

## Training Circular No. 1 of 2000

No.3-TR(16)/2000

Dated: May31, 2001

**Sub: Upgradation of STCW78 Specialized Oil Tanker Safety Course to STCW'95**

"The certificates issued under STCW'78 for Specialized Oil Tanker Safety Course can be upgraded and upgradation certificate may be issued by the training institute conducting the upgradation Course after the candidate has successfully undergone the Specialised Oil Tanker Safety Upgradation course of two days (12 lecture hours) duration".

The result of comparison between the old course and the new course showing the items deficient in the old course is enclosed herewith as **Annex A.**

A model course-outline and a model time-table for guidance are also enclosed as **Annex B & C** respectively. However the institutes may modify the same as long as all the items listed are duly covered. Proposal for this course may be forwarded to this Directorate in the prescribed manner for approval.

The Upgradation Certificate may be issued provided :-

1. The authenticity of the old certificate is verified by the Institute providing the Upgradation Course from the institute which issued the original certificate.
2. The identity of the candidate is verified from the entries on the previous certificate and present documents.
3. A list of such certificates issued is circulated to all concerned as is the case with the issuance of new certificates.

For the sake of uniformity : 1. The Specimen certificate for the Upgradation is enclosed herewith as **Annex D.**

2. In the format of the certificate, the terms course officer and/or Dean/Principal may be replaced by the

corresponding authority in the institute.

3. The names of the persons signing as or equivalent of Course Officer and Dean/Principal must be entered on the certificate.

**Sd/-**

**(Rajiv K. Gupta)**  
**Asstt. Director General of Shipping**

**Annex- A**

## **PART C : DETAILED TEACHING SYLLABUS**

### **1. INTRODUCTION**

Required Performance :

#### **1.1 Oil Tankers**

1.16 Describes the features of a double-hull tanker

#### **1.2 International & National regulations concerning oil tankers**

1.2.3 States that the conventions directly affecting ships & shipping activities are the conventions SOLAS 1974, MARPOL 73/78 as amended and STCW as amended in 1995.

1.2.6 Defines STCW 1995 as the International Convention for Standards of training, Certification and Watch keeping, 1995.

1.2.7 States that Oil Tankers are affected by STCW 1995.

1.2.8 States that Oil Tankers are affected by STCW 1995.

1.2.11 States that a Safety Management System in compliance with the ISM Code must be in place on board all tankers of 500 gt and upwards.

### **2. BASIC PROPERTIES OF PETROLEUM ANMD ITS HAZARDS**

#### **2.3 Hazards associated with handling and carriage of petroleum**

2.3.15 States that leaded gasoline and considerably more toxic than unleaded gasoline if ingested or absorbed through the skin but there is a little difference between toxicity of vapours of leaded and unleaded petroleum.

2.3.35 States that if oxygen is less than 21% atmosphere may be extremely dangerous unless it is known which gas has replaced the Oxygen.

### **3. SAFETY**

3.2 Entry into enclosed spaces

3.2.1 Explains that the ships SMS requires special procedures to be followed if entering into enclosed space.

### **4. POLLUTION PREVENTION**

4.1 Ship & Equipment

4.1.1.6 Emergency towing arrangement

4.5 Air Pollution

4.5.7 Recognizes special procedure apply when loading or discharging using vapour emission control system

### **5. OIL TANKER DESIGN & EQUIPMENT**

5.1 **Construction**

5.1.21 States that there are requirements on the limitations of tank size.

5.1.26 States that tankers aged 5 years and over are subject to an enhanced inspection programme.

**5.2 Pumping, piping and discharge arrangements**

5.2.12 Lists the main types of cargo pump and explain the advantages of deep-well pumps.

5.2.19 States that centrifugal pumps may be driven by steam turbine, by electricity or by direct drive diesel motor.

5.2.33 Explains why many deep-well pumps do not have non-return valves.

### **6. OIL TANKERS OPERATIONS**

6.2 Loading & Discharging operations

6.2.18 States that special procedure apply for ship-to-ship transfers.

## 6.3 Ballasting & deballasting

6.3.34 States that particular care must be taken when ballasting some double hull tankers due to possible loss of stability.

## 7. CARGO & BALLAST PUMP

### 7.1 Pump Theory & Characteristics

7.1.26 Explains the danger of running two or more pumps in parallel if their Characteristics are not exactly the same or if the pumps are running at different speeds.

## 8. EMERGENCY PROCEDURES

### 1.1 Emergency Plan

1.1.1 States that every Oil tanker greater than 150 tonnes must have a shipboard Oil Pollution Emergency Plan (SOPEP)

## 2. INERT GAS SYSTEMS

### 9.3 Inert Gas Plant

9.3.3 States that boiler load in many ships also be increased by due dumping steam directly to the condenser.

### 9.4 Inert Gas Blowers

9.5.2 States that in generator systems one blower may be permitted provided sufficient spares are carried.

## Annex B

REFRESHER & UPDATING TRAINING FOR SPECIALISED OIL TANKER SAFETY COURSE ( COURSE DURATION 2 DAYS )			
Course Outline			
DAY ONE			
Sr. No.	Subject Area	Hours	
		Lecture	Demo
1.	INTRODUCTION & STCW EQUIREMENTS	1 Hour	
1.1	Introduction	20 min.	--
1.2	STCW Convention & Code	10 min.	--
1.3	Impact on Seafarers	20 min.	--
2.	AMENDMENT TO MARPOL 73/78	1 HOUR	

2.1	Marpol Annex -I	15 min.	--
2.2	Marpol Annex -IV	05 min	--
2.3	Marpol Annex-V	10 min.	--
2.4	Marpol Annex VI	10 min	--
2.5	Proposed Annex VII & VIII	20 min	--
3.	DOUBLE HULL TANKERS	3 Hour	
3.1	Regulation on 13 on Double-hull Tankers	20 min.	--
3.2	Other designs of Double-hull tankers	20 min.	--
3.3	Disadvantages of Double-hull tankers	20 min.	--
3.4	Stability consideration of Double-hull tankers	20 min.	--
3.5	Safety precautions on double-hull tankers	20 min.	--
3.6	Sizes of cargo tanks, etc.	20 min	--
3.7	Case histories/Interactions/Group Discussions	60 min.	--
4.	ENHANCED SURVEYS	1 Hour	
4.1	Annual; Surveys	20 min	--
4.2	Special Surveys	20 min.	--
4.3	Corrosion trend & Coatings to use	20 min.	--
5.	CARGO CALCULATIONS	2 Hours	
5.1	API, ASTM, SG etc.- Terminology	20 min.	--
5.2	Tank Tables	20 min.	--
5.3	Cargo Calculation Practice	20 mi.	--
5.4	Cargo Calculation Practice	60 min.	--
6.	EMERGENCY OWING ARRANGEMENTS	1 Hour	
6.1	Regulation No. SOLAS	60 min.	--
6.2	Application onboard on tankers	60 min.	--
7.	VAPOUR CONTROL SYSTEM	1 Hour	
7.1	Construction/Regulation	30 min.	--
7.2	Safety Precaution	30 min.	--
8.	DEEPWELL PUMPS & VACUUM PUMPS, ETC.	1 Hour	
8.1	Pumps of products tankers	20 min.	--
8.2	Submersible pumps	20 min	-
8.3	Vaccum strip pump	20 min.	--
9.	SOPEP	1 Hour	
9.1	Regulation No. 26 & Important Items	10 min.	--
9.2	Application of SOPEP	20 min.	--
9.3	Interaction	25 min.	--
9.4	Civil liability in case of oil pollution	05 min	--
	Sub-Total	12.0 Hours	0.0. Hours
	<b>GRAND TOTAL</b>	12.0 Hours	

### Annex C

SPECIALIZED TANKER UPGRADATION COURSE		
TIME TABLE		
TIME	DAY-I	DAY-2
	LECTURE-01	LECTURE-07
0900 to 1000	STCW Convention & Codes and impact on seafarers	Cargo Calculation

	<b>LECTURE-02</b>	<b>LECTURE-08</b>
1000 to 1100	Amendments to MARPOL 73/78	Cargo Calculations
	<b>LECTURE-03</b>	<b>LECTURE-09</b>
1100 to 1200	MARPOL Regulations Double Hull Tankers	Emergency Towing Arrangements
1200 to 1300	<b>LUNCH TIME</b>	
	<b>LECTURE-04</b>	<b>LECTURE-10</b>
1300 to 1400	Disadvantages of Double Hull Tankers  Safety precautions on Double Hull Tankers	Vapour Control System
	<b>LECTURE-05</b>	<b>LECTURE-11</b>
1400 to 1500	Stability Consideration of Double Hull Tankers	Vacuum Strip Pumps  Deepwell Pumps  Submersible Pumps
	<b>LECTURE-06</b>	<b>LECTURE-12</b>
1500 to 1600	Enhanced Surveys Corrosion Trends in Tanks	<b>SOPEP</b>

**Annex-D**

**NAME and ADDRESS of the TRAINING Institution**

**Tel:**

**Fax:**

**E-Mail:**

THIS IS TO CERTIFY THAT ( full name of candidate )

Date of Birth \_\_\_\_\_

Holder of CDC No. \_\_\_\_\_ and passport No. \_\_\_\_\_

Certificate of Competency, Grade \_\_\_\_\_ No. \_\_\_\_\_

Indian National Data Base (INDos No. ) \_\_\_\_\_

Holds Certificate No. \_\_\_\_\_ dated \_\_\_\_\_ for specialized Oil Tanker Safety Course

Issued by \_\_\_\_\_ - ( name and location of the previous institute )

He has undergone refresher and Updating Training approved by the Directorate General of Shipping and now meets the requirements laid down in :

STCW 95 Reg.V/I Para 2.2 and STCW Code A-V/I para 8 to 14 in respect of

**SPECIALIZED TRAINING PROGRAMME ON OIL TANKER OPERATIONS**

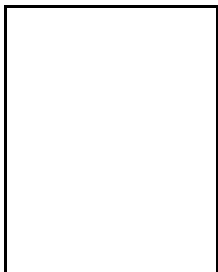
The candidate has also met the additional criteria specified in the STCW Convention, applicable to the issue of the certificate.

This certificate is issued under the authority of the Directorate General of Shipping, Ministry of Surface Transport, Govt. of India.

Signature of candidate

course officer

Issued at (place) this (date) day of (month) (year)



Dean/Principal