



# Supporting Critical Infrastructure Pipeline Management Services for Operators of Low Mileage Pipeline 1/3

## Client

Global Petrochemical  
Manufacturer

## Location

Freeport, Texas



## ASSET INTEGRITY

## Background

On the site of its Texas Gulf Coast facility, a large multinational, fully integrated producer and supplier of monoethylene glycol (MEG) and diethylene glycol (DEG) operates two regulated pipelines for natural gas and ethylene ranging from 8-inch to 10-inch diameter and both less than 10-miles in length. In addition, it operates five non-regulated pipelines. Pipeline management is not core to the company's business; as a result, leadership chose to outsource the regulatory compliance and integrity management tasks associated with these two assets. Following an extensive review of potential service providers, company leaders recognized the unique skillsets and core strengths of G2 Integrated Solutions (G2-IS). As a result, the manufacturer entered into an Integrated Pipeline Management agreement with G2-IS to establish a comprehensive regulatory and integrity management program (IMP) for both the regulated and non-regulated pipeline systems.

## Scope

In 2019, this manufacturer contracted with G2-IS to develop, implement and manage all the Texas Railroad Commission (TRRC) and Pipeline and Hazardous Materials Safety Administration (PHMSA) requirements associated with management of its regulated and non-regulated pipelines. In turn, this allowed the company to focus resources and budget on its core business of producing and supplying MEG and DEG. In order to meet immediate and long-term needs, G2-IS developed a robust and comprehensive pipeline management solution based on the following scope of work:

- Pre-operations:
  - Comprehensive review of pipeline attribute documentation, including as-built drawings, pressure test reports, alignment sheets, material purchase records and pipeline leak reports.
  - Provide engineering and regulatory support for jurisdictional determination regarding pipelines and control room status.
  - Lead engineering and advisory review of construction documentation.
  - Provide pipeline management and geographic information system (GIS) management solutions.
  - Develop regulatory compliance manuals, operation procedures and associated record retention forms.



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- Integrate acquired pipeline data and link corresponding scanned record images into an industry standard GIS database.
- Identify, assess, model and map potential class location and high consequence area (HCA) locations.
- Develop and execute pipeline cleaning plan.
- Develop and manage execution of caliper tool run including review of inspection reports.
- Ongoing Operations:
  - Establish One-Call ticket management system.
  - Assist with management and provision of damage prevention program.
  - Lead development, implementation and management of Public Awareness Program including:
    - Meetings with emergency response teams and public officials.
    - Annual public awareness mail-outs.
  - Develop and manage overall pipeline management solution, including but not limited to:
    - Annual PHMSA reporting.
    - Annual National Pipeline Mapping System submissions.
    - Annual Texas Railroad Commission (TRRC) submittals.
    - Annual program reviews (O&M manuals, OQ Program, IMP program, etc.).
    - Threat assessment and periodic evaluation of integrity program.
    - Annual emergency response tabletop assessments and field exercise drills.
    - Annual high consequence area (HCA), class location, and structure verification reports.
    - Upkeep of regulatory compliance changes.
    - Management of 3rd party contractors for annual pipeline work activities.
    - Cathodic protection system readings and evaluations.



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- Annual cathodic protection system inspections testing (i.e. Close Interval Surveys).
  - Required annual leak surveys.
  - Required valve operations and maintenance.
  - Over pressure protection maintenance.
  - Above-ground visual inspections as required.
- Guide audit preparation and support activities.

## Results

As a result of this Integrated Pipeline Management services contract with G2-IS, the MEG/DEG supplier has been able to concentrate on its core business with minimum distraction to non-core activities, permitting the company to allocate budget and resources to continued successful operations.

In addition, as industry experts, G2-IS is able to deliver:

- A protocol to move the client from a prescriptive to a predictive maintenance and inspection program, allowing them to allocate resources and capital more proportional to risks.
- Constant access to expert pipeline integrity analyses.
- A documented and established, continually improving integrity management program that is fully integrated with operations and other stakeholders to include manuals, procedures and forms.
- A comprehensive compliance tracker tool to document completed and upcoming compliance tasks.
- A software management database to house pipeline inspection data, records, drawings and documents.
- Access to continually improve existing and future pipeline integrity management programs (e.g., new technology awareness, changes in regulation).
- A single source One-Call management system to prevent and mitigate third party damages.



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