

## Integrity Solutions - Who Are We?

- A collaborative group of specialists that leverages many years of oil and gas industry experience to create innovative solutions customized for each client's unique pipeline system conditions.
- Our consultants have provided critical assistance to dozens of small to large pipeline facility operators faced with the challenges of complying with U.S. DOT pipeline regulations, including all Integrity Management Program requirements.
- Integrity Solutions can provide turnkey pipeline facility integrity management services, or help identify and fill gaps in any pipeline operator's existing Integrity Management Program.
- We provide very high quality, best-in-class, software and services as a proactive long-term partner.



## Integrity Solutions – Service Offerings

As a proactive long-term partner, our goal is to provide U.S. hazardous liquid pipeline and gas pipeline facility operators with the following best-in-class services:

### Compliance Support:

- State & Federal Jurisdiction Applicability Review
- Operations, Maintenance & Emergency Manual Procedures

### Integrity Management Program:

- IMP Pre & Post Audit Support
- IMP Manual Development

### Data Management:

- Data Management Plans
- Data Collection
- Data Spatial Integration
- Anomaly Data Management

### HCA Analysis:

- High Consequence Area Analysis
- Population Classification Analysis
- EFRD Analysis

### Threat Analysis:

- Threat Identification
- Threat Interaction Analysis
- Susceptibility Analysis

### Risk Analysis:

- Risk Algorithm Development
- Risk Algorithm Validation
- Risk Assessment
- Risk Ranking
- Risk Management
- Consequence Analysis
- Risk Result Profiles and Graphs

### Integrity Assessment:

- Baseline Assessment Plans
- Post Integrity Assessment Plans
- In Line Inspection Results Analysis
- ECDA Field Inspection
- ICDA Modeling

### P&M Measures:

- Prevention & Mitigation Measure Plans
- Resource Allocation Analysis



# PFIM™

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# Introducing PFIM™

## Pipeline & Facilities Integrity Manager

- Innovative, cost effective software providing Risk Management Solutions supporting pipeline operators' risk assessment and risk driven resource allocation activities.
- Lays an experience tested foundation for U.S. DOT pipeline regulatory compliance programs.
- PFIM provides analysis tools giving the user "vision" into what is driving multiple threat and consequence risks on a given pipeline facility.
- Easy to implement and use, resulting in low training and maintenance costs. Minimize time spent managing data and maximize effectiveness of using risk software to improve pipeline safety.
- Leverage all you know about your pipeline facilities turning gathered knowledge into Integrity Management.



## PFIM™ Risk Algorithms

- Includes multiple off-the-shelf risk models for any type of pipeline asset including:
  - Natural Gas Transmission Lines
  - Natural Gas Distribution Lines
  - Hazardous Liquid Main Lines
  - Oil/Gas Gathering Lines
  - Oil/Gas Production Lines
  - Oil/Gas Station Facilities
  - Processing Facilities
  - Terminal Facilities
- All risk algorithms are designed to leverage the latest industry risk methodology as developed by Mr. Kent Muhlbauer, author of "Pipeline Risk Management Manual".
- Risk algorithm variables and attributes are based on 49CFR Part 192 / ASME B31.8S and Part 195 / API 1160.
- Flexible pipe section or station Component Hierarchies to organize asset data.
- Configurable to work with diverse data sources.

## PFIM™ – Helping You Drive EFFECTIVE Action

- Evaluate total Risk of Failure (ROF) for each pipeline facility based on Likelihood of Failure (LOF) and Consequence of Failure (COF) calculations.
- Assess the LOF for your asset in terms of specific integrity threats (e.g. External Corrosion, Third Party Damage, etc.).
- Provides powerful analysis tools (e.g. risk driver drill down, interactive threats, ranking matrix graphs) that help you make decisions on which Preventive and Mitigation Measures (PMMs) will be most effective in lowering the total ROF on each pipeline asset.
- Manages historical results sets to show risk improvement – great in an audit environment.

