



## Terminals and Storage Facilities - PL-44

### COURSE

#### About the Course

This 5-day, foundation level course reviews key issues associated with development, design, construction, and operation of terminals and storage facilities for liquid hydrocarbons and NGLs. The course focuses on six areas:

1. Terminal codes and siting constraints
2. Terminal design and equipment layout
3. Types of storage and selection criteria
4. Design considerations for loading racks, fire protection, vapor recovery, blending equipment, and water treatment
5. Detailed design of storage tanks, vessels, and caverns
6. Operations and maintenance

Safety, quality control, system reliability, availability, and regulatory compliance are integrated throughout the course. Case studies and team exercises are used to reinforce key points.

*"I enjoyed the overall general information given as my own exposure has been minimal to this point."* - Leak Detection Engineer, United States

*"Everything that was taught was relevant and I enjoyed every aspect of the course."* - Participant, Ghana

#### Target Audience

Project managers, engineers, operations and maintenance supervisors, and regulatory compliance personnel with 1-3 years of experience in planning, engineering, constructing and/or operating terminals and storage facilities for hydrocarbon liquids, NGLs, and petrochemical feedstocks. This course is for participants needing a foundation level understanding of the planning, engineering, construction, operations, and maintenance of storage and terminals connected to pipelines, rail, barges/tankers and/or truck loading facilities.

#### You Will Learn

- Storage and terminals basics for hydrocarbon liquids, NGLs, and petrochemical feedstocks
- Design and operation of atmospheric storage tanks and pressurized bullets and spheres
- Fundamentals of underground storage (salt and rock caverns)
- Safety, product quality, and reliability/availability concerns

## Course Content

- Sizing criteria and economics for storage and terminal facilities
- Various storage types (atmospheric storage tanks, pressure vessels, salt or rock caverns) and appropriate applications
- Terminal and tank farm layout constraints
- Details of industry codes and standards, plus regulatory and environmental compliance
- Selection of equipment for delivery and receipt to/from pipelines, barges and ships, trucks, and rail, including metering options, loading arms, pumps, and control systems
- Blending options and equipment, VRU/VCU, water treating, and fire protection
- Key factors affecting safety, product quality, system reliability, and profitability in design, construction, and operations
- Atmospheric storage tank design, layout, construction, corrosion prevention, and operations covering API 650 and API 653
- Overview of pressure vessel and sphere design and construction
- Design, development, and operation of underground cavern storage facilities

## Product Details

Categories: [Midstream](#)

Disciplines: [Pipeline Engineering](#)

Levels: [Foundation](#)

Product Type: [Course](#)

Formats Available: [In-Classroom](#)

Instructors: [Stuart Watson](#) [Josh Gilad](#) [PetroSkills Specialist](#)

## In-Classroom Format

2 Dec '24 - 6 Dec '24 - | Course | In-Classroom (in Houston) \$4,710.00

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