

# **TPTI APPROVED STANDARDS**

## **Basic Offshore Safety Training for Infrequent Travellers (BOSIT)**



REV.	0	DATE	04/11/09
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<b>CONTENTS</b>
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<b>GLOSSARY</b>	4
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<b>INTRODUCTION</b>	5
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**BASIC OFFSHORE SAFETY TRAINING FOR INFREQUENT TRAVELLERS**

<b>A.1</b>	Target Group	6
<b>A.2</b>	Delegate Prior Achievement	6
<b>A.3</b>	Learning Outcomes	7
<b>A.4</b>	Training Program	9
<b>A.5</b>	Duration of Training	17
<b>A.6</b>	Assessment	17
<b>A.7</b>	Further Training/Assessment	17

**RESOURCES**

<b>B.1</b>	Staff	18
<b>B.2</b>	Trainer/Delegate Ratio	19
<b>B.3</b>	Facilities	20
<b>B.4</b>	Equipment	21
<b>B.5</b>	Certification & Recording	22
<b>B.6</b>	Medical & Health Requirements	23

**Appendix 1** Trainers Guidance for Basic Offshore Safety Emergency Training, pg. 24 - 42

**Appendix 2** Guidance on Helicopter Underwater Escape Trainer, pg. 43

REV.	0	DATE	04/11/09
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## GLOSSARY

ABC	Airway Breathing Circulation
ALARP	As low as reasonably practical
ACOP	Approved Code of Practice
BOSIT	Basic Offshore Safety Training
BOP	Blow-out Preventer
CAA	Civil Aviation Authority
COSHH	Control of Substances Hazardous to Health
CO2	Carbon Dioxide
CPR	Cardio Pulmonary Resuscitation
CR	Central Register
EBS	Emergency Breathing System
ESD	Emergency shutdown
DMF	Department of Minerals Fuels
GPA	General Platform Alarm
HASAWA	Health & Safety at Work Act
HELP	Heat Escape Lessening Position
HLO	Helicopter Landing Officer
HSE	Health & Safety Executive
HS&E	Health, safety and environment
H2S	Hydrogen Sulphide
IADC	International Association of Drilling Contractors
MHSWR	Management of Health & Safety at Work Regulations
MOB	Man overboard
MSDS	Material Safety Data Sheet
OIM	Offshore Installation Manager
OPITO	Standards & Approvals function of Cogent Sector Services Limited (sets international standards)
PFEER	Prevention of Fire, Explosion and Emergency Response Regulations
POB	Personnel onboard
PRfS	Personal responsibility for safety
PPE	Personal Protective Equipment
PTW	Permit to Work
SMS	Safety Management System
TEMPSC	Totally Enclosed Motor Propelled Survival Craft
TOFS	Time Out for Safety

REV.	0	DATE	04/11/09
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## **BASIC OFFSHORE SAFETY TRAINING FOR INFREQUENT TRAVELLERS**

### **Introduction**

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

The rationale behind this development was the need for a “fit for purpose” standard to meet the requirements for basic offshore safety training, specifically for infrequent travellers in Thailand. The key objective was to establish a basic competency based training standard, appropriate to use in Thailand.

This Document introduces and describes the core competence and safety training requirements for infrequent travellers relative to the offshore Oil & Gas Industry in Thailand. It is envisaged that by achieving the core competence requirements within the TPTI structure of approved training providers and central recording system, personnel will only require additional training when operating outside of Thai waters. This standard will satisfy the minimum requirement as compared to the BOST certification.

It is recognized that a major objective is to prevent incidents occurring to infrequent travellers and if they do occur to be able to respond effectively to them. The training establishment should recognize that this is only part of a broader training program. To supplement this training, there will also be company and installation specific inductions and emergency response training of which most will be conducted offshore on a regular basis as offshore drills and exercises.

REV.	0	DATE	04/11/09
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## A.1 Target Group

This training program is designed to assist in meeting the initial offshore safety and emergency response training and assessment requirements for infrequent travellers to the offshore oil and gas installations in Thailand. “Infrequent travellers” refers to persons who go offshore no more than four times per year and should not be exceeding 72 hours each trip.

### **This BOSIT Standard contains:**

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

### **The standard consists of the following modules:**

Safety Induction  
Helicopter Safety and Escape  
Sea Survival  
Fire Response and Self Rescue

## A.2 Delegate Prior Achievement

No prior achievement required

REV.	0	DATE	04/11/09
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## Basic Offshore Safety Training for Infrequent Travellers

**The responsibility for delivering and assessing this program rests with TPTI Approved Training Providers.**

### A.3 Learning Outcomes

During the BOSIT program, delegates will gain a basic level of understanding and an awareness of safety and emergency response on offshore installations.

The delegates will be required to demonstrate their skills and the level of knowledge and understanding of the following key areas.

#### SAFETY INDUCTION

**Delegates will be able to recognize:  
(general knowledge)**

1. Offshore hazards, their control and consequences.
2. Environmental awareness.
3. Offshore safety awareness
4. Procedures for prescribed medicines offshore.
5. Alcohol and substance abuse policy.
6. PPE requirements.
7. Procedure for reporting incidents, accidents and near misses.
8. The role of the Medic.

REV.	0	DATE	04/11/09
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## Basic Offshore Safety Training for Infrequent Travellers

### A.3 Learning Outcomes (continued)

#### HELICOPTER SAFETY & ESCAPE

##### Delegates will demonstrate practically:

9. Donning an aviation lifejacket.
10. Actions in preparation for a helicopter ditching.
11. Actions following:
  - a. A controlled ditching on water (including the operation of a push out window).
  - b. A partial submersion of an aircraft (without operation of a push out window).
  - c. A partial submersion of an aircraft (including operation of a push out window).
12. Actions following:
  - a. An aircraft capsize in water (including the operation of a push out window).

#### SEA SURVIVAL

##### Delegates will demonstrate practically:

13. Donning of a permanent buoyancy lifejacket prior to use in an emergency.
14. Actions when mustering and preparing to board a survival craft (TEMPSC) as a passenger.

#### FIRE RESPONSE AND SELF RESCUE

##### Delegates will be able to identify:

15. The different appropriate hand held portable fire extinguishers.
16. Self-rescue techniques from fire or smoke situation



REV.	0	DATE	04/11/09
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## Basic Offshore Safety Training for Infrequent Travellers

### 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.**

REV.	0	DATE	04/11/09
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## Basic Offshore Safety Training for Infrequent Travellers

### A.4 Training Program (continued)

#### SAFETY INDUCTION

##### 1. Industry Overview and Installation Overview

**Give an overview of:**

- a. Offshore oil and gas activities.
- b. Types of installations
  - drilling
  - production - oil and gas/gas
  - construction
  - accommodation
  - specialist vessels.
- c. The offshore environment.

##### 2. Offshore Hazards Introduction

**Give an explanation of:**

Offshore hazards definitions, statistics and consequences

##### 3. Living and Working Offshore

**Give an explanation of:**

Fitness requirements, medical standards,  
The procedure for taking prescribed medicines offshore  
Alcohol and substance abuse policies.

Offshore routines:

reporting in  
installation induction  
cabin/laundry/bond  
recreation /smoking  
getting on with others

Working routines:

procedures  
work authorisation  
maintaining a safe workplace  
personal protective equipment  
waste disposal  
the right to stop unsafe work

REV.	0	DATE	04/11/09
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## Basic Offshore Safety Training for Infrequent Travellers

### A.4 Training Program (continued)

#### SAFETY INDUCTION (continued)

#### 3. Living and Working Offshore (continued)

##### Give an explanation of:

Individuals' involvement in safety e.g.

- observation systems
- drills & exercises
- additional duties

Injuries and illness:

- reporting incidents, accidents near misses and illnesses
- the role of the medic
- investigation
- preventing a recurrence
- support available to relatives in the event of illness/injury/major incident/evacuation

**A Trainer's Guide for Basic Offshore Safety Training for Infrequent Travellers is shown in Appendix 1**

REV.	0	DATE	04/11/09
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## Basic Offshore Safety Training for Infrequent Travellers

### A.4 Training Program (continued)

#### HELICOPTER SAFETY & ESCAPE

##### 1. Helicopter Travel

Give an overview of the procedures for:

- |    |                     |   |
|----|---------------------|---|
| a. | Pre-boarding        | <b>This is in advance of the information detailed during pre-flight briefings</b> |
| b. | Safe boarding       |   |
| c. | In-flight           |   |
| d. | Safe disembarkation |   |

##### 2. Helicopter Emergencies

Give an explanation and demonstration of:

- In-flight emergencies
- Ditching and emergency landing
- Evacuation

with specific reference to:

- Donning of an aviation lifejacket.
- Aircraft flotation characteristics.
- Emergency equipment onboard.
- Escape routes.
- Exit points and their operation.
- Survival techniques following evacuation.

REV.	0	DATE	04/11/09
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## Basic Offshore Safety Training for Infrequent Travellers

### A.4 Training Program (continued)

#### HELICOPTER SAFETY & ESCAPE

#### 3. Practical Helicopter Escape

##### Delegates to practice and demonstrate:-

- a. Donning an aviation lifejacket, operating a push out window and carrying out a dry evacuation via a nominated emergency exit to an aviation liferaft from a helicopter ditched on water
- b. Assisting others where possible and carrying out vital and secondary actions
- c. Escape, through a window opening which is under water, from a partially submerged helicopter (without operating a push out window)
- d. Escape, through a window opening which is under water from a partially submerged helicopter (including operating a push out window)
- e. Escape, through a window opening which is under water, from a capsized helicopter (including operating a push out window), inflating a lifejacket and carrying out in-water procedures (including individual and group survival techniques).
- f. Boarding of a helirraft from the water.
- g. Being rescued by one of the recognized methods available offshore.

##### **Note:**

- Although push out windows are to be fitted for the capsize exercise, competence in the operation of these should be assessed during the partial submersion exercise.

**A Trainer's Guide for Basic Offshore Safety Training for Infrequent Travellers is shown in Appendix 1**

REV.	0	DATE	04/11/09
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## Basic Offshore Safety Training for Infrequent Travellers

### A.4 Training Program (continued)

#### SEA SURVIVAL

##### 1. Evacuation (Theory)

Give an overview of the actions to be taken prior to, during and after selective evacuation or escape from an offshore installation covering:

- a. Layout of installations (escape routes, temporary refuge, muster locations, abandonment locations, access routes including helideck, bridge landing points, tertiary escape points).
- b. Installation alarms and communications (locations, use and appropriate response).
- c. The possibility of devolved command within the installation's organizational structure and appropriate procedures and actions should this occur.
- d. The need for and use of personal protective equipment (gloves, torch, smoke hoods, etc).
- e. The SAR organization and means of rescue from sea and survival craft.
- f. The importance of correct personal clothing.

**a to d above are in advance of the information detailed during installation safety briefings.**

REV.	0	DATE	04/11/09
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<b>Basic Offshore Safety Training for Infrequent Travellers</b>
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## **A.4 Training Program (continued)**

### **SEA SURVIVAL (continued)**

<b>2. Evacuation and Escape (Practical)</b>
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**Give an explanation and demonstration of:**

- a. The various types of survival craft (TEMPSC), their function, the procedure for mustering, boarding and strapping in, including the safety precautions during lowering and release, emergency equipment and supplies.
- b. Water entry and the precautions when entering from a height.

**Delegates to practice and demonstrate:**

- c. The donning of a permanent buoyancy lifejacket.
- d. As a TEMPSC passenger mustering and preparing to board

REV.	0	DATE	04/11/09
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## Basic Offshore Safety Training for Infrequent Travellers

### A.4 Training Program (continued)

#### FIRE RESPONSE AND SELF RESCUE

##### 1. Fire Response Offshore

**Give an overview of:**

- a. The common causes and nature of fires onboard offshore oil and gas installations.
- b. Raising the fire and emergency alarm.
- c. The purpose of fixed fire and gas detection and Fire Response systems; the actions to take in areas where these systems are deployed.
- d. PPE and portable Fire Response equipment.
- e. Hydrogen Sulphide; the hazards, methods of detection and the actions to take in the event of discovery.

##### 2. Self Rescue

**Give an explanation of:**

- a. Self rescue techniques with and without respiratory protection from areas which are being subjected to smoke and heat.



REV.	0	DATE	04/11/09
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## A.5 Duration of Training

**The optimum ‘contact time’ for this training and assessment is seen as 7 hours.**

It is suggested that the ratio of 40% theory to 60% practical is appropriate for the remaining parts of the module.

Where this training is part of a program of longer duration:

- 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
- refreshment and meal breaks
- travel between training sites where applicable.

## A.6 Assessment

Delegates will be judged against the learning outcomes based on the results of the practical training alone.

Training Providers should have a policy and procedure in place for dealing with persons not meeting the stated learning outcomes.

## A.7 Further Training/Assessment

The initial BOSIT certificate is valid for a period of three years. Thereafter, further training should be undertaken only if there is need for infrequent offshore travel. The further training is conducted at TPTI Approved Training Centers.

REV.	0	DATE	04/11/09
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## RESOURCES

### B.1 Staff

In order for a competence program to be delivered successfully it is necessary to have appropriate persons in presenting and supporting roles.

TPTI Approved Training Providers will deliver and carry out assessment of the program.

1. Trainer will be :
  - full time staff or contractor, working with the training providers. For the training assistance, freelance trainers can be allowed.
  - trained in instructional/lecture techniques and/or have proven instructing /teaching experience.
  - graduated from the university, vocational school, school, institute, or any organization that is accredited by the government.
  - included in an ongoing training program, which includes visits to onshore oil and gas installations, to enable them to maintain and update skills.
  - Able to clearly communicate and teach in English language.
2. Assessors will be:
  - discipline experts and will hold a recognized formal assessor award
  - knowledgeable in the areas being assessed.
3. All staff will have the appropriate competencies to conduct/assist with the element of training being undertaken.
4. All Training staff will be trained in the causes and consequences of stress/anxiety, coping skills and how to manage delegates who are suffering from anxiety.

REV.	0	DATE	04/11/09
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## RESOURCES

### B.2 Trainer/Delegate Ratio

1. The ratio shown for theory sessions indicates the maximum number of delegates attending the course.
2. Other ratios indicate the maximum number of delegates to be supervised by an instructor at any one time during each activity.

#### Safety Induction

Theory	1: 16
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#### Helicopter Escape

Theory	1: 16
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Theory & Demonstration	1: 16
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Helicopter Underwater Escape Trainer	1: 4	(Also one instructor to be nominated pool supervisor and a minimum of 2 staff as in-water safety persons. Max. 4 delegates per trainer).
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#### Sea Survival

Theory	1: 16
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TEMPSC (per craft)

- |                          |       |
|--------------------------|-------|
| • Theory & Demonstration | 1 : 8 |
|--------------------------|-------|

#### Fire Response & Self Rescue

Theory	1: 16
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Extinguishers

- |                          |        |
|--------------------------|--------|
| • Theory & Demonstration | 1 : 16 |
|--------------------------|--------|

REV.	0	DATE	04/11/09
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## RESOURCES

### B.3 Facilities

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

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

**Practical** training areas to be designed to enable each delegate to individually or as part of a team view, hear and practice the following;

- (a) Dry evacuation into a heliraft on water from a helicopter trainer.
- (b) Escape from a partially submerged helicopter trainer through an exit which is under water.
- (c) Escape from a capsized helicopter trainer and use of a lifejacket.
- (d) Operation of emergency exits and push out windows of a type currently found on helicopters operating offshore.
- (e) Donning of an aviation lifejacket.
- (f) The donning of a permanent buoyancy life jacket.
- (g) The boarding of a heliraft from the water.
- (h) As a passenger TEMPSC mustering and preparing to board

**Note:** Facilities provided for delegates to enter the water, either for the HUET or Sea Survival sessions must consist of a purpose built pool with appropriate filtration and water quality checks. Open sea or river facilities are not acceptable.

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

REV.	0	DATE	04/11/09
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## RESOURCES

### B.4 Equipment

1. Equipment of a type found on offshore oil and gas installations and helicopters involved in offshore operations are required to meet the needs of the training program.
  - (a) Aviation and marine lifejackets
  - (b) Aviation liferaft and ancillary equipment
  - (c) Marine liferaft and ancillary equipment
  - (d) TEMPSC and ancillary equipment
  - (e) Tertiary Escape Systems (video/slide presentation)
  - (f) Portable Extinguishers - water, foam CO<sub>2</sub> and dry chemical
  - (g) H<sub>2</sub>S detectors
  - (h) Helicopter Underwater Escape Trainer (HUET) Note: See Appendix 2
  
2. Safety Equipment appropriate to training being delivered.
  - (a) Personal Protective Equipment (PPE)
  - (b) First Aid Equipment
  - (c) Fire fighting equipment

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

REV.	0	DATE	04/11/09
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## GENERAL GUIDANCE & REQUIREMENTS

### B.5 Certification and Recording

#### Registration of BOSIT Modules

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 the training establishment 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 the company sponsoring the delegate.
- (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 establishment should seek the advice of a medical officer.
- (f) A medical officer, familiar with the nature and extent of the training is "on call".

REV.	0	DATE	04/11/09
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## GENERAL GUIDANCE & REQUIREMENTS (cont)

- (g) Risk assessment of all training areas and provision of all appropriate safety equipment.
- (h) Written statements of organization 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

### B.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  
555/2, 11<sup>th</sup> Floor, Vibhavadi-Rangisit,  
Chatuchak, Bangkok 10900 Thailand

Tel: 66 29365184  
Fax: 66 29365187  
E-mail: admin@tpti.org

## Appendix 1.

### GUIDANCE TO THE TRAINER

#### Basic Offshore Safety Training

#### Trainer's Guide

It is the intention that the following trainer's guide be used as a reference tool by training staff in the development and provision of theory and practical lessons. Resources and key topics listed should not be seen as lists that are either definitive or exhaustive when being used for lesson preparation.

#### The optimum 'contact time' for this training is seen as 7 hours

The times indicated for individual lessons are flexible within this overall optimum time. However instructional staff should see these times as indicators to the amount of detail required for the delivery of the topic.

The training 'contact time' should not exceed 8 hours per day and except in unusual circumstances the total training day should not exceed 10 hours.

<u>Content</u>	<u>Optimum Contact Time (hrs)</u>
1. Registration and Safety	Not included
2. Safety Induction	1 hr 5 mins
3. Helicopter Safety & Escape	3 hrs 40 mins
4. Sea Survival	1hr 20 mins
5. Fire Response & Self-Rescue	55 mins
<b>Total Optimum Contact Time</b>	<b>7 hours (420 mins)</b>



REV.	0	DATE	04/11/09
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**Instructor's Guide – BOSIT (Registration & Safety)**

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
	<b>Registration</b>	<ul style="list-style-type: none"> <li>• Medical Fitness</li> <li>• CR (refer to TPTI 'Personal Record')</li> <li>• Training Provider Registration</li> <li>• Certification</li> </ul>	E			Visual Aids Medical Statement CR Registration Forms Training Provider documentation	Not included in course training time total
	<b>Safety</b>	<ul style="list-style-type: none"> <li>• Training Provider Health &amp; Safety Policy</li> <li>• Fire Alarm/Emergency Actions</li> <li>• First Aid</li> <li>• Accident reporting</li> <li>• Site Plan of training facility</li> </ul>	E				

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)

REV.	0	DATE	04/11/09
------	---	------	----------

**Instructor's Guide – BOSIT (Safety Induction)**

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
	<b>Session Introduction</b>	<ul style="list-style-type: none"> <li>• Aim (what the session is designed to do)</li> <li>• Training Outcomes (what is expected of delegates)</li> <li>• Timetable/Program (how delegates can achieve what is expected of them)</li> <li>• Staff (who will be involved with the delegates)</li> </ul>	E			Visual Aids	10 mins

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)

REV.	0	DATE	04/11/09
------	---	------	----------

**Instructor's Guide – BOSIT (Safety Induction)**

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
A.4 Safety Induction 1 Pg. 10	<b>Industry &amp; Installation Overview</b>	<ul style="list-style-type: none"> <li>• Overview of offshore oil and gas activities.</li> <li>• Types of installations and specialist vessels and their main functions and features.                             <ul style="list-style-type: none"> <li>- drilling - jack-up, semi-sub, drill ship</li> <li>- production oil &amp; gas/ gas</li> <li>- fixed, floating</li> <li>- construction - heavy lift, pipe laying</li> <li>- accommodation - flotel</li> <li>- specialist vessels - standby, support, diving support.</li> </ul> </li> <li>• The offshore environment                             <ul style="list-style-type: none"> <li>- remote nature</li> <li>- harsh conditions</li> <li>- proximity of working/living environments</li> </ul> </li> </ul>	E		Safety Induction 2	Visual Aids	10 mins

E - Explanation (by training staff)      D - Demonstration (by training staff)      P - Practice (by delegate)



REV.	0	DATE	04/11/09
------	---	------	----------

**Instructor's Guide – BOSIT (Safety Induction)**

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
A.4 Safety Induction 3 Pg. 10	<b>Living and Working Offshore</b>	<ul style="list-style-type: none"> <li>• Personal Standards                             <ul style="list-style-type: none"> <li>- fitness</li> <li>- medical standards</li> <li>- medicines</li> <li>- substance abuse policies</li> </ul> </li>   <li>• Living offshore                             <ul style="list-style-type: none"> <li>- reporting in</li> <li>- items permitted/not permitted offshore</li> <li>- installation induction</li> <li>- cabin/laundry/bond</li> <li>- recreation/smoking</li> <li>- getting on with others</li> </ul> </li>   <li>• Responsibilities of employer / employee                             <ul style="list-style-type: none"> <li>- line of reporting</li> </ul> </li> </ul>	E		Safety Induction 4 Safety Induction 5	Installation organization chart	30 mins

E - Explanation (by training staff)

D- Demonstration (by training staff)

P - Practice (by delegate)

REV.	0	DATE	04/11/09
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**Instructor's Guide – BOSIT (Safety Induction)**

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
	<b>Living and Working Offshore Cont.</b>	<ul style="list-style-type: none"> <li>• Working routine                             <ul style="list-style-type: none"> <li>- procedures</li> <li>- work authorisation</li> <li>- personal protective equipment (PPE)</li> <li>- maintaining a safe place of work</li> <li>- waste disposal</li> <li>- right to stop unsafe work</li> </ul> </li>   <li>• Your involvement in safety                             <ul style="list-style-type: none"> <li>- safety observation systems</li> <li>- emergency drills &amp; exercises</li> <li>- additional emergency response duties</li> <li>- getting involved what to do when not satisfied e.g. immediate supervisor/OIM</li> </ul> </li> </ul>	E		Safety Induction 6	Examples of common PPE  STOP/START/TOFS etc. Examples of permits   Installation emergency organization chart	

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)

REV.	0	DATE	04/11/09
------	---	------	----------

**Instructor's Guide – BOSIT\_(Safety Induction)**

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
	<p><b>Living and Working Offshore (cont.)</b></p> <p><b>Summary</b></p>	<ul style="list-style-type: none"> <li>• Reporting injuries &amp; illness</li> <li>- the role of the medic</li> <li>- first aid arrangements offshore</li> <li>- reporting incidents, accidents &amp; near misses</li> <li>- investigation</li> <li>- preventing a recurrence</li> <li>- support available to relatives</li> </ul>	E		Safety Induction 7&8		

E - Explanation (by training staff)      D - Demonstration (by training staff)      P - Practice (by delegate)

**Total 1 hour 5 mins**

REV.	0	DATE	04/11/09
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**Instructor's Guide – BOSIT (Helicopter Safety & Escape)**

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
	<b>Session Introduction</b>	<ul style="list-style-type: none"> <li>• Aim (what the session is designed to do)</li> <li>• Learning Outcomes (what is expected of delegates)</li> <li>• Timetable/Program (how delegates can achieve what is expected of them)</li> <li>• Staff (who will be involved with the delegates)</li> </ul>	E			Visual Aids	5 mins

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)



REV.	0	DATE	04/11/09
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**Instructor's Guide – BOSIT (Helicopter Safety & Escape)**

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
A.4 Helicopter Safety & Escape 1 Pg. 12	<b>Helicopter Travel</b>  Pre-boarding  safe boarding  in-flight  safe disembarkation	<ul style="list-style-type: none"> <li>• Introduction with a brief overview of helicopter operations</li> <li>• Arrival time</li> <li>• Correct dress</li> <li>• Documentation</li> <li>• Prohibited Articles</li> <li>• Check-in</li> <li>• Lifejacket issue</li> <li>• Checks and donning</li> <li>• Safe boarding</li> <li>• Pre-flight video</li>   <li>• Summary - mention pre-flight briefings</li> </ul>	E			Visual aids  Briefing Video - not essential	10 mins

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)

REV.	0	DATE	04/11/09
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## Instructor's Guide – BOSIT (Helicopter Safety & Escape)

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
A.4 Helicopter Safety & Escape 2 Pg. 12	<b>Helicopter Emergencies</b>  In-flight ditching and emergency landing  emergency equipment  evacuation	<ul style="list-style-type: none"> <li>Abnormal conditions (fuel leaks)</li> <li>Fire – inform crew</li> <li>Follow crew instructions</li> <li>Seat belt/ lifejacket</li> <li>Follow crew instruction</li> <li>Brace</li> <li>Escape routes</li> <li>Emergency equipment</li> </ul> <ul style="list-style-type: none"> <li>Aviation raft: stowage, operation, entry, vital and secondary actions.</li> </ul> <ul style="list-style-type: none"> <li>Locate</li> <li>Release (on-command)</li> <li>Follow crew instruction</li> <li>Exits &amp; push out windows - on water, underwater, capsize</li> <li>Independent action</li> <li>Survival techniques</li> </ul>	 E E E E E E E  E  E E E E  E E			 Visual Aids  Lifejacket Seat belt Aviation liferaft Exits	15 mins

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)

REV.	0	DATE	04/11/09
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**Instructor's Guide – BOSIT (Helicopter Safety & Escape)**

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
A.4 Helicopter Safety & Escape 3 Pg. 13	<b>Practical Helicopter Escape</b>	<ul style="list-style-type: none"> <li>Delegates to don lifejacket and to be familiarized with emergency equipment prior to first exercise</li> </ul>	E,D	P	Helicopter Safety & Escape 9	Staff Safety Visual Aids  Lifejackets Heliraft Helicopter Underwater Escape Trainer (c/w exit mechanisms) PPE	190 mins

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)

REV.	0	DATE	04/11/09
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**Instructor's Guide – BOSIT (Helicopter Safety & Escape)**

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
	<p><b>Surface Evacuation</b></p> <p><b>Partial Submersions</b></p> <p><b>Capsize</b></p> <p><b>Survival &amp; Rescue</b></p> <p><b>Summary</b></p>	<ul style="list-style-type: none"> <li>• Dry evacuation from a helicopter ditched on water using a nominated exit to a heliraft; operating an emergency exit/push out window.</li> <li>• Escape through a window which is under water from a partially submerged helicopter                             <ul style="list-style-type: none"> <li>- without operating a push out window</li> <li>- with operating a push out window</li> </ul> </li> <li>• Escape through an escape exit which is under water from a capsized helicopter                             <ul style="list-style-type: none"> <li>- with operating a push out window</li> </ul> </li> <li>• Inflate lifejacket &amp; deploy spray visor (if fitted)</li> <li>• Practice individual and group in-water survival procedures                             <ul style="list-style-type: none"> <li>- swimming, HELP, towing, chain, huddle/circle etc.</li> </ul> </li> <li>• Boarding an aviation liferaft from the water</li> <li>• Rescue by one of the recognized means available offshore.</li> </ul>		<p>E,D &amp; P</p> <p>E,D &amp; P</p> <p>E,D &amp; P</p> <p>E,D &amp; P</p> <p>E,D &amp; P</p> <p>E,D,&amp; P</p> <p>E</p>	<p>Helicopter Safety &amp; Escape 10 &amp; 11a</p> <p>Helicopter Safety &amp; Escape 11b, 11c</p> <p>Helicopter Safety &amp; Escape 12</p>	<p>Staff Safety</p> <p>Lifejackets</p> <p>Heliraft</p> <p>Helicopter</p> <p>Underwater</p> <p>Escape Trainer</p> <p>PPE</p>	

**Total 3 hours 40 mins**

REV.	0	DATE	04/11/09
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## **Instructor's Guide – BOSIT (Sea Survival)**

<b>Ref TPTI Std</b>	<b>Subject</b>	<b>Key Topics</b>	<b>Th</b>	<b>P</b>	<b>Learning Outcome</b>	<b>Resource</b>	<b>Time</b>
	<b>Session Introduction</b>	<ul style="list-style-type: none"> <li>• Aim (what the session is designed to do)</li> <li>• Learning Outcomes (what is expected of delegates)</li> <li>• Timetable/Program (how delegates can achieve what is expected of them)</li> <li>• Staff (who will be involved with the delegates)</li> </ul>	E			Visual Aids	5 mins

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)

REV.	0	DATE	04/11/09
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**Instructor's Guide – BOSIT (Sea Survival)**

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
A.4 Sea Survival 1 Pg. 14	<b>Evacuation</b>	<ul style="list-style-type: none"> <li>• Layout - escape routes, muster points, safe refuge, abandonment points, access routes, helideck, boat landing points, tertiary escape points</li> <li>• Alarms and communications</li> <li>• Station bill</li> <li>• Types of emergencies</li> <li>• Command and devolved command</li> <li>• PPE</li> <li>• SAR</li> <li>• Personal protective clothing</li> <li>• The various types of survival craft (TEPSC), their function, the procedure for mustering and preparing to board, including the safety precautions.</li> <li>• Knotted Rope</li> <li>• Scramble Net</li> <li>• Liferaft</li> <li>• Ladders</li> <li>• Personal descending escape devices</li> </ul>	E			Visual aids	30 mins

E-Explanation (by training staff)

D-Demonstration (by training staff)

P-Practice (by delegate)

REV.	0	DATE	04/11/09
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**Instructor's Guide – BOSIT (Sea Survival)**

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
A.4 Sea Survival 2 Pg. 15	<b>Response to Emergency</b>  TEMPSC  <b>Water Entry</b>	<ul style="list-style-type: none"> <li>Muster Station</li> <li>Donning of permanent buoyancy lifejackets</li> </ul> <p>Functions and capabilities (e.g. air supply, fire protection, buoyancy, etc)</p> <ul style="list-style-type: none"> <li>As passenger                             <ul style="list-style-type: none"> <li>- Muster</li> <li>- Prepare to Board</li> </ul> </li> <li>Water entry level (stepping off poolside max 3m fall)</li> </ul>		E,D,P E,D,P  E,D  E,D,P  E,D	Sea Survival 13  Sea Survival 14	Pool Lifejackets  Marine raft & ancillary equipment	45 mins

**Total 1 hour 20 mins**

REV.	0	DATE	04/11/09
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## Instructor's Guide – BOSIT Fire Response & Self Rescue

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
A.4 Fire Response & Self Rescue 1 Pg. 16	<b>Fire onboard an offshore installation</b>	<ul style="list-style-type: none"> <li>Nature of Fire</li> <li>Common causes of fire onboard</li> <li>Fixed Systems Onboard</li> </ul>	E			Visual Aids	5 mins
	Response	<ul style="list-style-type: none"> <li>Action on discovering a fire ( as Installation Emergency Procedures) with emphasis on                             <ul style="list-style-type: none"> <li>- raising the alarm (methods)</li> <li>- location of portable hand held Fire Response equipment</li> <li>- evacuate to designated area.</li> </ul> </li> </ul>	E&D			<p><b>Note:</b> More detailed information on fire equipment and procedures specific to an installation will be included in installation safety briefings.</p>	10 mins
	Hydrogen Sulphide	<ul style="list-style-type: none"> <li>The hazards of H2S, methods of detection and the actions to take if it is discovered</li> </ul>	E			Visual aids H2S detectors	

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)



REV.	0	DATE	04/11/09
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## Instructor's Guide – BOSIT Fire Response & Self Rescue

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
	<b>PPE</b>	<ul style="list-style-type: none"> <li>Type of PPE</li> <li>Correct method of wearing/fit</li> </ul>	E E				10 mins
	<b>Portable hand held Fire Response equipment</b> Fire Extinguishers	<ul style="list-style-type: none"> <li>Recognition of the different types of fire extinguisher (water, dry chemical, foam, CO<sub>2</sub> - not halon)</li> <li>Understand the operation and use of each type of extinguisher on appropriate fire (class A and B)                             <ul style="list-style-type: none"> <li>- position of user</li> <li>- techniques</li> </ul> </li> </ul>	E E,D		Fire Response & Self Rescue 15	Extinguishers (Water, Dry Powder, Foam, CO <sub>2</sub> - not halon) Hose Reel Fire Blanket Fuel (Class A & B fires) Props (appropriate to practical training requirements) First Aid	15 mins

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)

REV.	0	DATE	04/11/09
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**Instructor's Guide - BOSIT Fire Response & Self Rescue**

Ref TPTI Std	Subject	Key Topics	Th	P	Learning Outcome	Resource	Time
A.4 Fire Response & Self Rescue 2 Pg. 16	<b>Self Rescue</b> Self rescue techniques	<ul style="list-style-type: none"> <li>Self rescue, To include correct methods and procedures for escape when exposed to smoke and heat e.g. movement in corridors, on stairs with consideration of heat &amp; visibility levels</li> <li>Explanation &amp; demonstration of a selection of smoke hood types to delegates.</li> </ul>	E&D			Visual Aids  Selection of smoke hoods for demonstration	15 mins

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)

**Total 55 mins**

REV.	0	DATE	04/11/09
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## Appendix 2.

### **GUIDANCE ON HELICOPTER UNDERWATER ESCAPE TRAINER**

This standard does not specify a particular manufacturer of Helicopter Underwater Escape Trainer (HUET) nor does it give detailed design specifications as it is felt that this may restrict development and innovation. However, listed below are the criteria that a HUET has to meet in order to deliver safe and effective training in line with this standard.

- a) It can be lowered on to the surface of the water, and then subsequently lowered below the water, both in an upright position and capsized.
- b) In an emergency it can be retrieved to the surface and if necessary to the side of the pool with the delegates still inside.
- c) It has realistic seatbelt fastenings and a system for releasing delegates in an emergency should the buckle fail to open.
- d) The body of the HUET rotates with the seats, so that delegates can locate their exit before capsize, i.e. not just the seats rotating within a fixed body.
- e) There is a means of stopping the rotation in an emergency (usually a brake).
- f) The dimensions of push out windows should be not less than 480mm x 430mm and not greater than 686mm x 609mm and should be fitted with a simulated seal and pull tag.  
Note: These windows should be capable of being removed externally by the in water safety staff, in an emergency.  
These windows should not be dislodged during normal HUET operations e.g. force of water during capsize
- g) If the HUET is also used for the exercise involving opening emergency exits (doors) then the operating mechanism should be similar to that on the real helicopters (note: the push out windows detailed in f) above should be used for escape during the submersion and inversion exercises).
- h) There is sufficient room within the HUET for an instructor/assessor as well as the delegates (note a maximum of 4 delegates for the submersion and inversion exercises although there can be more seats).

Note: This information will be utilised when auditing HUET provision.