ADVANCED TRAINING FOR CHEMICAL TANKER CARGO OPERATIONS

COURSE AIM

This course provides training for Masters, chief engineer officers, chief mates, second engineer officers and any person with immediate responsibility for loading, unloading care in transit, handling of cargo, tank cleaning or other cargo related operations on chemical tankers.

TARGET GROUP

This course is aimed at masters, chief engineers, officers and any other person with responsibility for loading, discharging, and care in transit or handling of cargo on chemical tankers in any capacity as part of the mandatory STCW requirements.
The course takes full account of Section A-V/1-1-3 of the STCW Code.

COURSE CONTENT

- Knowledge of a chemical tanker, systems and equipment, including:
  - General arrangement and construction,
  - Pumping arrangement and equipment,
  - Tank construction and arrangement,
  - Pipeline and drainage systems,
  - Tank and cargo pipeline pressure and temperature control systems and alarm,
  - Gauging control systems and alarms,
  - Gas-detecting systems,
  - Cargo heating and cooling systems,
  - Tank cleaning systems,
  - Cargo tank environmental control systems,
  - Ballast systems,
  - Cargo area venting and accommodation ventilation.
  - Vapour return/ recovery systems,
  - Fire-fighting systems,
  - Tank, pipeline and fittings material and coating,
  - Slop arrangement
- Knowledge of pump theory and characteristics, including types of cargo pump and their safe operation,
- Proficiency in tanker safety culture and implementation of safety management system,
- Knowledge and understanding of monitoring and safety systems, including the emergency shutdown,
- Loading, unloading, care and handling of cargo,
- Ability to perform cargo measurements and calculations,
- Knowledge of the effect of bulk liquid cargoes on trim, stability and structural integrity,
- Knowledge and understanding of chemical cargo-related operations, including,
  - Loading and unloading plans,
  - Ballasting and deballasting ,
  - Tank cleaning operations,
  - Tank atmosphere control,
  - Inerting,
  - Gas-freeing,
  - Ship-to-ship transfers,
  - Inhibition and stabilization requirements,
  - Heating and cooling requirements and consequences to adjacent cargoes,
  - Chemical cargoes categories (corrosion, toxic, flammable explosive),
  - Chemical groups and industrial usage,
  - Reactivity of cargoes,
- Understanding the information contained in a Material Safety Data Sheet (MSDS),

- Knowledge and understanding of safe working practices, including risk assessment and personal shipboard safety relevant to chemical tankers:
  – Precautions to be taken when entering enclosed spaces, including correct use of different types of breathing apparatus,
  – Precaution to be taken before and during repair and maintenance work,
  – Precaution for hot and cold work,
  – Precaution for electrical safety,
  – Use of appropriate personal protective equipment (PPE),• Knowledge and understanding of oil tanker emergency procedures, including:
  – Ship emergency response plans,
  – Cargo operations emergency shutdown,
  – Actions to be taken in the event of failure of systems or services essential to cargo,
  – Fire-fighting on chemical tankers,
  – Enclosed space rescue,
  – Cargo reactivity,
  – Jettisoning cargo,
  – Use of a Material Safety Data Sheet (MSDS),
- Action to be taken following collision, grounding or spillage,
- Knowledge of medical first aid procedures on board chemical tankers, with reference to the Medical First Aid Guide for Use in Accident Involving Dangerous Goods (MFAG),
- Understanding of procedures to prevent pollution of the atmosphere and the environment,
- Knowledge and understanding of relevant provisions of the International Convention for the Prevention of Pollution from Ships (MARPOL), and other relevant IMO instruments, industry guidelines and port regulations as commonly applied,
- Proficiency in the use of the IBC Code and related documents.

This course is designed in conformity with the IMO model course 1.03.

COMPETENCY

Delegates will be required to pass a practical assessment of skills, and a written or verbal examination of theory.

PRE REQUISITE

At least three months of approved sea going service on tankers in order to acquire the adequate knowledge of safer operational practices OR and approved Tanker Familiarisation course covering at least the syllabus for section A-V/1 of the STCW Code.

METHOD OF TRAINING

Theory conducted in a classroom including presentations and discussions based on lived experiences, followed by practical & simulation training and assessment and will include the visual teaching aids, writing materials and provision of catering.

COURSE DURATION Seven (7) days.

RATIO OF THE TRAINING 70% Theory / 30 % Simulation

VALIDY OF CERTIFICATE 5 years

DURATION OF REFRESHER TRAINING 2 days