# **TPTI STANDARDS**

**Offshore Lifeboat Coxswain** 

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AMENDMENTS				
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Any amendments made to this standard by TPTI will be recorded above.

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# GLOSSARY

ACOP BOST	Approved Code of Practice Basic Offshore Safety Training
FOT	Further Offshore Training
DMF	Department of Mineral Fuels
HASAWA	Health & Safety at Work Act
HS&E	Health, Safety & Environment
PPE	Personal Protective Equipment
OPITO	Offshore Petroleum Industry Training Organization
TEMPSC	Totally Enclosed Motor Propelled Survival Craft
TPTI	Technical Petroleum Training Institute

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## Offshore Lifeboat Coxswain

### Introduction

This standard was developed by TPTI in conjunction with a workgroup representing the interests of the offshore oil & gas industry in Thailand.

This document introduces and describes the core competence and emergency training requirements for personnel who are assigned to offshore lifeboat coxswain duties.

The industry recognizes that a major objective is to prevent incidents occurring and if they do occur, to control them and minimize their effect. It is important therefore to set common standards and to ensure that they are maintained.

The attainment of competency will require personnel to demonstrate both theoretical knowledge and practical skills. Dependent upon the experience of personnel, the following steps in training and assessment must be undertaken:

- 1. Basic training and knowledge assessment carried out at a **TPTI** approved training establishment.
- 2. Ongoing development and skills enhancement

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## Offshore Lifeboat Coxswain

## A.1 Target Group

This program is designed to meet the requirements for the certification of assigned offshore lifeboat coxswains working on rigs, FPSO's, construction barges, diving vessels and other floating assets used in Exploration and Production operations in Thailand.

#### This Offshore Lifeboat Coxswain Standard contains:

Learning Outcomes Training Program Content Statements on: Assessment Further Training / Assessment

#### This Standard consists of the following modules:

- Emergency response arrangements offshore
- The role of the offshore lifeboat coxswain and how to be prepared for emergencies
- Operation of the davits and the brake; common faults and potential solutions
- The launching and release mechanisms of the TEMPSC
- Continual assessment of TEMPSC readiness
- How to brief passengers in an emergency
- The different types and uses of PPE
- Characteristics of mechanical restraints
- Suspension systems on the TEMPSC and how to maintain stability of the craft on the hooks
- Communications methods and equipment
- How weather and sea state conditions affect the launch of the TEMPSC
- Hazards that may occur in boarding the craft and in launching the craft
- How to determine a safe area
- Degrees on a compass and steering towards a specific heading
- How weather and sea state conditions affect the path and holding pattern of the TEMPSC
- Maintaining communications between all parties involved in the emergency
- How weather and sea state conditions affect the transfer of personnel
- How to keep injured personnel comfortable and affect their transfer
- Further evacuation procedures & how to assist

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## Offshore Lifeboat Coxswain

## A.2 Delegate Prior Achievement

Attendance on the Offshore Lifeboat Coxswain training program is open to delegates who are in possession of either a current BOST or FOT certificate.

## A.3 Learning Outcomes

Following a series of explanations, demonstrations and opportunities to practice, delegates will be assessed as a delegate against the following learning outcomes:

#### Delegates will demonstrate awareness of :

- a) Emergency response arrangements offshore
- b) The role of the offshore lifeboat coxswain and how to be prepared for emergencies

# Delegates will explain/identify: (testing knowledge)

- a) Operation of the davits and the brake; common faults and potential solutions
- b) The launching and release mechanisms of the TEMPSC
- c) Continual assessment of TEMPSC readiness
- d) How to brief passengers in an emergency
- e) The different types and uses of PPE
- f) Characteristics of mechanical restraints
- g) Suspension systems on the TEMPSC and how to maintain stability of the craft on the hooks
- h) Communications methods and equipment
- i) How weather and sea state conditions affect the launch of the TEMPSC
- j) Hazards that may occur in boarding the craft and in launching the craft
- k) How to determine a safe area
- I) Degrees on a compass and steering towards a specific heading
- m) How weather and sea state conditions affect the path and holding pattern of the TEMPSC
- n) How to maintain communications between all parties involved in the emergency
- o) How weather and sea state conditions affect the transfer of personnel
- p) How to keep injured personnel comfortable and affect their transfer
- q) How to manage further evacuation procedures & how to assist

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# Offshore Lifeboat Coxswain

## **A.3** Learning Outcomes (continued)

# Delegates will demonstrate practically: (testing skills and knowledge)

- a) Check the external and internal integrity of the TEMPSC
- b) Remove mechanical restraints to enable launch of the TEMPSC
- c) Start the engine
- d) Board passengers as quickly as possible
- e) Confirm the launch area is clear
- f) Brief the crew and obtain permission to launch
- g) Release the lowering mechanism
- h) Secure the hatches and turn on the air and water spray protection systems
- i) Clear the installation on course for a safe area
- j) Pace alongside a vessel for transfer of personnel
- k) Decide when and how to use the sea anchor
- I) Carry out man overboard procedures if any personnel are in the water
- m) Maintain the safety of the TEMPSC passengers
- n) Tow another vessel
- o) Be towed by another vessel
- p) Carry out steering procedures to avoid other situations that might occur
- q) Carry out the order for disembarkation and how to get passengers to a rescue craft

## A.4 Training Program

The training program outlined below will assist delegates to meet the stated training outcomes.

In order to make efficient use of time and ensure effective learning, the three phases of explanation, demonstration and practice should be integrated wherever practicable. To facilitate the most effective learning, the practical part will always succeed the theoretical part of the training.

Full use should be made of visual/audio-visual aids and course handout materials.

Practical exercises should be designed and delivered solely to meet these standards and must not place on delegates any physical or mental demands other than those required to meet the standard.

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# Offshore Lifeboat Coxswain

# **A.4** Training Program (continued)

### 1. General Coxswain & TEMPSC Knowledge

#### Give an overview of:

- a) Offshore emergency response arrangements
- b) Role of the TEMPSC Coxswain
- c) Preparing oneself
- d) Offshore drills and exercises

#### Give a detailed explanation of:

- a) Operation of the davits and the brake; common faults and potential solutions
- b) The launching and release mechanisms of the TEMPSC
- c) Continual assessment of TEMPSC readiness (e.g.)
  - Engine starting on first attempt
  - Full fuel tank
  - Full battery
  - First Aid kit
  - Drinkable water stock
  - Water spray protection system operational
- d) Briefing of small groups of passengers on the TEMPSC craft

### 2. Maintaining Readiness & Preparing The TEMPSC

#### Give an explanation and demonstration of, then delegates to practice:

- a) Checking the external integrity of TEMPSC
- b) Checking the internal integrity of TEMPSC
- c) Removal of mechanical restraints which prohibit launch
- d) Constraints to boarding of the TEMPSC
- e) Starting of the TEMPSC engine
- f) Boarding of the TEMPSC

### Key topics Include:

- PPE
- Survival craft and equipment
- Suspension systems
- Embarkation
- Stability considerations

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# Offshore Lifeboat Coxswain

# **A.4** Training Program (continued)

## 3. Preparation & Launching Of The TEMPSC

#### Give an explanation and demonstration of, then delegates to practice:

- a) Establishing communications
- b) Checking and confirming that the launch area is clear
- c) Operations of the lowering mechanism
- d) Operation of the release mechanism

#### Key topics Include:

- Securing of hatches
- Air and water spray protection systems
- Course determination, clearing a vessel or installation
- Safe areas (safe havens)
- Crew briefing
- Launch orders
- Weather conditions
- Sea state
- Recovery of the TEMPSC, to include astern manoeuvring
- Hazards that may be encountered

### 4. Moving The TEMPSC To A Safe Area

#### Give an explanation and demonstration of, then delegates to practice:

- a) Selecting a course
- b) Steering the selected course
- c) Determining the safe area
- d) Maintaining TEMPSC in the safe area

### Key topics Include:

- Compass When explaining the compass, emphasis is to be placed upon compasses marked in degrees. An overview only should be given when describing a compass marked in points.
- Communications and equipment
- Weather conditions and sea state
- Sea anchor
- Retrieval of personnel from water
- Safety of personnel onboard the TEMPSC
- Towing and being towed
- Preparation for transfer of personnel
- Emergency steering

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# Offshore Lifeboat Coxswain

# **A.4** Training Program (continued)

## 5. Disembarking & Transferring Of Personnel from The TEMPSC

#### Give an explanation and demonstration of, then delegates to practice:

- a) Preparing to disembark
- b) Disembarking personnel

#### Key topics Include:

- Communications
- Weather and sea state
- Injured personnel
- By sea to the rescue craft

## A.5 Duration of Initial Training

The optimum 'contact time' for this training and assessment is seen as 28 hours.

It is suggested that a ratio of 25% : 75% theory/practical is appropriate.

- The total contact time per day shall not exceed 8 hours
- The total training day shall not exceed 10 hours

The total training day includes

- Contact time
- Coffee & meal breaks
- Travel time between training sites where applicable

Assessments, both written and practical, will be conducted after the training program is finished.

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# **Offshore Lifeboat Coxswain**

## A.6 Assessment of Initial Training

Assessments will be conducted by TPTI approved training providers.

Assessment of the candidate's performance will be against the stated learning outcomes and will involve both written and practical assessments. The written assessment will be administered by TPTI and the practical assessment will be conducted by TPTI accredited assessors.

Delegates attending this training and assessment program (referred to as candidates during assessment) will be given a series of explanations and demonstrations which will identify what they are expected to know and do. This will be followed by practical exercises which will allow delegates to demonstrate their skills, knowledge and understanding of Offshore Lifeboat Coxswain.

Assessment of the candidate's performance will be against the stated learning outcomes and will involve both written and practical assessments. Candidates who achieve a score of 70% or higher and pass the practical assessment, will be issued a TPTI renewal certificate.

If the candidates fail to achieve a score of 70% or fail the practical assessment, they will be given further time and opportunity to enable them to reach the standard leading to the award of a certificate within the duration of the course. If the candidates still cannot pass the assessment after several attempts within the duration of the course, they will have to retake the Offshore Lifeboat Coxswain course.

## A.7 Further Training / Assessment

The initial Offshore Lifeboat Coxswain certificate is valid for a period of three years. The Further Offshore Lifeboat Coxswain is conducted at TPTI Approved Training Centres and is undertaken by all offshore lifeboat coxswain and should be completed every three years

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# Further Offshore Lifeboat Coxswain

## B.1 Target Group

This program is designed to meet the requirements for the recertification of assigned offshore lifeboat coxswains working on rigs, FPSO's, construction barges, diving vessels and other floating assets used in Exploration and Production operations in Thailand.

#### This Offshore Emergency Response Team Leader Standard contains:

Learning Outcomes Training Program Content Statements on: Assessment Further Training / Assessment

#### This Standard consists of the following modules:

- Operation of the davits and the brake; common faults and potential solutions
- The launching and release mechanisms of the TEMPSC
- How to brief passengers in an emergency
- Characteristics of mechanical restraints
- Suspension systems on the TEMPSC and how to maintain stability of the craft on the hooks
- Communications methods and equipment
- How weather and sea state conditions affect the launch of the TEMPSC
- Hazards that may occur in boarding the craft and in launching the craft
- How to determine a safe area
- How weather and sea state conditions affect the path and holding pattern of the TEMPSC
- Maintaining communications between all parties involved in the emergency
- How weather and sea state conditions affect the transfer of personnel
- How to keep injured personnel comfortable and affect their transfer
- Further evacuation procedures & how to assist

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## Further Offshore Lifeboat Coxswain

## **B.2** Delegate Prior Achievement

Attendance on the Further Offshore Lifeboat Coxswain training program is open to delegates who are in possession of either a current BOST or FOST certificate and hold a current offshore lifeboat coxswain certificate.

## **B.3** Learning Outcomes

Following a series of explanations, demonstrations and opportunities to practice, delegates will be assessed as a delegate against the following learning outcomes:

# Delegates will explain/identify: (testing knowledge)

- a) Operation of the davits and the brake; common faults and potential solutions
- b) The launching and release mechanisms of the TEMPSC
- c) Continual assessment of TEMPSC readiness
- d) How to brief passengers in an emergency
- e) Characteristics of mechanical restraints
- f) Suspension systems on the TEMPSC and how to maintain stability of the craft on the hooks
- g) Communications methods and equipment
- h) How weather and sea state conditions affect the launch of the TEMPSC
- i) Hazards that may occur in boarding the craft and in launching the craft
- j) How to determine a safe area
- k) How weather and sea state conditions affect the path and holding pattern of the TEMPSC
- I) How to maintain communications between all parties involved in the emergency
- m) How weather and sea state conditions affect the transfer of personnel
- n) How to keep injured personnel comfortable and affect their transfer
- o) How to manage further evacuation procedures & how to assist

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# Further Offshore Lifeboat Coxswain

## **B.3** Learning Outcomes (continued)

# Delegates will demonstrate practically: (testing skills and knowledge)

- a) Check the external and internal integrity of the TEMPSC
- b) Remove mechanical restraints to enable launch of the TEMPSC
- c) Start the engine
- d) Board passengers as quickly as possible
- e) Confirm the launch area is clear
- f) Brief the crew and obtain permission to launch
- g) Release the lowering mechanism
- h) Secure the hatches and turn on the air and water spray protection systems
- i) Clear the installation on course for a safe area
- j) Pace alongside a vessel for transfer of personnel
- k) Decide when and how to use the sea anchor
- I) Carry out man overboard procedures if any personnel are in the water
- m) Maintain the safety of the TEMPSC passengers
- n) Tow another vessel
- o) Be towed by another vessel
- p) Carry out steering procedures to avoid other situations that might occur
- q) Carry out the order for disembarkation and how to get passengers to a rescue craft

## **B.4** Training Program

The training program outlined below will assist delegates to meet the stated training outcomes.

In order to make efficient use of time and ensure effective learning, the three phases of explanation, demonstration and practice should be integrated wherever practicable. To facilitate the most effective learning, the practical part will always succeed the theoretical part of the training.

Full use should be made of visual/audio-visual aids and course handout materials.

Practical exercises should be designed and delivered solely to meet these standards and must not place on delegates any physical or mental demands other than those required to meet the standard.

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# Further Offshore Lifeboat Coxswain

## **B.4** Training Program (continued)

#### 1. General Coxswain & TEMPSC Knowledge

#### Give an overview of:

- a) Operation of the davits and the brake; common faults and potential solutions
- b) The launching and release mechanisms of the TEMPSC
- c) Continual assessment of TEMPSC readiness (e.g.)

#### 2. Maintaining Readiness & Preparing The TEMPSC

#### Give an overview of:

- a) Checking the external integrity of TEMPCS
- b) Checking the internal integrity of TEMPCS
- c) Removal of mechanical restraints which prohibit launch
- d) Constraints to boarding of the TEMPCS
- e) Starting of the TEMPCS engine
- f) Boarding of the TEMPCS

### 3. Preparation & Launching Of The TEMPSC

#### Give an explanation and demonstration of, then delegates to practice:

- a) Establishing communications
- b) Checking and confirming that the launch area is clear
- c) Operations of the lowering mechanism
- d) Operation of the release mechanism

#### 4. Moving The TEMPSC To A Safe Area

#### Give an explanation and demonstration of, then delegates to practice:

- a) Selecting a course
- b) Steering the selected course
- c) Determining the safe area
- d) Maintaining TEMPSC in the safe area

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# Further Offshore Lifeboat Coxswain

# **B.4** Training Program (continued)

### 5. Disembarking & Transferring Of Personnel from The TEMPSC

### Give an explanation and demonstration of, then delegates to practice:

- a) Preparing to disembark
- b) Disembarking personnel

# **B.5** Duration of Further Training

The optimum 'contact time' for this training and assessment is seen as 16 hours.

It is suggested that a ratio of 15% : 85% theory/practical is appropriate.

- The total contact time per day shall not exceed 8 hours
- The total training day shall not exceed 10 hours

The total training day includes

- Contact time
- Coffee & meal breaks
- Travel time between training sites where applicable

Assessments, both written and practical, will be conducted after the training program is finished.

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# Further Offshore Lifeboat Coxswain

## B.6 Assessment of Further Training

Assessments will be conducted by TPTI approved training providers.

Assessment of the candidate's performance will be against the stated learning outcomes and will involve both written and practical assessments. The written assessment will be administered by TPTI and the practical assessment will be conducted by TPTI accredited assessors.

Delegates attending this training and assessment program (referred to as candidates during assessment) will be given a series of explanations and demonstrations which will identify what they are expected to know and do. This will be followed by practical exercises which will allow delegates to demonstrate their skills, knowledge and understanding of Offshore Lifeboat Coxswain.

Assessment of the candidate's performance will be against the stated learning outcomes and will involve both written and practical assessments. Candidates who achieve a score of 70% or higher and pass the practical assessment, will be issued a TPTI renewal certificate.

If the candidates fail to achieve a score of 70% or fail the practical assessment, they will be given further time and opportunity to enable them to reach the standard leading to the award of a certificate within the duration of the course. If the candidates still cannot pass the assessment after several attempts within the duration of the course, they will have to retake the Offshore Lifeboat Coxswain course.

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## RESOURCES

In order that a competence program may be delivered successfully it is essential that the correct people are present to support the program and that the appropriate facilities and equipment are in place.

## C.1 Staff

Instructional staff will be required to carry out training and assessors will be required to judge delegate's competence. It is important that the staff involved have the appropriate qualifications and experience.

- a) Trainers will:
  - Have a minimum of 5 years experience as an offshore lifeboat coxswain trainer.
  - Be trained and qualified in instructional/lecture techniques and/or have proven instructing/teaching experience.
  - Be included in an ongoing staff training program which enables them to maintain and update skills and knowledge.
  - Be able to clearly communicate in the English language
  - Have knowledge of applicable Thai and International Standards and Regulations applicable to Lifeboat Coxswain duties.

b) Assessors must be:

- Discipline experts trained and qualified in assessment techniques
- Knowledgeable of the areas being assessed
- c) All staff must have the appropriate competences to conduct/assist the element of training being conducted.
- d) All Training staff will be trained in the causes and consequences stress/anxiety, coping skills and how to manage delegates who are suffering from anxiety.

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## RESOURCES

## C.2 Trainer/Delegate Ratio

- a) It is recommended that the maximum number of delegates attending this program is 8.
- b) The following ratios indicate the maximum number of delegates to be supervised by one Instructor at any one time during each activity.

Theory	1:8
Practical	1:8

For training areas where open sea conditions may be experienced a minimum of 2 boats in company must be operated. Each boat shall have functional radio communication equipment. These may be either two TEMPSC used for training or one TEMPSC used for training plus an appropriate safety craft.

# C.3 Facilities

It is important to make sure that facilities as listed below are available.

**Administration** arrangements appropriate for enrolment and certification of delegates and all aspects of the delivery of training in accordance with this standard.

**Theory** training area(s) so designed to enable each delegate view, to hear and participate fully in the subject matter being taught.

**Practical** training equipment and facilities including a full size TEMPSC complete with industry standard launching and recovery davits so designed to enable each delegate, to practice the following:

- a) mustering, boarding and preparing survival craft prior to abandonment
- b) lowering, releasing and manoeuvring of a survival craft
- c) boat handling exercises (in waters sufficiently extensive to enable the training outcomes to be met)

#### Key exercises to include

- towing,
- being towed,
- man overboard procedures,
- boat handling skills,
- sprinkler system operation
- compass steering

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## RESOURCES

## C.3 Facilities (continued)

All facilities must be maintained and where appropriate, inspected and tested in accordance with current standards/legislation and manufacturers recommendations.

# C.4 Equipment

Different types of equipment may be required and it is important to make sure that is both available and fit for purpose

- a) SOLAS or other international marine approved lifejackets
- b) TEMPSC and ancillary equipment
- c) Industry standard TEMPSC lowering and launching facility (Davit and its components)
- d) Non-live pyrotechnics and location aids

#### Equipment – Safety

- a) First Aid Equipment resuscitation equipment readily available
- b) Safety rescue craft or another TEMPSC

#### Equipment – other

- a) Personal Protective Equipment (PPE)
- b) Training dummies

All equipment must be maintained, and where appropriate, inspected and tested in accordance with current standards/legislation, guidance and manufacturers recommendations.

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# **GENERAL GUIDANCE & REQUIREMENTS**

## C.5 Certification & Recording

A **TPTI** Certificate will be issued to all candidates assessed as meeting the stated outcomes, detailing that they are competent to proceed to the workplace for company specific training where applicable. Delegates' details will also be registered in the **TPTI Central Register.** The issue of a certificate indicates that the delegate has achieved a level of competence to enable him/her to proceed to the workplace for further training and development. Following satisfactory assessment the training provider delivering the training will issue every candidate a certificate.

Each individual attending any TPTI approved program must be registered with the Central Register (CR) operated by TPTI.

Training Establishments are responsible for the following:

a) The issuing of certificates direct to the delegate completing the program and to the sponsoring company (when required). Each certificate must indicate that the delegate has been assessed against the agreed training outcomes and must contain the following:

Establishment name

Full TPTI course title stating that it is TPTI approved

TPTI course identification code

Delegate's name

Course dates

Expiry date (will be the day before the course completion date)

Unique Certificate Number

Establishment Signatory

- b) Each individual attending any TPTI approved program must be registered with the Central Register (CR) operated by TPTI. Registration must be made by training establishments to TPTI on a daily basis.
- c) All Joining Instructions contain information, which indicate certain aspects of the course are of a physical nature. The responsibility for the individual completing the course without any adverse effects to their present state of health lies with the delegate and/or company sponsoring the delegate

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# **GENERAL GUIDANCE & REQUIREMENTS**

## C.5 Certification & Recording (cont'd)

- d) Prior to each course commencing, delegates must sign a declaration indicating they have read and understood a written statement regarding the physical nature of the program and the need for delegates to be in good health. Instructional staff should also read out a statement indicating this at the time.
- e) Where doubt exists regarding the medical fitness of any delegate, the training establishment should ask the delegate or their employer to seek the advice of a medical examiner.
- f) A Medical officer, familiar with the nature and extent of the training is "on call".
- g) Risk assessment of all training areas and provision of all appropriate safety equipment.
- h) Written statements of organisation for all sessions, which clearly define responsibilities and relationships for all staff either directly or indirectly involved.
- i) All training and supporting activities are carried out in accordance with current legislation and safe working practices.

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# **GENERAL GUIDANCE & REQUIREMENTS**

## C.6 Medical and Health Requirements

Emergency response training contains physically demanding and stressful elements. All personnel who participate in such training should be medically fit and capable of participating fully.

Training Establishments are required to ensure that prior to participating in practical exercises the delegate either;

- a) Possess a valid, current medical certificate from the hospital, clinic, or clinical agents registered under Thai government, and:
- b) Undergoes an appropriate screening by the trainer or medical officer inside the training establishment area.

It is recommended that this information is given to delegates along with pre-course joining instructions

#### Guidance and advice on this standard is available by contacting:

Technical Petroleum Training Institute (TPTI)		
Energy Complex Building B	Tel:	66 29365184
555/2, 11 <sup>th</sup> Floor, Vibhavadi-Rangisit,	Fax:	66 29365187
Chatuchak, Bangkok 10900 Thailand	E-mail:	admin@tpti.org