

## DISTRIBUTION SERVICES

Since 2010, federal regulations (49 CFR 192 Subpart P) have required distribution pipeline system operators to have a Distribution Integrity Management Program (DIMP) and associated written integrity management plan. These regulations prescribe the elements of a DIMP and require pipeline operators to evaluate their DIMP every 5 years, at a minimum. State and municipal regulators can also mandate additional regulations and requirements for the gas distribution sector at their discretion.

The challenge for operators is having in-house expertise and knowledge of the requirements in developing and actively managing an effective distribution integrity management program (DIMP) and to remain compliant with the regulations. Since a DIMP is mandatory, operators must develop, manage, and periodically evaluate an integrity management program internally, or source and obtain external support.

Whether an operator is large or small, each benefit from developing a robust integrity management program to regularly review risk assessments, remain regulatory compliant, mitigate impacts to the environment and ensure public safety and the company's reputation.

**100+**  
OPERATORS  
ACROSS  
NORTH  
AMERICA



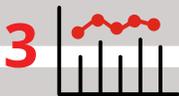
### KEY ELEMENTS FOR AN EFFECTIVE RISK DISTRIBUTION PROGRAM



**1 Investigate root causes for past events**, by operator and industry, including catastrophic as well as less significant events (leaks), to understand how gas networks behave and change over time.



**2 Identify "threat scenarios"** to the gas distribution network that lead to catastrophic events, including high risk assets, failure modes and consequences.



**3 Quantify the probability of each scenarios** and identify which assets are most vulnerable, including asset type, condition and location.



**4 Establish mitigation strategies**, including prevention, detection and response activities, that most effectively mitigate the risk of gas events, and understand the risk reduction benefits of each mitigation options.



**5 Implement supporting processes and tools** to sustain the process, including data analytics and mitigation analysis, and ensure clear accountabilities and responsibilities exist.

Due to the nature of distribution mains, service lines, and facilities being located in higher population density areas, and sometimes within urban dwellings, an incident can have a significant impact on public safety. There also can be a significant financial cost from any incident. Various threats for the cause of an incident include: ground movement, corrosion, joint and fitting degradation, or 3rd party damage.

While ensuring public safety, distribution companies must also use limited resources to efficiently manage costs to monitor and repair aging pipeline infrastructure, such as cast iron pipe. The objective is to implement a cost-effective, risk optimized mitigation strategy.

Operators must analyze and define the primary risk drivers and confirm the appropriate actions for risk reduction. As technology advances, new methods are being introduced that involve a quantitative approach in the development and management of risk. Data integration is key to risk management.

An effective distribution risk program includes a forward looking, predictive approach and related mitigation strategies to increase system safety and reliability.

## DYNAMIC RISK ASSISTS DISTRIBUTION OPERATORS IN THE FOLLOWING AREAS:

- **Risk Management**
  - » Identify all threats to distribution system
  - » Perform system-wide ranking of assets based on failure frequency, consequence, and risk
  - » Prioritize mitigation options and provide quantified support for investment planning and corporate risk reduction, including replacement programs
- **Integrity Management**
  - » Evaluate DIMP for effectiveness and recommend improvements
  - » Conduct system-wide integrity assessment of mains, services, regulator stations, meter stations and other critical distribution facilities
- **Management Systems and Operating Procedures**
  - » Develop and/or review operator's pipeline safety management system, ensuring alignment with API RP 1173 framework
  - » Evaluate operating procedures against industry best practices and regulations, including emergency response procedures.
- **Regulatory Support and Compliance**
  - » Review past implementation of DIMP to identify potential compliance gaps
  - » Conduct periodic review of DIMP implementation to support State or Federal reporting requirements
  - » Provide advisory consulting for regulatory audits and hearings

### **Canada Headquarters**

Suite 1110  
333 - 11 Avenue SW  
Calgary, Alberta, T2R 1L9  
**(403) 547-8638**

## ABOUT US

Dynamic Risk's technology and consulting services optimize risk-informed decision making to manage risk through an asset's entire life cycle. Our IRAS platform models pipeline systems to proactively determine where they are most likely to fail and the corresponding consequences of unintended releases. From gathering systems, midstream pipelines, transmission pipelines, and distribution networks, we have software applications and in-house engineering expertise to provide complete pipeline risk assessment, data management and compliance reporting.

### **USA Headquarters**

10001 Woodloch Forest Dr  
Suite 250  
The Woodlands, TX 77380  
**(832) 482-0606**