

# **TPTI APPROVED STANDARDS**

**Basic Offshore Helicopter Landing Officer**

**(BOHLO)**



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## GLOSSARY

BA	Breathing Apparatus
CAA	Civil Aviation Authority
CR	Central Register
DMF	Department of Minerals Fuels
HLO	Helicopter Landing Officer
IATA	The International Air Transport Association
ICAO	International Civil Aviation Organization
PPE	Personal Protective Equipment

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<b>BASIC OFFSHORE HELICOPTER LANDING OFFICER</b>
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## Introduction

This standard was developed jointly by TPTI and a workgroup representing the interests of the offshore oil & gas industry in Thailand. It explains how competence shall be assessed and certificated for **Basic Offshore Helicopter Landing Officers**.

The industry recognises that a major objective is to prevent incidents occurring, and if they do occur to be able to respond effectively to them. It is important therefore to set common standards and to ensure that they are maintained. Before personnel can be assessed against standards they will require the knowledge and skills to enable them to carry out the tasks involved. They may also require basic training and practice before being assessed.

The purpose of this document is to set out the initial training, further practice and assessment requirements for an Offshore Helicopter Landing Officer which will be conducted at an onshore training establishment. The training establishment should recognise that this is only part of a broader training program. There will also be company and installation specific emergency response training most of which will be conducted offshore on a regular basis as offshore drills and exercises.

The document was developed by an Industry Work Group to address the routine and emergency response operations undertaken by an Offshore Helicopter Landing Officer. For the purposes of emergency response, only those elements should be taken into consideration.

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## A.1 Target Group

This program is designed to meet the initial training and assessment requirements for routine and emergency response operations for Offshore Helicopter Landing Officers.

## A.2 Delegate Prior Achievement

Attendance on this program is open to delegates who:

- have previously served as Helideck Assistants/Attendants onboard an offshore installation, **or**
- have some previous experience of handling aircraft (helicopters) either onshore or offshore,

**and** must be in possession of:

- a valid TPTI Offshore Emergency Helideck Team Member certificate or a suitable alternative certificate recognized by TPTI.
- A CAA (Civil Aviation Authority) or other recognised authority VHF certificate (restricted or otherwise), prior to the issue of an HLO certificate.

**Note:** According to the Air Navigations (Dangerous Goods) Regulations, personnel may not legally undertake duties associated with the carriage of people, baggage and cargo unless dangerous goods training has been successfully completed. Relevant dangerous goods training for helideck personnel must, therefore, be taken in addition to the content of this standard.

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<b>The responsibility for delivering and assessing this program rests with TPTI Approved Training Providers.</b>
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### A.3 Learning Outcomes

Delegates, following a series of explanations, demonstrations and opportunities to practice, will as a candidate be assessed against the standards relating to the following training outcomes.

<b>Delegates will explain/identify: (testing knowledge)</b>
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- |       |   |
|-------|---|
| A.3.1 | Relevant guideline, regulations and legislation, industry guidelines and their application to helideck activities |
| A.3.2 | Offshore emergency response arrangements  |
| A.3.3 | Role of the HLO as team leader on the helideck  |
| A.3.4 | Helicopter operational hazards  |
| A.3.5 | Purpose and operation of relevant helideck equipment  |
| A.3.6 | How emergency exercises should be conducted   |

<b>Delegates will demonstrate practically: (testing skills and knowledge)</b>
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|--------|--|
| A.3.7  | Supervising the preparation of the helicopter landing  |
| A.3.8  | Supervising cargo handling including coordinating the preparation of freight   |
| A.3.9  | Supervising the helicopter refueling process to include preparations for refueling and shutting down the refueling process |
| A.3.10 | Supervising the loading and unloading of passengers, baggage and freight   |
| A.3.11 | Supervising the preparation for helicopter departure   |
| A.3.12 | Responding to alarms   |
| A.3.13 | Preparing to enter the incident area   |
| A.3.14 | Entering the incident area and working safely  |
| A.3.15 | Controlling the rescue of personnel  |
| A.3.16 | Controlling firefighting operations  |
| A.3.17 | Controlling non-firefighting operations  |

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

<b>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.</b>
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<b>A.4.1 Offshore HLO Basic Study</b>
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**Give an overview of:**

- A.4.1.1 Relevant Guidelines for Management of Offshore Helideck Operations
- A.4.1.2 Offshore Helicopter Landing Area guidance documentation

**Give a detailed explanation of:**

- A.4.1.3 Helicopter and helideck hazards:
  - a) Rotors running
  - b) Fire
  - c) Electrical
  - d) Dangerous goods
- A.4.1.4 Offshore emergency response arrangements

<b>A.4.2 Preparation for Helicopter Landing</b>
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**Give an explanation and demonstration of, then delegates to practice:**

- A.4.2.1 The monitoring of environmental conditions
- A.4.2.2 Communications to relevant personnel
- A.4.2.3 Briefing the helideck crew
- A.4.2.4 Checking equipment status, to include uses and limitations
- A.4.2.5 Helideck manning
- A.4.2.6 Helideck physical characteristics
- A.4.2.7 Aircraft type
- A.4.2.8 Helideck manning/positioning

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<b>A.4.3 Passenger and Freight Handling</b>
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**Give an explanation and demonstration of, then delegates to practice:**

- A.4.3.1 Checking freight manifests
- A.4.3.2 Preparing for, and correct handling of freight and baggage
- A.4.3.3 Correct manual handling techniques during freight loading and unloading
- A.4.3.4 Preparing for, and correct handling of dangerous goods according to IATA and ICAO regulation
- A.4.3.5 Hazard recognition of dangerous goods
- A.4.3.6 Aircraft freight loading requirements
- A.4.3.7 Safe approach during loading/unloading activities
- A.4.3.8 Checking passenger manifests
- A.4.3.9 Supervising passenger safe egress and access on helideck
- A.4.3.10 Supervising passenger entry into helicopter
- A.4.3.11 Supervising passenger exit from helicopter

<b>A.4.4 Preparations for Helicopter Departure</b>
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**Give an explanation and demonstration of, then delegates to practice:**

- A.4.4.1 Briefing the helideck crew
- A.4.4.2 Effective communications with relevant personnel
- A.4.4.3 Security and stowage of equipment - helicopter and helideck
- A.4.4.4 Helideck manning/crew positioning

<b>A.4.5 Helicopter Refuelling</b>
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**Give an explanation and demonstration of, then delegates to practice:**

- A.4.5.1 Preparations for Helicopter Refuelling
  - (a) Refuelling equipment start up and servicing
  - (b) Firefighting arrangements
  - (c) Fuel quality checks
  - (d) Aircraft requirements prior to refuelling
- A.4.5.2 Refuelling
  - (a) Supervising the refuelling process
  - (b) Taking corrective actions when required
  - (c) Monitoring methods
  - (d) Sampling and data recording
  - (e) Safe working practices

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A.4.5.3 Shutdown refuelling process

- (a) Aircraft requirements for shutdown and restart
- (b) Effective communications to appropriate personnel
- (c) Refuelling equipment shutdown

<b>A.4.6 Controlling the Response to Helicopter Emergencies</b>
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***Give a detailed explanation of:***

- A.4.6.1 The responsibilities of the helideck team members in an emergency
- A.4.6.2 Hazards – fire, electrical and technical
- A.4.6.3 PPE requirements
- A.4.6.4 Aircraft types and how they affect the emergency response
- A.4.6.5 Emergency response arrangements
- A.4.6.6 Relevant equipment and controls – helideck and helicopter

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

- A.4.6.7 Monitoring of environmental conditions
- A.4.6.8 Directing the helideck crew in a clear and confident manner
- A.4.6.9 Effective communications with relevant personnel
- A.4.6.10 Directing entry to the incident area
- A.4.6.11 Supervising rescue of personnel with due regard to helideck team safety

<b>A.4.6 Controlling the Response to Helicopter Emergencies (cont'd)</b>
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- A.4.6.12 Controlling firefighting operations
- A.4.6.13 Controlling non-firefighting operations
- A.4.6.14 Supervising casualty management

## **A.5 Duration of Training**

The optimum 'contact time' for this training and assessment is seen as 15 hours.

It is suggested that a ratio of 30% : 70% theory to practical is appropriate.

The total contact time per day shall not exceed 8 hours.

The total training time in a day shall not exceed 10 hours (the total training time includes contact time, coffee and meal breaks, and travel time between training sites where applicable).

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## **A.6 Assessment**

Delegates will be assessed against the learning outcomes using direct observation and oral and/or written questions as appropriate.

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 HLO certificate is valid for a period of two years. Thereafter, further training should be undertaken. The Further Live Fire Scenario is conducted at TPTI Approved Training Centres and is undertaken by all offshore workers and should be completed every two years.

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## Further Live Fire Scenario Exercise

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

### B.1 Target Group

This program is designed to meet the further practice requirements not able to be met offshore for Offshore Helicopter Landing Officers. The HLO must attend the approved further onshore programs along with the full helideck team in order to practice the emergency response part of their duties.

### B.2 Delegate Prior Achievement

Attendance on this program is open to delegates who are in possession of a valid TPTI approved Offshore Helicopter Landing Officer certificate and a valid Offshore Emergency Helideck Team Member certificate or suitable alternative certification.

### B.3 Assessment Outcomes

Delegates will have previously demonstrated their knowledge and skills and will have been assessed as competent Offshore Helicopter Landing Officers. During this program, delegates will be given the opportunity to demonstrate, as detailed below, their knowledge and the actions required when dealing with live fire and rescue situations as the leader of an Offshore Emergency Helideck Team in aspects which they cannot reasonably practice offshore.

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

- B.3.1 Controlling the Emergency Helicopter Landing Preparations
- B.3.2 Controlling the preparations for entering the incident area
- B.3.3 Controlling emergency response entering the incident area
- B.3.4 Controlling rescue of personnel
- B.3.5 Controlling firefighting operations
- B.3.6 Controlling non-firefighting operations

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## Further Live Fire Scenario Exercise

### B.4 Training Program

The training program will be designed to give the delegate maximum opportunity to practice the offshore helicopter landing officer emergency response leadership skills previously developed. Where necessary, delegates should receive further training or coaching. At the end of the program the training provider should identify, to the employer, delegates requiring further development and training.

**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.**

#### Further Live Fire Scenario Exercises for HLOs

Provide exercises to enable delegates to **practise and demonstrate**:

- B.4.1 Controlling the emergency helicopter landing preparations
- B.4.2 Controlling the preparations for entering the incident area
- B.4.3 Controlling the emergency response while entering the incident area
- B.4.4 Controlling rescue of personnel
- B.4.5 Controlling firefighting operations
- B.4.6 Controlling non-firefighting operations

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<b>Further Live Fire Scenario Exercise</b>
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## **B.5 Duration of Further Practice**

The optimum 'contact time' for this program is seen as 10 hours.

It is suggested that a ratio of 5%/95% theory to practical is appropriate.

The total contact time per day shall not exceed 8 hours.

The total training time in a day shall not exceed 10 hours (the total training time includes contact time, coffee and meal breaks, and travel time between training sites where applicable).

## **B.6 Assessment**

Delegates will be assessed against the assessment outcomes in section B. 3 using direct observation and oral or written questions as appropriate.

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

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## RESOURCES

In order for a program to be delivered successfully it is essential that the right people are there 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 candidate's competence. It is important that the staff involved have the appropriate qualifications and experience.

### QUALIFICATIONS & EXPERIENCE

#### C.1.1 Instructional Staff

All instructional staff must be:

- (a) trained in instructional/lecture techniques and/or have proven instructing/teaching experience.
- (b) included in an ongoing staff training program, which includes visits to offshore oil and gas installations, to enable them to maintain and update skills and knowledge.
- (c) minimum experience qualification the trainer must have at least 5 years' experience in HLO; and at least 100 helicopter landing during the past 5 year is recommended

#### C.1.2 Assessors

Assessors must be discipline experts trained and qualified in assessment techniques.

#### C.1.3 All Staff

All staff must have the appropriate competencies to conduct/assist the element of training being conducted.

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## RESOURCES

### C.2 Trainer/Delegate Ratio

C.2.1. The maximum number of delegates attending this program is 16.

C.2.2 The minimum number of delegates attending this program is 4.

C.2.3 The following ratios indicate the maximum number of delegates to be supervised by one instructor at any one time during each activity.

Theory	1: 16
Demonstration	1: 16
Practical	1: 4

C.2.4 The maximum numbers and theory ratio may be exceeded to accommodate full company/installation fire/emergency response teams. In such cases, the practical ratios must not be exceeded.

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## RESOURCES

### C.3 Facilities

The following facilities criteria must be adhered to:

**Administration** arrangements to support delegates from booking through registration and assessment to certification

**Theory** training area(s) so designed to enable each delegate to participate fully.

**Practical** training areas so designed to enable each delegate, as part of a team, to participate fully in the helideck training and assessment requirements listed within this Standard.

For refuelling, loading and unloading of passengers, baggage and freight training, a mock up arrangement to simulate the processes required in the standard is allowed.

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

**The training establishment must conduct and record risk assessments of all training areas and provision of all safety equipment.**

### C.4 Equipment

**Equipment**, of a type found on offshore oil and gas installation helidecks for the conduct of the practical events listed within the standards of performance.

For refuelling, loading and unloading of passengers, baggage and freight training, a mock up arrangement to simulate the processes required in the standard is allowed.

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

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## GENERAL GUIDANCE & REQUIREMENTS

### C.5 Certification and Recording

Training Establishments are responsible for ensuring 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

Certificates to be endorsed "Only valid in conjunction with a current Helideck Team Member certificate"

- (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".

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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 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

### 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, medical certificate from the hospital, clinic, or clinical agents registered under Thai government, **or**
- 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  
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