The code of practice for conducting
"Basic Training for Oil and Chemical Tanker Cargo Operations"

P6-W7

<table>
<thead>
<tr>
<th>Revision No.</th>
<th>Date of revision</th>
<th>Comment on revision</th>
<th>approving amendments authority</th>
<th>endorsing amendments authority</th>
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<td>01</td>
<td>01.SEP.2014</td>
<td>STCW Convention, as amended</td>
<td>N. Alipour, Head of Seafarers' Standards' Directorate</td>
<td>H. Mirzaei, Director General of Seafarers' Affairs</td>
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Introduction

Ports and Maritime organization (P.M.O) of the Islamic Republic of Iran in performing its duty and in exercising its prerogative resulting from article 192 of the Islamic Republic of Iran's Maritime Code, 1964 and paragraph 10 of Article 3 of P.M.O manifesto, 1970 enabling it to issue any document, certificate or license for ships, masters, officers and other ship personnel and also in accordance with the provisions of the revised International Convention on Standards of Training, Certification and Watch Keeping for Seafarers (STCW as amended) adopted by the Islamic Consultative Assembly in 1996 and taking in to account Regulation V/1-1, paragraph 2 of the mentioned Convention develops this "code of practice for conducting Basic Training for Oil and Chemical Tanker Cargo Operations" which is applicable after endorsement by the board of executives of Ports & Maritime Organization.

NOTE: The title of Ports and Shipping Organization changed to Ports and Maritime Organization dated 2008/04/29 through parliamentary act and approved by Islamic council assembly.
1-Objectives
The objective of this code of practice is to specify the minimum requirements for conducting "Basic Training for Oil and Chemical Tanker Cargo Operations".

2- Scope of application
This code of practice is applicable to all approved training centers that conduct on "Basic Training for Oil and Chemical Tanker Cargo Operations".

3-Definition
For the purpose of this code of practice, unless expressly provided otherwise,

3-1 Approved
Means approved by the Seafarer's Standards Directorate in accordance with the PMO’s Codes of practices.

3-2 Central Monitoring Office
Central monitoring office which is responsible for approving and monitoring training courses is the Seafarer's standard directorate of the PMO.

3-3 Certificate of Competency (COC)
Means a certificate issued and endorsed for masters, officers and GMDSS radio operators in accordance with the provisions of chapters II, III, IV or VII of the STCW Convention and entitling the lawful holder thereof to serve in the capacity and perform the functions involved at the level of responsibility specified therein.

3-4 Chemical tanker
Means a ship constructed or adapted and used for the carriage in bulk of any liquid product listed in chapter 17 of the International Bulk Chemical Code;

3-5 Code of Practice
Means all national rules, regulations and requirements specified in this document which have been drafted by the PMO's General Directorate of Maritime affairs and endorsed by the PMO’s board of executive

3-6 Company
Means the owner of the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the ship owner and who, on assuming such responsibility, has agreed to take over all the duties and responsibilities imposed on the company by these Codes of practices.
3-7 Convention
Means international convention on standards of training, certification and watch keeping for Seafarers, 1978, as amended.

3-8 Course Completion Certificate or Documentary Evidence
Means a certificate issued through the training center, after successfully completion of training program by the applicants.

3-9 Function
Means a group of tasks, duties and responsibilities, as specified in the STCW Code, necessary for ship operation, safety of life at sea or protection of the marine environment.

3-10 Gross Tonnage
Means the volume of all enclosed spaces of a vessel calculated in accordance with relevant regulations.

3-11 Liquefied gas tanker:
Means a ship constructed or adapted and used for the carriage in bulk of any liquefied gas or other product listed in chapter 19 of the International Gas Carrier Code.

3-12 Master
Means the person having command of a ship.

3-13 Medical Fitness Certificate
Means a certificate issued by the PMO's recognized medical practitioner to the candidates who found to be medically fit.

3-14 Merchant Ship
Means any ship (other than servicing vessel, mobile offshore platform, fishing and naval ships) used for carriage of cargoes, passenger and/or provisions.

3-15 Month
Means a calendar month or 30 days made up of periods of less than one month.

3-16 Officer
Means a member of the crew, other than the master, designated as such by national law or regulations or, in the absence of such designation, by collective agreement or custom.

3-15- Oil tanker
Means a ship constructed and used for the carriage of petroleum and petroleum products in bulk.
3-17 On Board Training Record Book
Means on board training record book approved by Port and Maritime Organization in which practical and theoretical training of seafarer shall be fulfilled according to its content.

3-18 PMO
Means Ports & Maritime Organization (PMO) of the Islamic Republic of Iran

3-19 Rating
Means a member of the ship’s crew other than the master or an officer.

3-20 Regulations
Means regulations contained in the annex to the STCW Convention

3-21 Seagoing service
Means service on board a ship relevant to the issue or revalidation of a certificate or other qualification.

3-22 Seagoing Service/Documentary Evidence
Means approved sea going service required to be presented for participating in a training course, maritime examination and issuance of certificate. These documentary evidence should be inserted in CDC and authenticated by company or ship owner or ship owner's associations and in addition be presentable in a form of computer sheet, official letter or other forms as defined in the annex to this code of practice.

3-23 Seagoing Ship
Means a ship other than those which navigate exclusively in inland waters or in waters within, or closely adjacent to, sheltered waters or areas where port regulations apply.

3-24 STCW Code
Means the seafarers' training, certification and watch keeping (STCW ) code as adopted by the 1995 conference resolution 2,as it may be amended by the international maritime organization.

3-25 Training center
Means maritime university/center/ directorate/ department/company and/or any organization conducting maritime training course approved by PMO

3-26 Unlimited Voyages
Means voyages not limited to the near coastal voyages.
4-Responsibilities:
4-1 Central monitoring office is responsible for revising this code of practice.
4-2 General Director of Seafarers' Affairs is responsible for approving amendments to this code of practice.
4-3 Deputy of maritime affairs is responsible to endorse amendments to this code of practice on behalf of PMO's board of executive.
4-4 Training centers are to conduct training course in accordance with this Code of practice.
4-5 Central monitoring office is responsible for supervising the implementation of this code of practice in training centers.

5 Procedures:

5-1 Course Objective
The objective of this training course is to prepare trainees to achieve competencies set out in the column 1 of table A-V/1-1-1 of the STCW Code.

5-2- Course Duration:
5-2-1 Minimum of 36 hours (28 hrs. theoretical & 8 hrs. practical) for each trainee.
5-2-2 Maximum daily contact hours for each trainee are 8 hours.

5-3- Number of Trainees:
5-3-1 The maximum number of trainees in each course is 20.
5-3-2 The number of trainees may be increased to 30 when the relevant facilities, teaching aids and class-room space are increased as per criteria set out in the code of practice for approving and monitoring training courses and is approved by the central monitoring office.

5-4- Course Entry Requirements:
The course trainees should, at least;
5-4-1 Be not less than 18 years of age;
5-4-2 Hold valid Medical Fitness Certificate, issued in accordance with the provisions of the relevant code of practice;
5-4-3 Hold valid certificate of proficiency in Basic Training on ships of GT≥500, engaged on unlimited voyages
5-5-Expected knowledge, understanding and proficiency:

1. Basic knowledge of tankers
2. Basic knowledge of cargo operations
3. Basic knowledge of the physical properties of oil and chemicals
4. Knowledge and understanding of tanker safety culture and safety management
5. Basic knowledge of the hazards associated with tanker operations
6. Understanding of information on a Material Safety Data Sheet (MSDS)
7. Function and proper use of gas-measuring instruments and similar equipment
8. Basic knowledge of safe working practices and procedures in accordance with legislation and industry
9. Procedures for entry into enclosed spaces are observed
10. Procedures and safe working practices designed to safeguard personnel and the ship are observed at all times
11. Basic knowledge of first aid with reference to a Material Safety Data Sheet (MSDS)
12. Tanker fire response organization and action to be taken
13. Basic knowledge of emergency procedures
14. Basic knowledge of shipboard procedures to prevent pollution
15. Basic knowledge of measures to be taken in the event of spillage
16. Basic knowledge of the effects of oil and chemical pollution on human and marine life
5-6- Course Minimum Syllabi:

<table>
<thead>
<tr>
<th>Knowledge, understanding and proficiency</th>
<th>Theoretical</th>
<th>Practical</th>
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<tbody>
<tr>
<td>1- Contribute to the safe cargo operation of oil and chemical tankers:</td>
<td>(8.0 hours)</td>
<td>(1.0 hour)</td>
</tr>
<tr>
<td>Basic knowledge of tankers:</td>
<td></td>
<td></td>
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<tr>
<td>.1 types of oil and chemical tankers</td>
<td></td>
<td></td>
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<tr>
<td>.2 general arrangement and construction</td>
<td></td>
<td></td>
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<tr>
<td>Basic knowledge of cargo operations:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.1 piping systems and valves</td>
<td></td>
<td></td>
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<tr>
<td>.2 cargo pumps</td>
<td></td>
<td></td>
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<tr>
<td>.3 loading and unloading</td>
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<tr>
<td>.4 tank cleaning, purging, gas-freeing and inerting</td>
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<tr>
<td>Basic knowledge of the physical properties of oil and chemicals:</td>
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<tr>
<td>.1 pressure and temperature, including vapour pressure/temperature relationship</td>
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<tr>
<td>.2 types of electrostatic charge generation</td>
<td></td>
<td></td>
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<tr>
<td>.3 chemical symbols</td>
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<tr>
<td>Knowledge and understanding of tanker safety culture and safety management</td>
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<tr>
<td>2- Take precautions to prevent hazards:</td>
<td>(8.0 hours)</td>
<td>(1.0 hour)</td>
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<tr>
<td>Basic knowledge of the hazards associated with tanker operations, including:</td>
<td></td>
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<tr>
<td>.1 health hazards</td>
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<td>.2 environmental hazards</td>
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<td>.3 reactivity hazards</td>
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<td>.4 corrosion hazards</td>
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<tr>
<td>.5 explosion and flammability hazards</td>
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6. sources of ignition, including electrostatic hazards
7. toxicity hazards
8. vapour leaks and clouds

Basic knowledge of hazard controls:
1. inerting, water padding, drying agents and monitoring techniques
2. anti-static measures
3. ventilation
4. segregation
5. cargo inhibition
6. importance of cargo compatibility
7. atmospheric control
8. gas testing

Understanding of information on a Material Safety Data Sheet (MSDS)

3- Apply occupational health and safety precautions and measures:
(6.0 hours) (2.0 hours)

Function and proper use of gas-measuring instruments and similar equipment

Proper use of safety equipment and protective devices, including:
1. breathing apparatus and tank-evacuating equipment
2. protective clothing and equipment
3. resuscitators
4. rescue and escape equipment

Basic knowledge of safe working practices and procedures in accordance with legislation and industry
guidelines and personal shipboard safety relevant to oil and chemical tankers, including:

1. Precautions to be taken when entering enclosed spaces
2. Precautions to be taken before and during repair and maintenance work
3. Safety measures for hot and cold work
4. Electrical safety
5. Ship/shore safety

Procedures for entry into enclosed spaces are observed.
Procedures and safe working practices designed to safeguard personnel and the ship are observed at all times.
Appropriate safety and protective equipment is correctly used.
Basic knowledge of first aid with reference to a Material Safety Data Sheet (MSDS)

4. Carry out fire-fighting operations:
   - Tanker fire response organization and action to be taken
   - Fire hazards associated with cargo handling and transportation of hazardous and noxious liquids in bulk
   - Fire-fighting agents used to extinguish oil and chemical fires
   - Fixed fire-fighting foam system operations
   - Portable fire-fighting foam operations
   - Fixed dry chemical system operations
   - Spill containment in relation to fire-fighting operations

5. Respond to emergencies:
   - Basic knowledge of emergency procedures, including emergency shutdown
6- Take precautions to prevent pollution of the environment from the release of oil or chemicals:

| Basic knowledge of the effects of oil and chemical pollution on human and marine life |
| Basic knowledge of shipboard procedures to prevent pollution |
| Basic knowledge of measures to be taken in the event of spillage, including the need to: |
| .1 report relevant information to the responsible persons |
| .2 assist in implementing shipboard spill-containment procedures |

Total: (36.0 hours) (4.0 hours) (28.0 hrs.) (8.0 hrs.)

5-7 Facilities and Equipment Required for Conducting the Course

Apart from those facilities, equipments and or requirements mentioned in Code of practice for approval and monitoring of maritime training courses followings have to be provided:

1. Classroom with air conditioning facilities, sufficient lighting and other facilities, suitable for delivering theoretical subjects (such as: white board, computer, multimedia projector and its curtain)
2. Library with related technical books and references such as IMDG code, IBC code, ISGOTT/SIGTTO, OCIMF and IGS/ICS data Sheets necessary for conducting the training course
3. Relevant educational and training films
4. An appropriate workshop for conducting the practical training
5. A complete set of personnel safety equipment,
6. A set of appropriate protective equipment,
7. A breathing apparatus with strainer for emergency escapes, along with all types of strainer or filters,
8. An ordinary breathing apparatus for emergency escapes,
9. A gas indicator tubes,
10. A portable gas detector,
11. A portable combustible gas indicator,
12. A portable oxygen meter,
13. Various kinds of oil,
14. resuscitator(oxygen type)
15. breathing apparatus used for emergency escape,
16. portable oxygen meter
17. portable interference detector,
18. Toxic gas detector and tank escape equipment.
19. equipment for escape from a tank,
20. stretcher,
21. Chemical absorption tubes for detection of toxic gases such as benzene, carbon monoxide and hydrogen sulphide.
22. Different gas samples for conducting the practical training
23. First aid and medical emergency equipment such as first aid kit and satchel, oxygen cylinder and mask.

5-8- Lecturers and instructors minimum qualifications:

5-8-1 Lecturers and instructors shall have completed a course in instructional techniques (TFT) in one of the training centers approved by the PMO, and:

5-8-1-1 Hold valid Master CoC on ships of GT≥3000 engaged on unlimited voyages, or Chief engineer CoC on ships of KW≥3000 engaged on unlimited voyages and 12 months of approved sea service at management level on oil or chemical tankers; and

5-8-1-2 Hold valid certificates of proficiencies in advanced trainings for oil tanker cargo operations or certificates of proficiencies in advanced trainings for chemical tanker cargo operations.
5-9- Assessment and Certification:
5-9-1 Upon successful completion of the examination which is carried out during and at the end of the course, the trainee will be awarded relevant course completion certificate issued by the approved training center; and

5-9-2 Seafarers’ Examination and Documents Directorate of the PMO will issue a CoP for those candidates who have successfully completed the above mentioned training course and fulfill other relevant certification requirements set out in the “Codes of practices for issuing, revalidating and renewing certificates for seafarers”.

5-10- Revalidation and renewal of certificate:
5-10-1 CoPs, CoCs and Certificates will be revalidated and renewed in accordance with provisions of the Code of practice for issuing, revalidating and renewing certificates for seafarers.

5-11- Course approval:
5-11-1 It will be carried out as per code of practice for approval and monitoring of maritime training courses.

6- Records:
6-1 All records which present the implementation of the content of this code of practice.

7- References:
7-1- STCW Convention and STCW Code, as amended
7-2- IMO Model Courses No.1.01
7-3- MARPOL Convention, as amended
7-4- ISGOTT/SIGTTO
7-5- IBC code
7-6- IMDG CODE
7-7- ICS/IGS CODE
7-8- OCIMF
7-9- Codes of practices for issuing, revalidating and renewing certificates for seafarers
7-10- Code of practice for approval and monitoring of maritime training courses

8- Appendix:
Nil.