

Pipeline Training Courses



RBWEA

R.B. WILLIAMSON

ENERGY ADVISORS

Systems Engineering

The value of experimentation has been lost in the project planning of new products. Designers are expected to estimate the time to develop a product that has never existed and that has performance attributes that are not measured. Without understanding the basic relationships between inputs and outputs, many projects are set to fail from the beginning.

Systems Engineering is the right approach to defining complex design systems or when optimization across departments is needed.

In this course, you will learn:

- To streamline development and minimize costly rework.
- How inputs and outputs affect each other and the system's longterm behavior.
- The value of customer-centric data analytics.
- How to optimize product performance while minimizing any negative effect on manufacturing and supply chain.

Who is this course for? The curriculum is designed for engineers, project managers, business analysts and students who need to understand or work with complex systems, from design to implementation, and for anyone interested in the intersection of technology, engineering and business.

ASME B31.4 Standards: Benefits, Strengths and Limitations

The ASME B31.4 standard, "Pipeline Transportation Systems for Liquids and Slurries," provides comprehensive guidelines for the design, materials, construction, assembly, inspection, testing, operation and maintenance of pipeline systems used to transport liquids and slurries. Originally published in 1956, the standard has been revised multiple times.

As with many ASME standards, the B31.4 standard is not a design manual but is intended to guide those who wish to comply with industry practices. However, many users find the B31.4 code intimidating, mostly because of the subject layout and interrelated topics.

This course is a chapter-by-chapter review of the standard's benefits, strengths and limitations, as well as guideline interpretations.

In this course, you will learn:

- What the standard expects and the definitions it uses.
- Code compliance.
- How to structure inquiries with the standards committee to obtain the most relevant and helpful response.
- Practical aspects of pipeline design, construction and maintenance.

Who is this course for? This course is for pipeliners who want to gain crucial expertise in pipeline engineering, improve pipeline safety or upgrade their professional qualifications.

Asset Integrity. A 360° Overview

Assessing pipeline assets is done routinely to determine and manage their health. While the methods and frequency of assessment are flexible, they are outlined in federal pipeline regulations. Operators generally develop their own procedures for assessing and repairing their pipelines based, at a minimum, on regulatory compliance and the operator's legacy of safe pipeline operations and maintenance.

This course will cover in-depth four key aspects of measuring pipeline integrity: assessment, such as in-line inspection (ILI); data analysis, including defect analysis, remaining strength and corrosion growth prediction; for field validation and post-assessment reporting and recommendations.

In this course, you will learn:

- The major and outlier sources of pipeline data.
- How overlaying data from various sources onto one comprehensive map can unlock pipeline dynamics affecting the pipeline's safe operation.
- The regulatory allowances and expectations related to asset integrity.
- Insights into best practices in assessment, data analysis, field validation, and reporting.
- How outside influences can affect plans for assessing and managing pipeline health.

Who is this course for? For pipeline professionals seeking to improve integrity assessment, risk management, compliance., pipeline safety and environmental protection.

Trap Safety – Equipment and Processes

The safe operation of pipeline traps begins with a sound understanding of the risks involved.

Generally, pipeline operators work to achieve good pipeline trap practices and will train their technicians to safely operate the traps. However, technicians can become accustomed to deviations from standard operating procedures or safety protocols (normalization of deviation), which can result in safety hazards, operational disruptions and regulatory non-compliance.

This course will cover trap configuration and design, closures and the operating procedures that can unwittingly become subject to normalization of deviation.

In this course, you will learn:

- The underlying principles of trap operation.
- Operator qualifications.
- How to identify normalization of deviation.
- The risks associated with trap operation.
- How technology and procedures can manage and mitigate risk.

Who is this course for? The curriculum is designed for Operator Qualified technicians accountable for safe trap operation, for pipeline engineers and designers who support pigging and ILI operations and for health, safety and environment (HSE) personnel.



RBWEA provides off-the-shelf and customized training that fits your schedule, requirements and goals. Available at your location, our training center or online.

- Our industry experts will come to you or can provide training in the focused learning environment of our Tulsa Operations facility.
- For optimal flexibility, we offer online webinars. Convenient and accessible training from anywhere.
- Have a special need? We can tailor our training to your policies, procedures and processes.

**For additional information, contact Emily Perkins,
emily.perkins@rbwea.com**