

Intended Learning Objectives and CEU Training Course Timeline

Topic:

Corrosion Protection Basics for Ductile Iron Pipelines & The Effective Use of the Updated AWWA C-105 Standard Design Decision Model (DDM)

Course timeline:

1 Hour of training, 50-55 minute presentation (no breaks) with 5-10 min Question & Answer period.

Intended Learning Objectives Abstract:

Introduction to the most recent updates to AWWA C-105 Standard Corrosion Protection including the Design Decision Model (DDM), which now considers Consequences of Failure. It also includes videos for the proper Installation and repair of V-Bio Polyethylene encasement (which is the standardized material). The presentation includes an explanation of this enhanced DDM matrix which was developed jointly by a corrosion engineering council and the Ductile Iron Pipe Research Association (DIPRA). Utilities will now be able to decide for themselves what is their best option on each project they undertake. Defining the mechanisms of corrosion in simple terms while exploring the options in protective coatings, linings, and cathodic protection systems.

Course timeline:

10 minutes: Introduction to External Corrosion basic principles and Galvanic Corrosion

5 minutes: Identify the difference between corrosion and oxidation

15 minutes: AWWA Standard C-105 Corrosion Protection Standard and recent updates of the "The Design Decision Model (DDM)"

10 minutes: External Corrosion Protection Options - VBIO Polyethylene Encasement and Cathodic Protection Options for more severe environments

10 minutes: Proper installation and repair methods for V-Bio Polyethylene Encasement

5 minutes: Zinc Coating Option – why and how

5 minutes: Question and Answer period

Learning Outcomes:

Attendees will be able to identify the difference between corrosion and oxidation of pipelines, to identify the difference between VBIO polyethylene encasement and standard polyethylene encasement, will also know how to properly install and repair polyethylene encasement, to identify zinc coated ductile pipe from standard pipe.