

TRAINING & PRESENTATION TOPICS

1. Ductile 101 - Introduction to Ductile Iron Pipe (DIP)

A conversational presentation covering DIP manufacturing, design, installation, hydrostatic testing, and things you never thought you'd see when ... you're just building a pipeline.

2. Ductile Iron Pipe Design - Internal & External

A behind the scenes look inside the AWWA C150 DIP design standard utilizing the power of the McWane Pocket Engineer. Brings the math alive permitting quick comparisons towards your most efficient and effective pipeline materials selection.

3. <u>Basics of Pipe Corrosion & Protections for DIP -</u> <u>Effective Use of the Updated DIPRA DDM (Design</u> Decision Model)

Corrosion principles are simple. Yet the application of such is often confounded by rhetoric, nuanced agendas, or other influences outside the needs. We present the knowns, you decide how they work best for you.

4. <u>V-Bio Polyethylene Encasement – What, How, & Where?</u>

An interactive classroom approach towards proper and efficient installation of V-Bio enhanced polyethylene encasement with hands-on installation training available.

5. Internal Corrosion Prevention for DIP Pipelines

Corrosion has many contributors. Today's DIP offers many preventive options. Sources of internal corrosion and the proven resolve for each are detailed in this presentation.

6. <u>Ductile Iron Pipe Restrained Joints - Basics and Design</u>

How much restraint joint DIP to use and where can become complicated. Not so if you follow the procedures outlined in the DIPRA Design Guide using the McWane Pocket Engineer.

7. Bridges, Casings and Joints ... Oh My

A comprehensive review and experienced suggestions for using DIP in non-buried installations such as bridges, casings, on-piers, and/or temporary bypass lines. An engineering perspective of common-sense solutions.

8. <u>Sustainable Pipeline Design / Life Cycle Cost</u> Analysis

Simply call it a DIP vs. ALL costs & concerns engineering comparison of pertinent factors towards selecting your proper pipeline material.

9. ENVISION™ and Ductile Iron Pipe (DIP)

Some call this the ASCE version of LEEDS. Yet Envision digs deeper towards a sustainable and overall environmental-friendly focus for planning, design, construction, and the lasting operation of all types of utility systems.

10. <u>The Total Cost Equation of Pipeline Material Selection</u>

A real-world analysis of a model pipeline project comparing the actual costs of using DIP vs. PVC from a contractor's perspective. It's more than just pipe costs.

11. <u>DIP, PCCP, HDPE, PVC, STEEL & FRP – A Comparative Narrative</u>

Factual analysis of true differentials when selecting pipeline materials in utility systems. Internal and external design parameters, energy savings, construction variables and service lives are examined in appraisal of these alternates.

12. <u>Horizontal Directional Drilling Using Ductile</u> <u>Iron Pipe</u>

Principles, practices, and problems to avoid when designing or constructing trenchless installations of DIP. Highlighted with videos of actual HDD installations across the USA. The McWane PE HDD Variable Profile Calculator is also featured.

13. Subaqueous Crossings with Ductile Iron Pipe

Discussion of the challenges involved with pipelines across rivers and streams, along with outlining the materials and specialized joints best suited for such installations.

14. <u>Ductile Iron Pipe Certifications - What They</u> Provide

Examining the rigorous and certified product evaluations that are in place to ensure the use of high-quality low-risk products in utility systems. AWWA, NSF, FM, ISO, and UL are among the certifications presented and discussed.

15. Generational Attitudes in the Utility Workplace

Presented by / from the perspective of a prestigious University faculty member this case-study based presentation explores the effective management of differing generational attitudes and values in today's workplace.