



F A Successful 2-Day In-house Training Course

Tank Farm Operations and Performance



ISO 29990 : 2010 Certified



ISO 9001: 2015 Certified



This course is Designed, Developed, and will be Delivered under
ISO Quality Standards

Tank Farm Operations and Performance



WHY CHOOSE THIS TRAINING COURSE?

The effective management and operation of an oil and gas terminal is essential for a successful business. The processing, transporting and storing of crude oil and refined petroleum products, in tank farms, involves custody transfers of partner and commingled stock, significant volumes of data from various sources and blending operations complexities. In addition, as these liquids are loaded and offloaded in bulk quantities, there is a large transfer of high value that makes it imperative for tank farm operators to efficiently manage their inventory and maximize their return on investment.

This PetroKnowledge training course provides an overview of the American Petroleum Institute API-650, as well as the API 653 inspection standard, with a strong emphasis given both on safety as well as operability of tank farms. Upon successful completion of this training course, participants will gain essential knowledge on oil terminals operations and performance.

This training course will feature:

- Crude oil and product properties & handling
- Identify the different types of tank, troubleshoot, review and improve the operation of a tank farm
- Tank gauging techniques, custody transfer and fiscal metering methods
- Essentials on Tank Design and inspection Standards Codes and Regulations
- Troubleshooting, review and improvement of tank farm operations

HOW WILL THIS TRAINING COURSE BE PRESENTED?

The training course includes interactive sessions with questions, discussions and problem solving under supervision along with group exercises. It will be conducted as an interactive workshop that encourages participants to share their own experiences and apply the programme material to real-life situations. The course will also be reinforced by a learning mix that includes, lecture style presentation, open discussion. All methods will enhance the understanding of the taught material.

WHAT ARE THE GOALS?

The tank farm's mission is to perform its daily operations while maintaining a safe storage terminal. Attendance to this training course will ensure:

- In-depth knowledge of operations & management of crude oil and product terminals
- Grasp of the essentials of various planning and transfer requirements for terminals
- Development of good terminal management skills including how to apply safe practices and procedures during the various operations in terminals including oil spill contingency and emergency response plans
- Knowledge of techniques on blending recipes for on specification products
- Understanding on the limitations of tank gauging methods and learn up to date new technologies and methodologies for accurate tank measurement

WHO IS THIS TRAINING COURSE FOR?

This PetroKnowledge training course is designed for anyone employed in petroleum refineries or hydrocarbon storage facility. In addition, it is intended, but not limited to professionals involved in handling, loading, or discharging of oil and gas cargoes.

This training course is specifically designed for:

- Oil and Gas refinery or product storage facility personnel
- Marine Terminal Managers, supervisors and Superintendents
- Oil and gas operators and engineers
- Facility Managers and Coordinators
- Process Engineers, Project Managers, Mechanical Engineers, Electrical Engineers, Instrumentation/ Control Engineers, technical staff
- Safety and Environmental personnel
- Transfer Supervisors
- Oil and Gas Cargo officials



DAILY AGENDA

Day One: Crude Oil and Product Properties

Competency Description: As a professional in the oil and gas industry, you need to gain fundamental technical skills to comprehend Tank Farm Operations and Performance.

Key behaviours

- Understand the scope and structure of the Tank Farm Operations industry
- Appreciate the importance of knowing the physical and chemical characteristics of stored petroleum products and how these impact the storage choice
- Explore how the different types of product stored impact firefighting and prevention methods
- Learn the proper procedure for crude oil and product transfer and appreciate the different types of instruments used for custody transfer their accuracy and turndown.
- Comprehend the purpose and use of the Bill of Lading
- Appreciate the source, impact and magnitude to tank gauging errors
- Comprehend the purpose and use of the Bill of Lading
- Learn the proper procedure for crude oil and product transfer and appreciate the different types of instruments used for custody transfer their accuracy and turndown.

Topics to be covered

- Review of Energy Production and Consumption
- Tank farm Operations, Planning and scheduling
- Physical, chemical & hazardous properties of Stored products
- Case study - I: Static Electricity Major accidents
- Ship to shore Transfers, Ship Loading and discharge process
- The of bill of lading, Custody transfer and administration
- Tank gauging and metering, meter proving, stock loss & Pipeline transfer loss
- Group exercise: Loss estimation – Excel Calculations

Day Two: Tank Terminal Operations

Competency Description: Learn the different methods of tank calibration and gauging and the importance of fiscal metering

Key behaviours

- Learn how comingled stock & unpumpables are treated in oil terminals
- Appreciate the source, impact and magnitude to tank gauging errors
- Appreciate the different types of instruments used for tank level & flow measurement and their importance to product transfer
- Learn the different methods in tank calibration
- Understand the importance of the International Safety Guide for Oil Tankers and Terminals - ISGOTT
- Acquire blending skills to minimize quality and value giveaways
- Carry out calculations using excel to predict important product properties and thus minimize product failures
- Appreciate that tank farm blending operations can add value by improving the terminals bottom line.

Topics to be covered

- Comingled stock & Unpumpables
- Terminal inventory Control & Inter Tank transfers & Changing tanks service
- Tank calibration/ recalibration
- Instrumentation, flow and level measurement / Spill and overfill control
- Level alarms/ independent level alarms
- ISGOTT - Required notifications in the event of a release
- Sampling and quality control – ISO 17025
- Product Blending and Product failures Excel exercise

QUALITY CERTIFICATION

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ISO 9001: 2015 Certified

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