STCW Code Section B-V/1
Guidance regarding the training and qualifications of tanker personnel
Ref: https://www.edumaritime.net/stcw-code
Source: IMO

Person with immediate responsibility

1. The term "person with immediate responsibility" as used in paragraphs 3 and 5 of regulation V/1-1 and paragraph 3 of regulation V/1-2 means a person being in a decision-making capacity with respect to loading, discharging, care in transit, handling of cargo, tank cleaning or other cargo-related operations.

FAMILIARIZATION TRAINING FOR ALL TANKER PERSONNEL

2. All tanker personnel should undergo familiarization training on board and, where appropriate, ashore before being assigned to shipboard duties, which should be given by qualified personnel experienced in the handling and characteristics of oil, chemical or liquefied gas cargoes, as appropriate, and the safety procedures involved. The training should at least cover the matters set out in paragraphs 3 to 8 below.

Regulations

3. Knowledge of the ship’s rules and regulations governing the safety of personnel on board a tanker in port and at sea.

Health hazards and precautions to be taken

4. Dangers of skin contact; inhalation and accidental swallowing of cargo; the harmful properties of the cargoes carried, personnel accidents and associated first aid; lists of do’s and don’ts.

Fire prevention and fire fighting

5. Control of smoking and cooking restrictions; sources of ignition; fire and explosion prevention; methods of fire fighting; portable fire extinguishers and fixed installations.

Pollution prevention

6. Procedures to be followed to prevent air and water pollution and measures which will be taken in the event of spillage.

Safety equipment and its use

7. The proper use of protective clothing and equipment, resuscitators, escape and rescue equipment.

Emergency procedures

8. Familiarization with the emergency plan procedures.
PROOF OF QUALIFICATION

9. The master of every oil, chemical and liquefied gas tanker should ensure that the officer or the person primarily responsible for the cargo possesses the appropriate certificate, issued or endorsed or validated as required by regulation V/1-1, paragraph 3; regulation V/1-1, paragraph 5 or regulation V/1-2, paragraph 3, as appropriate, and has had adequate recent practical experience on board an appropriate type of tanker to permit that officer or person to safely perform the duties assigned.

GUIDANCE REGARDING APPROVED ONBOARD TRAINING

General

10. The purpose of qualifying shipboard service is to provide training and knowledge for the safe carriage of specific tanker cargoes.

11. To satisfy the experience appropriate to their duties on the type of tanker on which they serve referred to in regulation V/1-1, paragraph 4.2.2, regulation V/1-1, paragraph 6.2.2 and regulation V/1-2, paragraph 4.2.2, onboard training should:
   1. emphasize practical "hands on experience" and be related to the employment of the seafarer, i.e. the training of deck and engineering departments may be different;
   2. be under the supervision of personnel qualified and experienced in the handling, characteristics and safety procedures of the cargoes being carried by the vessel;
   3. be on board the tanker carrying products relative to the tanker Certificate of Proficiency/Endorsement being sought and should be such that the specialist equipment is brought into operation but may be on a ballast passage between cargoes for part of that period;
   4. take part in at least three loading and discharge operations; and *
   5. at least cover the matters set out in "Onboard training criteria" in paragraph 19.

12. The onboard training programme must in no way affect the safe running or the seaworthiness of the vessel.

* A loading or discharging operation is considered to be the loading or discharge of more than 60% of the total cargo tank capacity of the vessel. Loading/discharges of less than this quantity may be summed together to be equivalent to this quantity.

Onboard training programme

13. The trainee should be carried in a supernumerary capacity (i.e. the trainee will have no other duties than that of undertaking the training programme and emergency duties).

14. The programme of onboard training should be managed and coordinated by the company which manages the ship on which the seagoing service is to be performed and be a vessel nominated by the company as a training vessel. *

15. At all times, the trainee should be aware of two identifiable individuals who are immediately responsible for the management of the programme of onboard training. The first of these is a qualified seagoing officer, referred to as the "shipboard training officer", who, under the authority of the master, should organize and supervise the programme of training. The second should be a person nominated by the company, referred to as the "company training officer",.
who should have an overall responsibility for the training programme and for coordination with training organizations.

16. The trainee should be provided with an approved training record book to enable a comprehensive record of practical training and experience at sea to be maintained. The approved training record book should be laid out in such a way that it can provide detailed information about the tasks and duties which should be undertaken and the progress towards their completion. Duly completed and countersigned by the master, the approved record book will provide unique evidence that a structured programme of onboard training has been completed leading towards the issue of a relevant Certificate in Advanced Training for Tanker Cargo Operations.

17. During the approved onboard training programme the trainee should be instructed in the loading, discharging, care in transit, handling of cargo, tank cleaning or other cargo-related operations of the tanker to ensure that the experience gained is at least equal to that which would be obtained in three months' normal service.

18. If the three-loading and three-unloading criteria cannot be achieved within the one-month onboard training period, then the period of onboard training should be extended until these criteria have been satisfactorily achieved.

* A nominated training vessel is a trading vessel named by the company that is suitable for the purpose of this guidance, as applicable.

**Onboard training criteria**

19. The onboard training should at least provide knowledge and experience, relevant to the applicable tanker type, of the following:

1. **Safety**
   1. All tanker types
      1. Ship’s safety-management system
      2. Cargo-specific fire-fighting equipment and procedures
      3. Cargo-specific first-aid procedures, including the Medical First Aid Guide for Use in Accidents involving Dangerous Goods (MFAG)
      4. Ship-/cargo-specific hazards, including smoking regulations, oxygen-depleted atmospheres, cargo hydrocarbon narcosis and toxicity
      5. Risk assessment systems
      6. Permit to work, including hot work and enclosed spaces entry procedures
      7. Use of personal protective equipment
   2. Additional for liquefied gas tankers
      1. Dangers and precautions related to handling and storage of cargoes at cryogenic temperatures

2. **Construction, cargo, cargo tanks and pipelines**
   1. All tanker types
      1. Hull/tank construction and limitations
      2. Cargo connections
3. Properties and hazards associated with the types of cargo being carried, including use of Material Safety Data Sheets
4. The risks that cargo operations (such as purging/gas-freeing/tank cleaning) may have on the accommodation ventilation systems and actions to mitigate these risks
5. Configuration of cargo and ballast system
6. Pumps and associated equipment
7. Specialist equipment associated with the cargo operations
8. Particulars of the tanker's construction and how this affects the cargo operations

2. Additional for liquefied gas tankers
   1. Use of segregation, separation and airlocks to maintain gas-safe areas
   2. Cargo tank, inter-barrier, insulation spaces, and pipeline relief valves and vapour venting systems
   3. Cargo vapour compressors and associated equipment

3. Trim and stability
   1. All tanker types
      1. Tanker's stability information and calculating equipment
      2. Importance of maintaining stress levels within acceptable limits
      3. Dangers of free surface effect and "sloshing" effect

4. Cargo operations
   1. All tanker types
      1. Pre-planning of loading/in-transit care, discharge/ballast operations
      2. Record keeping
      3. Start up/stopping procedures, including emergency shutdown
      4. Attention required for mooring arrangements during cargo operations
      5. Purging and inerting requirements and associated hazards
      6. Loading cargo, including topping-off operations
      7. Discharging cargo, including draining and stripping operations
      8. Monitoring of cargo during loading/discharging operations, including sampling where applicable
      9. Tank gauging and alarm systems
     10. Dangers from electrostatic discharge and its prevention
     11. Ballasting and deballasting operations
     12. Maintenance requirements, including coating inspections

2. Additional for chemical tankers
   1. Polymerization, cargo compatibility, tank coating compatibility and other reactions
   2. Functions of inhibitors and catalysts
   3. Vapour/gas dispersion

3. Additional for liquefied gas tankers
   1. Polymerization, cargo compatibility, tank coating compatibility and other reactions
2. Functions of inhibitors and catalysts
3. Causes of backpressure and pressure surge effects
4. Use of boil-off gas as a fuel
5. Vapour/gas dispersion
6. Purging and cool-down operations
7. Operation and maintenance of re-liquefaction equipment
8. Understanding and use of the custody transfer system

4. Additional for oil tankers
   1. Crude oil washing systems

5. Tank washing/cleaning
   1. All tanker types
      1. Tank cleaning systems and equipment fitted on the tanker
      2. Pre-planning of tank washing/cleaning operations
      3. Tank washing procedures, including purging and inerting
      4. Control of slops/waste product
      5. Electro-static hazards
      6. Cleanliness requirements
      7. Maintenance requirements
   2. Additional for chemical tankers
      1. Removal of inhibitors and residues
      2. Use of absorption, cleaning agents and detergents
   3. Additional for liquefied gas tankers
      1. Hot-gassing/boil-off of liquid residues and regassification process

6. Inert gas systems
   1. All tanker types
      1. Inerting system(s) and equipment fitted to the tanker
      2. Hazards associated with inerting of spaces, with particular reference to safe entry into tanks
      3. Purging, maintaining inert atmosphere and gas-freeing operations
      4. Maintenance requirements

7. Pollution prevention and control
   1. All tanker types
      1. International, flag State and company regulations, documentation and plans
      2. Operation of the tanker’s pollution-prevention systems and equipment, including discharge monitoring
      3. Operation of the tanker’s pollution-containment equipment

8. Gas-detection equipment and instruments
   1. All tanker types
      1. Use and calibration of personal, portable and fixed gas analysers, with particular reference to oxygen and hydrocarbon monitoring equipment
      2. Operation, maintenance and limitation of cargo tank level measuring, level alarm and temperature-measuring systems
2. Additional for liquefied gas tankers
   1. Operation and maintenance of hull temperature measurement

9. Publications
   1. All tanker types
      1. International, flag State and company publications relevant to the operation of the tanker, including SOLAS, MARPOL and applicable guidance manuals
      2. Operating and maintenance manuals specific to the equipment on board
      3. Established industrial standards and code of safe working practice (e.g., ICS, OCIMF, SIGTTO)