1 Mechanical Damage Prevention Techniques

1.1 Course Description

This course focuses on the primary techniques used for managing threats from mechanical and third-party damage. It provides learners with an overview of the execution processes while highlighting key considerations for pipeline construction inspection, agreements related to third-party crossings and encroachments, slabbing, maintenance and rehabilitation of rights-of-way (ROW), and operational training.

Self-assessments reinforce key concepts, and a final graded assessment evaluates the learner's understanding of the material. The online course format allows individuals to review and reinforce the material at their own pace. What sets this course apart is how it addresses the management system aspects involved in the execution of these prevention techniques.

Format: Online
Duration: ~1 hours

1.2 Learning Objectives

By the end of the course, participants should be able to:

1. Define the purpose and application of common mechanical damage prevention techniques.
2. Describe the processes for executing each of the techniques.
3. Outline key considerations for planning and executing each of the mechanical damage prevention techniques.
4. Identify the main outputs (and usage) of mechanical damage prevention techniques.

1.3 Who Should Take This Course

The course is best suited for:

- Individuals who are involved in pipeline integrity and are seeking to understand the techniques used within threat management for the prevention of mechanical and third-party damage.
- Early-to-mid-career practitioners with an engineering/technical background (e.g., technicians, technologists, engineers).
- Individuals with a basic understanding of pipeline design, construction, and operation principles and activities.

1.4 Course Topics

Main topic areas covered in this course include:

- Background
  - What is Mechanical Damage Prevention?
  - Why Prevent Mechanical Damage?
  - Summary of Mechanical Damage Prevention Techniques
  - Associations and Best Practices
- Purpose, Areas of Application, Procedures, and Key Considerations for each of the following techniques:
  - Pipeline Construction Inspection
  - Third-Party Crossing and Encroachment Agreements
  - Slabbing
  - ROW Maintenance and Rehabilitation
  - Operational Training