

PROCESS SAFETY

Mechanical Integrity & Inspection

Founded in 1974, Trinity Consultants helps organizations overcome complex, mission-critical challenges in EHS, engineering, and science through expertise in consulting, technology, training, and staffing. We support clients in geographies worldwide and across a broad range of sectors including industrial, energy, manufacturing, mining, life sciences, and commercial/institutional.

Trinity-acquired company Provenance Consulting supports all aspects of implementing and executing a fixed equipment Mechanical Integrity (MI) and Inspection program.

Our philosophy and approach ensure that our program implementations are comprehensive, accurate, and of the highest quality. Our emphasis is on long-term projects and client partnerships, rather than short-term (turnaround-type) staffing.

A complete MI program should account for the entire equipment lifecycle, and each stage of the equipment lifecycle requires specific activities that should be performed from a MI perspective. This ensures the safe operation and reliability of the equipment.

Our Services

► Pre-Operation

- Equipment Design Validation
- Vendor Shop Audits and Quality Assurance Inspection during Fabrication
- Field Inspection to Confirm Proper Installation and Document Initial (Baseline) Equipment Condition

► During Operation

- Inspection Software Implementation and Maintenance, using a Life-based or Risk-based (RBI) Approach
- Piping Isometric and Equipment Inspection Drawing Generation and Maintenance
- Inspection Planning and Analysis
- Internal/External API Inspections and Nondestructive Examination (NDE)
- Analysis of Inspection Findings (including Fitness for Service Evaluations per API 579), Corrective Action Identification and Modification of Inspection Plans

► Modification / Decommission

- Leverage Inspection History to Predict Retirement Dates and Confirm Suitability for Service
- Generate Repair Plans to Correct Equipment Deficiencies
- Generate or Validate Alteration and Rerate Plans and Associated Design Calculations

MI Program Development & Support

Additionally, we have extensive experience in generating policies, procedures, and work processes related to MI and Inspection, as well as defining and reporting Key Performance Indicators (KPIs) and metrics.

We perform program assessments and gap analyses of existing MI programs, and recommended/implemented improvements identified.

Our team has implemented and maintained MI/Inspection programs for a large number of upstream, midstream, and downstream facilities, along with chemical and petrochemical plants.

Provenance does not have a vested interest in any particular IDMS or RBI software program, allowing us to help clients select the most appropriate and cost effective tool for inspection program management.

Trinity and Provenance Can Help

For more information about how Trinity and Provenance can help your organization, please contact Provenance Consulting at 806.273.5100 or 281.206.7079.

ISO 9001:2015 certified at our corporate office in Dallas, Texas