

WKM Consultancy has worked with pipeline engineers, maintenance personnel, operators, and support staff to create risk models that capture company risk beliefs and assist management in making risk-based resource allocation decisions. Our consultants can work within your existing integrity/risk/geographic information system (GIS) data management structure to create risk management applications that meet department and enterprise-wide requirements. Our clients are international and domestic. They represent a wide range of interests: industry, government, and even groups that are concerned about pipeline safety. Some of the largest oil and gas companies in the world entrust WKM Consultancy with enhancing their integrity and risk management systems.

We have engineered and evaluated all types of pipelines:

- Liquids
- Gas
- Water
- Gas gathering
- Gas distribution
- Water distribution

Below are some of our past projects.

Risk/Integrity Assessments

- Pre-construction qualitative and quantitative risk assessments
- Pre-conversion (pipeline change in service) qualitative and quantitative risk assessments and risk management expert witness testimony
- Expert witness testimony
- Custom hazardous liquids station facilities relative risk assessment model
- Custom index-based risk assessment model
- Semi-quantitative hazards analysis
- Relative risk algorithm development
- Risk model field data gathering
- In-line inspection and hydrostatic testing integrity assessments
- Relative risk assessments
- 'What-if' threat scenarios and release hazard analyses
- Relative risk assessment

Risk/Integrity Management Programs

- Integrity management program framework and high consequence area (HCA) segment identification
- Risk assessment programs
- Risk management programs
- Risk-based budget

Partial Project List

- Relative risk assessments to create a prioritized resource allocation risk management report
- Risk-based resource allocation model and severity matrix
- Resource allocation tool
- Capital project economic evaluation
- Commercial software risk management pilot
- Relative and absolute risk resource allocation model

Regulatory Compliance

- Class location change alternative justifications
- United States Department of Transportation (US DOT) Risk Management Demonstration Project
- Multiple US DOT and state regulatory compliance evaluations
- Multiple tank farm facility compliance evaluations
- Facility compliance improvement cost analysis
- US DOT/Office of Pipeline Safety (OPS) safety inspection representative
- Multi-disciplined US Office of Occupational Safety and Health Administration (OSHA) *Process Safety Management of Highly Hazardous Chemicals, Explosives and Blasting Agents* standard 29 CFR 1910.119 (PSM) compliance team
- Operations, maintenance, and emergency procedure manuals
- Classroom training sessions for pipeline personnel
- Pipeline training lesson plans and programs
- US DOT and Canadian National Energy Board (NEB) risk management training sessions
- Relative risk assessment, algorithm sensitivity analysis, and risk graphics
- Acquisition due diligence integrity and compliance assessment
- See also integrity management programs

Pipeline Construction

Complete Project management of major pipeline construction

- Route selection
- Oversight of right of way (ROW) acquisition
- Design
- Construction
- In-line Inspections (ILI)
- Commissioning

Integrity Management Programs (IMPs)

- Developed complete gas & liquid IMPs
- Participated in government regulatory audits
- Audited existing plans
- Integrated existing company procedures into the IMP

WKM Consultancy

Partial Project List

- Developed new procedures to support IMP

Special Projects

- Report on the possible applications of new technology in the pipeline industry
- Focus Group organization and involvement in the discussion
- Evaluation of leak detection capabilities
- Need for emergency flow restriction (EFR) devices
- Custom software development
- Dispersion modeling
- Specialized pipeline engineering studies
- Patent Acquisitions

Training

- Workshops
 - Risk management workshops (<http://www.clarion.org/>)
 - Specialized training
- Books (<http://www.pipelinerrisk.com/WKMConsultancy/3rded.html>)
- Software (<http://www.pipelinerrisk.com/WKMConsultancy/software.html>)