

Fundamentals of Pipeline Repair Online Training – Course Outline

January 2024

1 Fundamentals of Pipeline Repair

1.1 Course Description

This course introduces the Pipeline Research Council International (PRCI) *Pipeline Repair Manual: 2021 Edition* (PR-186-204504-R01) by providing an understanding of the typical process for performing pipeline repair. Starting with how an anomaly or defect can be identified on a pipeline, the course then discusses typical responses after discovering an anomaly or defect, the different repair methods, the identification of appropriate repair methods for various defect types, and guidelines for the use of the various repair methods. The online course includes self-assessments to clarify and reinforce key concepts for learners while providing individuals the flexibility to review and reinforce the material at their own pace. The course incorporates basic repair scenarios to begin skills development.

Individuals taking this course should have a basic familiarity with the concepts behind pipeline design, operation, and maintenance activities, as well as access to their own copy of the 2021 Edition of the PRCI *Pipeline Repair Manual*.

1.2 Learning Objectives

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

1. Use and navigate the *Pipeline Repair Manual* and the content within it.
2. List the steps of the typical process for choosing an appropriate repair type.
3. Describe the different repair types and when they are generally applicable.
4. Describe the different anomaly or defect types typically encountered on a transmission pipeline.
5. Use the *Pipeline Repair Manual* to support making basic repair decisions.

1.3 Who Should Take This Course

The purpose of this course is to ensure that the participants have a foundational understanding of pipeline repair through the orientation to and interaction with the 2021 edition of the PRCI *Pipeline Repair Manual* (PR-186-204504-R01). The course is best suited for:

- Individuals that are new to active involvement in pipeline repair processes, including those responsible for decision-making, execution, monitoring, and supporting related activities.
- Individuals that are looking to build their practical pipeline repair skills by registering in PRCI's Practical Pipeline Repair course.
- Individuals who interact with, or supervise, individuals responsible for pipeline repair.

1.4 Course Structure and Delivery

The course is available online in a self-paced learning format and is structured to align with the PRCI *Pipeline Repair Manual*. Main topic areas include:

- Topic 1: Introduction
- Topic 2: Background
- Topic 3: Anomaly or Defect Has Been Detected
- Topic 4: Respond to Discovery of Anomaly or Defect
- Topic 5: Review Pipeline Repair Methods
- Topic 6: Determine Appropriate Repairs for Various Defect Types
- Topic 7: Review Guidelines for a Repair Procedure
- Topic 8: Repair Scenarios
- Topic 9: References