable pipeline operations.
- **Data Source Review and Integration** – Streamlines the incorporation of relevant data into the ECA process. This service serves to develop effective integration strategies by conducting a comprehensive review of all data sources.
- **Quality Control and Documentation** – Integrates rigorous quality control (QC) measures into the ECA process. This process documents data sources, applied methodologies, and verification steps, facilitating reviews and audits to promote transparency.
- **Integrity Threat Assessment** – Employs integrity assessment principles to assess and address potential risks, promoting regulatory compliance. Dynamic Risk's ECA methodology aligns with periodic assessment and continual evaluation requirements specified in §192.710 and §192.937, respectively.
- **Fitness-for-Service Demonstration** – Assesses the condition of a pipeline and its capacity to meet regulatory requirements. This service confirms the operational suitability of the pipeline in alignment with MAOP-R as outlined in §192.632.
- **Reliability and Deterministic Analysis** – Assesses pipeline performance and ensures the integrity of any results derived from the ECA process. Dynamic Risk utilizes both reliability (probabilistic) analysis and deterministic analysis, as appropriate.

The dynamic landscape of the U.S. pipeline regulatory structure presents opportunities for enhanced safety and reliability performance. ECAs now enable operators to validate and reconfirm the Maximum Allowable Operating Pressure (MAOP), offering an alternative to pipeline replacement or re-testing.

Dynamic Risk's skilled team merges advanced analysis techniques, resilient data integration tools, and leading industry practices to provide thorough and accurate ECAs for MAOP reconfirmation. Armed with an in-depth comprehension of regulatory mandates and a dedication to excellence, we furnish our clients with dependable and actionable insights. Our ultimate objective is to enhance the performance and safety of their pipeline networks, upholding operational excellence and regulatory compliance.



BENEFITS

- Operators can achieve regulatory compliance, mitigating the risk of legal implications and financial penalties.
- Operators can maximize operational efficiency and effectiveness by focusing resources on efforts that demonstrably enhance safety and reliability performance. This process of improving resource allocation leads to greater operational outcomes.
- Operators can avoid substantial costs and impacts associated with unnecessary pipeline replacement and pressure reductions — along with pressure testing normally required to establish operational fitness.
- Operators can more easily identify areas of concern, allowing them to take proactive measures that ensure the safety of personnel, the environment, and surrounding communities.
- Operators can make better-informed decisions regarding maintenance, repairs, or replacements. The insights provided by thorough evaluations help operators prioritize resources and investments, and minimize the likelihood of unexpected failures or operational disruptions.
- Operators can develop consistent programs and technical building blocks for their work. These elements can then be integrated into solutions that address more complex compliance and technical circumstances, streamlining operations and improving scalability.

ABOUT DYNAMIC RISK

Dynamic Risk is a leading global technology service provider helping ensure the safe and efficient delivery of energy resources. Since 1996, Dynamic Risk has revolutionized pipeline integrity management by combining in-depth engineering expertise and advanced software applications, now leveraging predictive analytics to uncover actionable insights for risk-informed decision-making. Dynamic Risk partners with operators across the Transmission, Midstream, Upstream, and Gas Utility industries to avoid pipeline failures through complete asset lifecycle risk management, and enables clients to achieve optimal business, safety, and environmental performance while meeting compliance objectives in pursuit of the goal of zero incidents.

Dynamic Risk is part of Previa, a fast-growing, innovative, and private industrial technology group focused on advanced diagnostic technologies to monitor the world's infrastructure health. The Group serves asset owners, large engineering firms, and service companies globally in markets such as Aerospace, Civil Infrastructure, Energy, Mining, Power Generation, and Rail. Via sensors, hardware, robotics, and software, Previa makes a safe and sustainable future possible, by pushing the limits of diagnostic technologies that preserve the integrity of our world's critical infrastructure and assets. More information can be found on the company's website: www.previa.com

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