TERMINAL OPERATIONS MANAGEMENT & SUSTAINABILITY

Custody Transfer and HSEQ Risk

For Marine Tank Storage Terminals and Refineries

A marine storage terminal and refinery is a complex living system. Interaction with all stakeholders is a challenge. Complying to an ever growing number of rules, regulations and guidelines needs a control system which is manageable. We created a new management learning program that focuses on this concept: 'information reduces uncertainty' by using systems science. This is a unique approach developed after much research to make supervisors and managers understand how complex systems behave and generate risk.

Management when focusing on effectivity using technological, economic or operational skills only, does not suffice anymore due to the enormous complexity of responsibilities and uncertainty which is the inability to know everything fully. Uncertainty is a fundamental property of complex systems primarily due to, a large number of elements, high interconnectivity, interdependence, nonlinear interactions and coevolution. Feedback loops during a system's development make the space of possible future states to the system grow at an exponential rate. Within complex environments, our traditional analytical methods for modelling the future – that depends on probability and statistics – break down. In response you need to invest more in understanding these broader trends. TTT teaches terminals how to respond and function within a wider range of possible states in order to maintain stability and prosperity.

HSE, knowledge, insight, awareness, skill, control, efficiency, time, to name just a few, are the necessary foundations for tank terminal management and marine operations. It all comes down to be able to control and steer the terminal's complexity through information feedback.

This highly interactive and practical course will assist bulk liquid marine storage terminals in achieving a competitive advantage by having an effective and well-managed operation. This will ensure your operational processes and workforce perform up to the highest standards and expectations.

HSE, knowledge, insight, awareness, skill, control, efficiency, time, to name just a few, are the necessary foundations for efficient and safe tank terminal and marine operations.

TTT researched Risk Control and Tank Terminal Management and now offers this science based training module. It will highlighted by photographic material and true live situations taken from our international experience.

Why You Should Attend

This 3-day highly interactive and practical course will assist petroleum, crude oil and chemical terminals in achieving a competitive advantage by having an effective and well-managed operation. This will ensure your operational processes and workforce perform up to the highest standards.

Learning Objectives

Master operational best practices and apply a structured approach to oil and gas marine terminal management

1. **Identify improved procedures** for the handling, loading and discharging of bulk liquids
2. **Learn updated international guidelines and regulations** concerning tankers and terminals including physical properties and types of cargoes
3. **Increase your operational efficiency** for oil storage and transport
4. **Become aware of Quality & Quantity risk & loss and learn** prevention techniques
5. **Improve compliance, safety and environmental performance**
6. **Learn how to measure and verify individual competencies of personnel and contractor**
7. **Learn how use science to mitigate risk exposure by the MTMSA program**

Who Should Attend?

This course is designed for anyone with immediate responsibility for custody transfer operations, HSEQ, refinery or terminal management and supervision.

Attendees include:

- **Supply Chain** - Personnel involved in crude oil and products transhipment, chartering, shipping, finance, quantity measurement and accounting, cargo operations, planning, scheduling, including management who did not have a chance of working ‘in the field'.
- **Energy and Logistics** - Ship-brokers, traders, shipping agents, claims departments staff, loading masters, cargo inspectors, surveyors, demurrage departments, marine insurers, charterers, ship-owners: biofuel, crude oil, oil products, chemical or mineral resource enterprises.
- **Administrative and Non-Operational office** staff who lack ‘on hand' practical experience, this course will help them to vividly imagine operational reality by discussing and solving ‘real time' daily issues.
- **Terminals & Refineries:** Operation Managers, Supervisors, Managing Directors

Tank Terminal Training

energy institute Learning Affiliate

COURSE OUTLINE

DAY ONE

Session 1

PRE-TRAINING TEST

We ask 10 questions to test existing knowledge in order to assess specific areas that need in depth coverage. Asking general questions related to the management of custody transfer and ship/shore interface. This allows customizing the training program to ascertain optimum benefit to the students**.**

Session 2

THE MARINE STORAGE TERMINAL – REFINERY OFF SITES

In order to understand and being able to professionally communicate, supervise and control the ship/shore interface, relevant technical and maritime terminology must be learned and understood.

- Understanding the complexity of your Marine Storage Terminal or Refinery by mapping relationships using information theory (feedback)
- Testing your knowledge of technical and maritime terminology
- Identifying of risk exposure in your network
- Working with the Marine Terminal Management and Self-Assessment (MTMSA) method by OCIMF – verification of operational risks

Session 3

INTERNATIONAL SAFETY GUIDE FOR OIL TANKERS AND TERMINALS (ISGOTT) 6th EDITION

- Safety procedures and recommendations for tanker and terminal operations
- PPE, Potential Hazards, Compliance, check-lists
- Oil Companies International Marine Forum (OCIMF) Marine Terminal Competence and Training Guide (MTCOT) – Awareness, Skill & Knowledge.
- Testing competencies of personnel and contractors
- Human Factors and behaviour in Health, Safety, Environment and Social Responsibility:
- Building and maintaining a self-learning and adaptive HSEQ system
- Updated international guidelines, regulations and shipping clauses.

Session 4

MANAGEMENT OF THE TANKER AND TERMINAL INTERFACE (ISGOTT Chapter 21 & 25)

- Communications: procedures & precautions - The Nautical Chain
- Pre-Arrival and Pre-Berthing exchange of information
- Information from tanker to terminal
- Information from terminal to tanker
- Cargo load or discharge plan and Cargo Agreement (Role Play)
- Pre-transfer exchange of information
- MSDS (SDS) and product quality specifications & HSE risks
- Duties and Preparation for cargo loading (responsibilities ship & shore)
- Duties and Preparation for cargo discharge (responsibilities ship & shore)

Day TWO

Session 5

HANDLING OF BULK LIQUIDS: UNDERSTANDING AND CONTROL OF CUSTODY TRANSFER

- Understanding Bill of Lading, Ullage report, Vessel Experience Factor and other relevant documentation
- ASTM-API measurement & calculation methods of petroleum products, crude oil, chemicals and LPG. Managers and supervisors must be able to verify quantification of cargoes
- Trim and List correction calculation, basic interpolation
- Outturn determination - shore receipt reconciliation
- The basics of Loss Control techniques

Session 6

UNDERSTANDING THE SHIP SHORE SAFETY CHECKLIST (ISGOTT 6)

- Ship-shore safety checklist – all questions made visible to understand technical details of equipment and their locations
- How to fill it in?
- Which questions are relevant?
- What to do when a situation is not covered by the checklist?

Session 7

CHARTER PARTY AND DEMURRAGE

- Charter party and INCO trading terms
- Understanding Laydays, Laytime, Laycan and Demurrage
- Statement of Facts –Time Keeping – Time Breakdown
- Global shipping clauses and retention clause
- Notice of readiness – when and how to sign, receive or accept
- Writing a Letter of Protest
- Storage Terminal General Terms and Conditions

DAY THREE

Session 8

MANAGING COMPLEXITY – MAXIMUM CONTROL OF OPERATIONAL & HSE RISK - SUSTAINABILITY

- Setting up a self-learning, horizontal management system by systems theory
- Improve HSE and operational risk management skills
- Improve communication and conversation skills
- Learn how to govern the terminal operations by information
- Making your terminal or refinery a Viable System ensuring long term continuity
- Contingency planning

Session 9

REVIEW OF WORKSHOP MATERIAL

- Discussion on workshop subjects
- Pre-examination questions and answers session
- The value of being a member of the Energy Institute

Session 10

Test: Writing a Complexity and Risk Management Plan (500 words)

Session 11

REVIEWING TEST RESULTS AND CLASS DISCUSSION OF EXAMINATION ANSWERS

- Awarding of TERMINAL MANAGEMENT Certificates of Competence

Course Instructor: Arend van Campen, Tank Terminal Training

Arend van Campen is a committee member of the Dutch Branch of the Energy Institute. Arend has worked for over 35 years as a CEO, Terminal Manager, Marine Cargo Expediter and Loss Prevention Advisor around the globe including Amsterdam, Rotterdam and Antwerp for a number of clients such as Shell, BP, Exxon, Pertamina, Q8 Petroleum, Gulf Nederland, Vopak, Cargill, Amfert, Mobil and Petroplus. TTT has been officially recognized by the Energy Institute as a Learning Affiliate. Arend holds a Master's degree in Business Ethics & Social Responsibility and teaches that a safe, sustainable and profitable business can thrive only when people choose and act ethically and are willing to learn. He set up www.sustenance4all.com', a thinktank researching sustainable business methods to ensure human well-being and the preservation of the environment. In 2020 he founded www.tssi.ch the Tank Storage Sustainability Initiative.

We make people better!