



**DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA**  
**MERCHANT SHIPPING SECRETARIAT**  
**MINISTRY OF PORTS AND SHIPPING**

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## **General Guidelines and the Minimum Equipment List to Conduct Tankers Training Programme for Masters, Officers and Ratings.**

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### **Introduction**

1. Officers and ratings assigned specific duties and responsibilities related to cargo or cargo equipment on oil or chemical tankers shall hold a certificate in **basic training for oil and chemical tanker** cargo operations.
2. Masters, chief engineer officers, chief mates, second engineer officers and any person with immediate responsibility for loading, discharging, care in transit, handling of cargo, tank cleaning or other cargo- related operations on oil tankers shall hold a certificate in **advanced training for oil tanker** cargo operations.
3. Masters, chief engineer officers, chief mates, second engineer officers and any person with immediate responsibility for loading, discharging, care in transit, handling of cargo, tank cleaning or other cargo-related operations on chemical tankers shall hold a certificate in **advanced training for chemical tanker** cargo operations.
4. Officers and ratings assigned specific duties and responsibilities related to cargo or cargo equipment on gas tankers shall hold a certificate in **basic training for gas tanker** cargo operations
5. Masters, chief engineer officers, chief mates, second engineer officers and any person with immediate responsibility for loading, discharging, care in transit, handling of cargo, tank cleaning or other cargo- related operations on gas tankers shall hold a certificate in **advanced training for gas tanker** cargo operations.
6. Mandatory minimum requirements for the training and qualifications of Master, Officers and ratings on the above mentioned tanker vessels are specified in the regulation 13 of the Merchant Shipping Standards of Training, Certification and Watch keeping for Seafarers.

All training institutes should adhere to applicable regulations and required to make assessments of

any potential risks to the health and safety of staff and trainees that may be associated with their activities. They are also required to identify, implement, monitor and review effective measures for minimizing and controlling them. In addition, institutes will be required to make effective arrangements for dealing with any emergency, incident or accident that may occur during the course of training.

### **Standard of competence**

Every candidate for certification in basic/advanced training for oil /chemical /gas tanker cargo operations shall be required to demonstrate the competence to undertake the tasks, duties and responsibilities listed in the relevant sections of the STCW Code.

### **Course approval and Conducting Procedure**

1. Entry criteria for the respective courses are given in the code of practice.
2. Core /detailed syllabuses will be given by the Director General of Merchant shipping (DGMS).
3. Lesson plan lecture notes and student hand out should be prepared according to the core and detailed syllabus by the institute.

### **General Informations**

1. Provisional approval will be granted for Successful submission institutes for a period of three (3) months and permanent approval will be issued after observing of their performance during the three (3) months of provisional period.
2. Approval automatically suspended, if any institute has not conducted the said training programme for a period of two (2) years.
3. Relevant table of the STCW code should be complied and IMO model course to be used for your assistance (if available).
4. The teaching methods, required practical and way of transferring the appropriate knowledge to the students should be demonstrated by attending officer of the training institute at the time course approval.
5. The training institutes must get the individual course approval from Director General of Merchant Shipping and if there are any later changes (e.g. in facilities, equipment, staff) should notify to DGMS immediately if that affect the conduct of the training and/or assessment.
6. The Director General of Merchant shipping must be kept informed of the dates, timing and venue of training programmes so that the examiners can monitor the training at their convenience.
7. Certificates shall be issued only to those trainees who successfully complete the training programme and meet other requirements for the issue of the certificate.
8. Full records of all certificates issued to trainees must be up load to the website and records to be retained by the institute in such a way that authenticity or confirmation of issue of a certificate can be verified at a later stage if necessary.
9. 100% attendance is required for successful completion of the course and if anyone goes below should be notified.
10. Assessment to be carried out at the end of the course.

**Note : 1. Any institute who wish to conduct any of the DGMS approved training programme, they shall get the approvals from ascending order. (Ex. No direct approval for advanced or refresher and updating courses without basic training approvals)**

# **Finalized minimum requirement of equipment's and teaching aids for tankers**

## **BASIC TRAINING FOR OIL AND CHEMICAL TANKER CARGO OPERATIONS**

### **Equipment**

1. Resuscitator (1 Nos)
2. Breathing apparatus (Full set -8 Nos, Extra- 8 Bottles)
3. Portable oxygen meter (1 Nos)
4. Portable combustible-gas detector (1 Nos)
5. Portable tank scope /Multi point flammable gas (infra- red gas analyzer) (1 Nos)
6. Portable toxic-gas detector and chemical absorption tubes (1 Nos)
7. Portable multi gas – detector (1 Nos)
8. Personal multi gas – detector (1 Nos)
9. Tank evacuation equipment. (1 Nos) including Trypod
10. Fixed and Portable Extinguishers

### **Teaching Aids**

#### **IMO Model course 1.01**

#### **Teaching aids (A)**

- A1 Instructor's Manual
- A2 Resuscitator
- A3 Breathing apparatus
- A4 Portable oxygen meter
- A5 Portable combustible-gas detector
- A6 Portable tankscope / Multi point flammable gas (infra- red gas analyzer)
- A7 Portable toxic-gas detector & chemical absorption tubes
- A8 Portable multigas – detector
- A9 Personal multigas – detector
- A10 Tank evacuation equipment.
- A11 Overhead projector for power point presentations
- A12 Oil Tanker Cargo & Ballast Water Handling Simulator
- A13 Chemical Tanker Cargo & Ballast Water Handling Simulator
- A14 White board
- A15 Videos

A16        Firefighting installations

### **Text Book (T)**

T1 Safety in Oil Tankers, International Chamber of Shipping

T2 Safety in Chemical Tankers, International Chamber of Shipping

### **Videos - DVDs, CD ROMs, CBT's (V)**

#### **For Oil Tankers VO(x)**

- VO1        Portable gas detection equipment calibration procedures
- VO2        Tanker safety depends on you
- VO3        Operation and maintenance of inert gas systems
- VO4        The ship/shore interface – petroleum tankers
- VO5        Tanker practices series- cargo - part 4
- VO6        Permit to work
- VO7        Entry into enclosed spaces (edition 2)
- VO8        Personal safety on tankers (edition 2)

#### **For Chemical Tankers VC(x)**

- VC1        FRAMO cargo pumping system - instruction
- VC2        Operation of FRAMO cargo pumping system
- VC3        Static electricity on board tankers - DVD
- VC4        Nitrogen on board chemical tankers - DVD
- VC5        Explosion on board a laden chemical tanker – DVD
- VC6        Chemical tank cleaning & inspection (edition 2)
- VC7        Vapour emission control
- VC8        Don't gamble with safety on chemical tankers

CBT's Eg. SEAGULL

- Liquid cargo properties (CBT # 0032)
- COW (CBT # 0054)
- ODME (CBT # 0055)

## ADVANCED TRAINING FOR OIL TANKER CARGO OPERATIONS

### **Equipment**

1. Resuscitator (1 Nos)
2. Breathing apparatus (Full set -8 Nos, Extra- 8 Bottles)
3. Portable oxygen meter (1 Nos)
4. Portable combustible-gas detector (1 Nos)
5. Portable tankscope/Multi point flammable gas (infra- red gas analyzer) (1 Nos)
6. Portable toxic-gas detector and chemical absorption tubes (1 Nos)
7. Portable multigas – detector (1 Nos)
8. Personal multigas – detector (1 Nos)
9. Tank evacuation equipment. (1 Nos) including Try Pod
10. Fixed and Portable Extinguishers

### **Teaching Aids**

#### **IMO Model course 1.02**

#### **Teaching aids (A)**

- |     |  |
|-----|--|
| A1  | Instructor's Manual  |
| A2  | Resuscitator   |
| A3  | Breathing apparatus  |
| A4  | Portable oxygen meter  |
| A5  | Portable combustible-gas detector  |
| A6  | Portable tankscope / Multi point flammable gas (infra- red gas analyzer) |
| A7  | Portable toxic-gas detector & chemical absorption tubes                  |
| A8  | Portable multigas –detector  |
| A9  | Personal multigas –detector  |
| A10 | Tank evacuation equipment.   |
| A11 | Overhead projector for power point presentations                         |
| A12 | Oil Tanker Cargo & Ballast Water Handling Simulator                      |
| A13 | White board  |
| A14 | Videos   |

**Text Book (T)**

T1 Safety in Oil Tankers, International Chamber of Shipping

**Videos - DVDs, CD ROMs, CBT's (V)****For Oil Tankers VO(x)**

- VO1 Portable gas detection equipment calibration procedures
- VO2 Tanker safety depends on you
- VO3 Operation and maintenance of inert gas systems
- VO4 The ship/shore interface –petroleum tankers
- VO5 Tanker practices series- cargo - part 4
- VO6 Permit to work
- VO7 Entry into enclosed spaces (edition 2)
- VO8 Personal safety on tankers (edition 2)
- VO9 FRAMO cargo pumping system
- VO10 Operation of FRAMO cargo pumping system
- VO11 Static electricity on board tankers
- VO12 Vapour emission control

## ADVANCED TRAINING FOR CHEMICAL TANKER CARGO OPERATIONS

### **Training Facilities & Equipment**

1. Resuscitator (1 Nos)
2. Breathing apparatus (Full set -12 Nos, Extra- 8 Bottles)
3. Portable oxygen meter (1 Nos)
4. Portable combustible-gas detector (1 Nos)
5. Portable tankscope/Multi point flammable gas (infra- red gas analyzer) (1 Nos)
6. Portable toxic-gas detector and chemical absorption tubes (1 Nos)
7. Portable multigas – detector (1 Nos)
8. Personal multigas – detector (1 Nos)
9. Tank evacuation equipment. (1 Nos) including Try Pod
10. Fixed and Portable Extinguishers

### **Teaching Aids**

#### **IMO Model course 1.03**

#### **Teaching aids (A)**

A1 Instructor's Manual

A2 Resuscitator

A3 Breathing apparatus

A4 Portable oxygen meter

A5 Portable combustible-gas detector

A6 Portable tankscope / Multi point flammable gas (infra-red gas analyzer)

A7 Portable toxic-gas detector & chemical absorption tubes

A8 Portable multigas –detector

A9 Personal multigas –detector

A10	Tank evacuation equipment
A11	Overhead projector for power point presentations
A12	Chemical Tanker Cargo & Ballast Water Handling Simulator
A13	White board
A14	Videos

Note: - Other equivalent teaching aids may be used as deemed fit by the instructor.

### **Text Book (T)**

T1 Safety in Chemical Tankers, International Chamber of Shipping, Safety in Chemical Tankers  
(International Chamber of Shipping)

### **Videos - DVDs, CD ROMs, CBT's (V)**

### **For Oil Tankers VO(x)**

VC1	Portable gas detection equipment calibration procedures
VC2	Tanker safety depends on you
VC3	Operation and maintenance of inert gas systems
VC4	The ship/shore interface
VC5	Tanker practices series cargo - part 4
VC6	Permit to work Code
VC7	Entry into enclosed spaces (edition 2)
VC8	Personal safety on tankers (edition 2)
VC9	Static electricity on board tankers
VC10	Vapour emission control Code
VC11	Chemical Fire Hazard Management



## **BASIC TRAINING FOR LIQUEFIED GAS TANKER CARGO OPERATIONS**

### **Equipment**

1. Resuscitator (1 Nos)
2. Breathing apparatus (Full set -12 Nos, Extra- 8 Bottles)
3. Portable oxygen meter (1 Nos)
4. Portable combustible-gas detector (1 Nos)
5. Portable tankscope/Multi point flammable gas (infra- red gas analyzer) (1 Nos)
6. Portable toxic-gas detector and chemical absorption tubes (1 Nos)
7. Portable multigas – detector (1 Nos)
8. Personal multigas – detector (1 Nos)
9. Tank evacuation equipment. (1 Nos) including Try Pod
10. Fixed and Portable Extinguishers

### **Teaching Aids**

#### **IMO Model course 1.04**

#### **Teaching aids (A)**

A1 Instructor's Manual

A2 Multimedia projector

A3 CD Player for Videos

A4 Liquefied Gas Tanker Cargo and Ballast Water Handling Simulator

Note: - Other equivalent teaching aids may be used as deemed fit by the instructor.

#### **Text Book (T)**

T1 SIGTTO, Liquefied Gas Handling Principles on Ships and in Terminals, 3<sup>rd</sup> ed.

## **Videos (VG)**

VG1	An introduction to Liquefied Gas Carriers
VG2	Cargo firefighting on Liquefied Gas Carriers.
VG3	Permit to Work
VG4	Portable Gas detectors
VG5	The chemistry of liquefied gases
VG6	The physics of liquefied gases
VG7	Firefighting, basic and advanced
VG8	Static electricity on board Tankers
VG9	Enclosed space entry-Hazard awareness
VG10	Enclosed space entry- Safe entry procedures
VG11	Enclosed space entry- Rescue drill procedures
VG12	Low temperature insulation on gas carriers
VG13	Gas measurement

## ADVANCED TRAINING FOR LIQUEFIED GAS TANKER CARGO OPERATIONS

### **Equipment**

1. Resuscitator (1 Nos)
2. Breathing apparatus (Full set -12 Nos, Extra- 8 Bottles)
3. Portable oxygen meter (1 Nos)
4. Portable combustible-gas detector (1 Nos)
5. Portable tankscope/Multi point flammable gas (infra- red gas analyzer) (1 Nos)
6. Portable toxic-gas detector and chemical absorption tubes (1 Nos)
7. Portable multigas – detector (1 Nos)
8. Personal multigas – detector (1 Nos)
9. Tank evacuation equipment. (1 Nos) including Try Pod
10. Fixed and Portable Extinguishers

### **Teaching Aids**

#### **IMO Model course 1.05**

#### **Teaching aids (A)**

- A1 Instructor's Manual
- A2 Resuscitator
- A3 Breathing apparatus
- A4 Portable oxygen meter
- A5 Portable combustible-gas detector
- A6 Portable tankscope / Multi point flammable gas (infra- red gas analyzer)
- A7 Portable toxic-gas detector and chemical absorption tubes
- A8 Portable multigas –detector
- A9 Personal multigas –detector
- A10 Tank evacuation equipment.
- A11 Overhead projector for power point presentations
- A12 Liquefied gas Tanker Cargo and Ballast Water Handling Simulator
- A13 White board
- A14 Video player

#### **Text Book (T)**

- T1 Safety in Liquefied gas Tankers, International Chamber of Shipping, Safety in Liquefied gas Tankers. (International Chamber of Shipping)

## **Videos (VG)**

VG1	Portable gas detection equipment calibration procedures
VG2	Tanker safety depends on you
VG3	Operation and maintenance of inert gas systems
VG4	The ship/shore interface
VG5	Tanker practices series cargo - part 4
VG6	Permit to work
VG7	Entry into enclosed spaces (edition 2)
VG8	Personal safety on tankers (edition 2)
VG9	Cargo firefighting on Liquefied Gas Carriers
VG10	Vapour emission control
VG11	Liquefied Gas Fire Hazard Management
VG12	Static electricity on board tankers - DVD
VG13	Low temperature insulation on gas carriers
VG14	Gas measurement
VG15	Gas Tanker Training system, Advanced