

# **TPTI APPROVED STANDARDS**

**Offshore Emergency Response  
Team Member**

# TPTI Standard – Offshore Emergency Response Team Member

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<b>AMENDMENTS</b>				
<b>AMENDMENT</b>	<b>PAGES</b>	<b>CHANGES MADE BY:</b>	<b>CHECKED BY:</b>	<b>APPROVED BY:</b>

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

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**APPENDIX 1:** Trainers Guidance for Emergency Response Team Member  
Training, pg. 23-40

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## GLOSSARY

ABC	Airway Breathing Circulation
CR	Central Register
PPE	Personal Protective Equipment
TPTI	Technical Petroleum Training Institute

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## OFFSHORE EMERGENCY RESPONSE TEAM MEMBER

### Introduction

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

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. 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 key objective was to establish a basic competency based training standard appropriate to Thailand. It sets out the basic training, further practice and assessment requirements for Offshore Emergency Response Team Members which will be conducted at an onshore training establishment. The training establishment should recognize 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.

All personnel undertaking this training will have completed TPTI Basic Offshore Safety Training and/or TPTI Further Offshore Training or a suitable alternative program.

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## OFFSHORE EMERGENCY RESPONSE TEAM MEMBER

### A.1 Target Group

This program is designed to meet the initial onshore training and assessment requirements for Offshore Emergency Response Team Members.

### A.2 Delegate Prior Achievement

Attendance on this program is open to delegates who have previously attended TPTI Basic Offshore Safety Training and/or TPTI Further Offshore Training or a suitable alternative program.

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

### A.3 Learning Outcomes

**Delegates will explain/identify:  
(testing knowledge)**

1. Offshore hazards and hazardous areas
2. Emergency response process and procedure
3. Role and responsibility of Emergency Response Team Member
4. Teamwork and their application to offshore emergency response team
5. Type and use of PPE
6. Gaining access and work in the incident areas safely
7. Search and rescue trapped personnel
8. Casualty handling
9. Types, use and operation of fixed fire fighting systems
10. Types, use and operation of portable fire fighting equipment
11. Appropriate actions to deal with non fire incidents
12. Cleaning of service equipment and replenishing stocks
13. Establish and operate appropriate communication with other team members, specialists and casualties.

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## OFFSHORE EMERGENCY RESPONSE TEAM MEMBER

### A.3 Learning Outcomes (continued)

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

1. Select and use of portable firefighting equipment on the agreed range of fires
2. Select, operate and use foam equipment to extinguish a fire and/or secure an area
3. Don, operate, check and use working duration breathing apparatus during firefighting and rescue operation
4. Establish and maintain effective communications and operating communications equipment

### 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 EMERGENCY RESPONSE TEAM MEMBER

### A.4 Training Program (continued)

#### 1. Basic Study for Emergency Team Member

Give a detailed explanation of:

1. Types of Hazards and Hazardous Locations
2. Fire Hazards
3. Teamwork in Emergency

#### 2. Maintain a state of readiness

Give an explanation and demonstration of:

1. Pre-Incident Readiness
2. Fixed Fire System

#### 3. Respond to emergency and prepare to enter the incident area

Give an explanation and demonstration of:

1. Response to Alarms
2. Personal Protective Equipment (PPE)
3. Breathing Apparatus
4. Emergency Response to Non-Fire Incidents

#### 4. Enter the incident area and work safely

Give an explanation and demonstration of:

1. Gaining Access to the Incident Area
2. Working in the Incident Area

#### 5. Rescue personnel

Give an explanation and demonstration of:

1. Search and Rescue
2. Extricate personnel
3. Casualty Handling



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## OFFSHORE EMERGENCY RESPONSE TEAM MEMBER

### A.4 Training Program (continued)

#### 6. Carry out firefighting operations

**Give an explanation and demonstration of:**

1. Using Fixed Fire System
2. Using Portable Fire Fighting Equipment
3. Hoses & Branches

#### 7. Carry out non firefighting operations

**Give an explanation and demonstration of:**

1. Dealing with Non-Fire Incidents
2. Cleaning of service equipment

**Give an explanation of:**

1. Making Inventory and replenishing stocks

#### 8. Maintain effective communication

**Give an explanation and demonstration of:**

1. Types of Communication
2. Communication in Emergency

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## OFFSHORE EMERGENCY RESPONSE TEAM MEMBER

### A.4 Training Program (continued)

#### 9. Exercises: Selecting and using of portable firefighting equipment on the agreed range of fires

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

1. Installation emergency operating procedures
2. Firefighting procedures
3. Firefighting equipment - suitability, limitations, location
  - Portable fire equipment - larger mobile dry chemical extinguishers, hose reels, hose branches, monitor, hydrants
  - Foam equipment - inductor, branch, compound containers, flushing
  - Hose operations - running out, under running, making up, add length replace length, connect to ancillary equipment walkways, stairways, inside modules\
  - Fires Class A, Class C
    - Class B (spill, running, pressure)
  - Firefighting media - water, foam, gas, dry chemical
  - PPE - types, donning
  - Water for protection - personal, structural
  - Closed container exposed to fire

#### 10. Exercises: Selecting, operating and using of foam equipment to extinguish a fire and/or secure an area.

- Emergency operating procedures - installation, firefighting
- Fires Class A, Class C
  - Class B (spill, running, pressure)
- Foam - types of concentrate, application techniques, post fire security
- PPE - types, donning
- Fire, chemical

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## OFFSHORE EMERGENCY RESPONSE TEAM MEMBER

### A.4 Training Program (continued)

#### 11. Exercises: Donning, operating, wearer checking and using of working duration breathing apparatus during firefighting and rescue operations

- Layout of installation and incident area
- Installation and module design - open/closed, differing heights/levels, congested/confined
  - Visibility - good/poor
  - Methods of access
- Maintenance of means of escape
- Search and rescue
  - with BA - no smoke/in smoke
  - without BA - no smoke
- PPE - types, donning
- Fire chemical
- BA - types, control procedures
- Appropriate handling of casualties.
  - Casualty handling equipment - harnesses, slings, stretchers
  - Casualty handling - give consideration to: reassurance, airway, breathing, circulation, recovery position, control of bleeding

#### 12. Exercises: Establishing and maintaining effective communications and operating communications equipment.

- Communications - equipment, procedures
- Emergency response team activities relevant to non-fire incidents
- Non-fire incidents include:
  - hydrocarbon liquid spills and releases,
  - unignited and toxic gas releases, chemical, radiation

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## OFFSHORE EMERGENCY RESPONSE TEAM MEMBER

### A.5 Duration of Initial Training and Assessment

The optimum 'contact time' for this training and assessment program is seen as 32 hours.

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

- Total contact time per day should not exceed 8 hours.
- Total training time in a training day shall not exceed 10 hours

The total training time includes

- contact time
- coffee & meal breaks
- travel time between training sites where applicable

### A.6 Assessment

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 their emergency response role. Assessment of the candidates' performance will be against the stated training outcomes.

If required, further time and opportunity for coaching will be given to delegates to enable them to reach the standard leading to the award of a certificate. However, the time available for this during a program is limited and it should be recognised there may be occasions where other arrangements need to be made.

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## OFFSHORE EMERGENCY RESPONSE TEAM MEMBER

### A.7 Certification and Recording

A TPTI Certificate will be issued to all delegates assessed as meeting the stated outcomes. The issue of a certificate indicates that the delegate has achieved a level of competence to enable him/her to join an Offshore Emergency Response Team for further installation specific training and development.

Details of all delegates attending the training course and of all certificates issued will be recorded on the Central Register (CR) operated by TPTI.

Following satisfactory assessment, the training provider delivering the emergency training will, for every delegate:

- (a) Issue a certificate
- (b) Register the candidate with TPTI.

### A.8 Medical Standards for Emergency Response Team Members

The medical standards of fitness for Emergency Response Team members will be certified by a licensed medical practitioner under the current applicable Thai laws. The following examination shall be carried out:

- Urine check (for protein and sugar)
- Height, weight and resultant Body Mass Index calculation
- Blood pressure and pulse
- Basic eye sight test including colour vision
- Lung capacity check
- Hearing test
- Physical examination by a doctor: stature, breathing, reflexes etc.
- Review of medical history, and lifestyle e.g. alcohol consumption, exercise etc.

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## FURTHER LIVE FIRE SCENARIO EXERCISES

### B.1 Target Group

This program is designed to meet the further practice requirements not able to be met offshore, for Emergency Response Team Members, as identified in the UKOOA Guidelines for Competence and Training for Emergency Response.

### B.2 Delegate Prior Achievement

The interval between the initial training and assessment and subsequent further practice and assessment will be 2 years

Attendance on this program is open to delegates who are preferably in possession of either a current Offshore Emergency Response Team Member certificate or suitable alternative certification. However, a minimum requirement is that the delegate has previously undertaken emergency response team training

### B.3 Training Outcomes

Delegates will have previously demonstrated their knowledge and skills and will have been assessed as competent Emergency Response Team Members. During this program they will be given the opportunity to demonstrate, as detailed below, the knowledge and the actions required by a member of an Offshore Emergency Response Team when dealing with live fire and rescue situations as this will be in aspects involving live fires which they cannot reasonably practise offshore, e.g.:

- B.3.1 Entering and working in the fire incident area using best working practices and procedures.
- B.3.2 Locating and handling casualties
- B.3.3 Selecting and using portable firefighting equipment
- B.3.4 Extinguishing a fire and/or securing an area
- B.3.5 Conducting and controlling breathing apparatus operations

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## FURTHER LIVE FIRE SCENARIO EXERCISES

### B.4 Training Program

The program will be designed to give the delegate maximum opportunity to practise the team emergency response skills previously developed.

The initial exercises should be designed to test the skills, knowledge and understanding in relation to B.3.1 to B.3.6.

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.

### 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.

- Total contact time per day should not exceed 8 hours.
- Total training time on a training day shall not exceed 10 hours

The total training time includes

- contact time
- coffee & meal breaks
- travel time between training sites where applicable

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## RESOURCES

In order that a competence program may 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.

This section looks at each of these and sets out important guidelines.

### 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.

#### C.1.1 Instructional Staff

All instructional staff must:

- (a) have proven experience in firefighting and emergency response operations at a supervisory level.
- (b) be trained and qualified in instructional/lecture techniques and/or have proven instructing/teaching experience.
- (c) be included in an ongoing staff training program, which includes an induction to offshore emergency response team operations and visits to offshore oil and gas installations to enable them to maintain and update skills and knowledge.

#### C.1.2 Assessors

All Assessors must be:

- (a) Discipline experts trained and qualified in assessment techniques
- (b) Knowledgeable of the areas being assessed

#### C.1.1.3 All Staff

All staff must have:

- (a) appropriate qualifications and competencies to conduct/assist the element of training being conducted.



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## RESOURCES

### C.2 Instructor/Delegate Ratio

- (a) It is recommended that the ideal number of delegates attending this program is 12; however, the maximum should not exceed 16.
- (b) The minimum number of delegates attending the program is 4.
- (c) 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
Practical Breathing Apparatus	1:4
Other Practical	1:8

- (d) The maximum numbers and theory ratio may be exceeded to accommodate full company/installation fire/emergency response teams. In such cases the practical ratios should not be exceeded.

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## RESOURCES

### C.3 Facilities

Different facilities may be required and it is important to make sure that these are available.

**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 an individual or as part of a team, to participate fully in the following:

- (a) using fire hose, hose fittings, hydrants, hose branches, portable monitors, hose running and branch handling on walkways and stairways, against one or more of the following:
- Class A contained fire
  - Class B contained spill fire
  - Class B running fire,

for Class B, LPG may be used to simulate liquid fire,

- (b) isolating fuel valves on a hydrocarbon pressure fed fire whilst using water for structural and personal protection,
- (c) using foam producing equipment against hydrocarbon running and contained spill fires.
- (e) donning and wearing working duration breathing apparatus on open and enclosed multi-level structure(s) with a minimum of 3 levels with open and enclosed spaces on each level. The structure must be capable of:
- being smoke logged and heated using cosmetic, real smoke and fire
  - being accessed internally and externally by the use of stairs, fixed ladders and walkways
  - containing internal Class A contained fire(s), Class B contained spill fire(s), Class B pressure fed fire(s) and external Class B pressure fed fire(s), Class B and contained spill fire(s) and Class C fire(s)
  - allowing realistic firefighting operations to be conducted. For Class B, LPG may be used to simulate liquid fire,
- (f) firefighting and protecting a structure housing a simulated pressure vessel and associated pipe-work.

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## RESOURCES

### C.3 Facilities (Continued)

- Note:** 1. Each of the above facilities used for practical firefighting must be serviced by a water main with above ground hydrants fitted with control mechanisms of a type found on offshore oil and gas installations. The water pumping capacity must be adequate for the expected maximum usage and be capable of maintaining pressure at the hydrants even at times of exceptional demand, also there should be a standby capacity of 75% with regard to water.
2. All pressure fed fires must be capable of being isolated immediately in the event of an emergency or a failure in the firefighting water supply.

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

### C.4 Equipment (of a type found on offshore oil and gas installations)

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

- (a) Portable Extinguishers - water, foam and dry chemical
- (b) Water fire hose reel
- (c) Fire hose, couplings, branches, monitors
- (d) Foam inductors and branches
- (e) Stretchers
- (f) Working duration breathing apparatus and cylinders
- (g) Breathing apparatus entry control equipment.

#### C.4.1 Equipment - safety

- (a) First Aid
- (b) Resuscitation

#### C.4.2 Equipment - other

- (a) Training dummies
- (b) PPE
- (c) Firefighting equipment

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

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## GENERAL GUIDANCE & REQUIREMENTS

### C.5 Certification and Recording

A TPTI Certificate will be issued to all delegates assessed as meeting the stated outcomes. The issue of a certificate indicates that the delegate has achieved a level of competence to enable him/her to join an Offshore Emergency Response Team for further installation specific training and development.

Details of all delegates attending the training course and of all certificates issued will be recorded on the Central Register (CR) operated by TPTI.

Following satisfactory assessment, the training provider delivering the emergency training will, for every delegate:

- (a) issue a certificate
- (b) register the candidate with TPTI

### C.6 Medical & Health Requirement

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) Undergo 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

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## GENERAL GUIDANCE & REQUIREMENTS (cont)

### C.7 General Requirements

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
  - Delegate's Name
  - Course Dates
  - Expiry Date
  - Certificate Number
  - Establishment Signatory
- (b) Each individual attending any TPTI approved program must be registered with the Central Register (CR) operated by TPTI. Registrations must be made by the training establishment to TPTI on a weekly basis.
- (c) All Joining Instructions contain information that indicates certain aspects of the program are of a physical nature. Selection for membership of, and continued membership of the Emergency Response Team must be dependant on appropriate medical and fitness standards being met. Medical standards of fitness will be as detailed in Section A.7.
- (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 licensed medical practitioner. The Medical Standards of Fitness for Emergency Response Team Members will be as detailed in Section A.7.
- (f) A licensed medical practitioner is "on call".
- (g) Risk assessment of all training areas and provision of all appropriate safety equipment.

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## GENERAL GUIDANCE & REQUIREMENTS

### C.7 General Requirements (Continued)

- (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.

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](mailto:admin@tpti.org)

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## Appendix 1.

### GUIDANCE TO THE TRAINER

#### Offshore Emergency Response Team Member

#### 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 32 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 hours in a day should not exceed 10 hours.

<u>Content</u>	<u>Optimum Contact Time (hrs)</u>
1. Registration and Safety	Not included
2. Introduction	10 min.
3. Basic Study for Emergency Team Member	1 hrs. 20 min.
4. Maintain a state of readiness	50 min.
5. Respond to emergency and prepare to enter the incident area	1 hrs. 45 min.
6. Enter the incident area and work safely	1 hr
7. Rescue personnel	45 min.
8. Carry out firefighting operations	60 min.
9. Carry out non firefighting operations	30 min.
10. Maintain effective communication	40 min
<b>Subtotal theory</b>	<b><u>8 hrs</u></b>
11 Exercise	24 hrs
<b>Subtotal exercises</b>	<b><u>24 hrs</u></b>
<b>Total Optimum Contact Time</b>	<b>32 hours (1,920 mins)</b>

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## Instructor's Guide – Offshore Emergency Response Team Member

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)



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**Instructor's Guide – Offshore Emergency Response Team Member**

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)

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## Instructor's Guide – Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4 1. Basic Study for Emergency Team Member 1. Pg. 8	<b>Types of Hazards and Hazardous Locations</b>	<ul style="list-style-type: none"> <li>• Fire Hazards, electrical and technical hazards</li> <li>• Non-fire hazards: <ul style="list-style-type: none"> <li>- hydrocarbon liquid spills and releases</li> <li>- un-ignited and toxic gas releases</li> <li>- chemical, radiation</li> </ul> </li> <li>• Hazardous Areas Classification</li> </ul>	E		Visual Aids	15 mins
A.4 1. Basic Study for Emergency Team Member 2. Pg. 8	<b>Fire Hazards</b>	<ul style="list-style-type: none"> <li>• Chemistry of Fire <ul style="list-style-type: none"> <li>- Triangle of Combustion</li> <li>- Extinguish Different Types of Fire</li> </ul> </li> <li>• Material Classifications <ul style="list-style-type: none"> <li>- Flammable</li> <li>- Combustible</li> </ul> </li> <li>• Fuel Properties <ul style="list-style-type: none"> <li>- Flash Point</li> <li>- Ignition Temperature</li> <li>- Spontaneous Ignition Temperature</li> </ul> </li> <li>• Methods of Fire Spread <ul style="list-style-type: none"> <li>- Conduction</li> <li>- Convection</li> <li>- Radiation</li> </ul> </li> <li>• Classes of Fire <ul style="list-style-type: none"> <li>- UK System</li> <li>- US System</li> </ul> </li> </ul>	E		Visual Aids	45 mins

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)

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## Instructor's Guide – Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4. 1. Basic Study for Emergency Team Member 3. Pg. 8	<b>Teamwork in Emergency</b>	<ul style="list-style-type: none"> <li>• What is Teamwork</li> <li>• The elements of teamwork and their application to offshore emergency response teams:                             <ul style="list-style-type: none"> <li>- the role and responsibility of the Team Leader</li> <li>- individual, team and task needs</li> <li>- physical and psychological needs</li> <li>- discipline, confidence, team spirit, safety, leadership</li> </ul> </li> </ul>	E		Visual Aids	30 mins
A.4. 2. Maintain a state of readiness 1. Pg. 9	<b>Pre-Incident Readiness</b>	<ul style="list-style-type: none"> <li>• Familiarization and Basic Awareness of:                             <ul style="list-style-type: none"> <li>- Layout of the installation</li> <li>- Installation emergency response arrangements</li> <li>- Types of Alarms</li> <li>- Initial Response to Alarms</li> </ul> </li> <li>• Emergency Response Process                             <ul style="list-style-type: none"> <li>- Initial Stage</li> <li>- Tactical Priorities</li> <li>- Strategies</li> <li>- Pre-planning for Incidents</li> </ul> </li> <li>• Role and responsibility of Emergency Response Team Member</li> <li>• Incident planning and monitoring progress                             <ul style="list-style-type: none"> <li>- Appreciation of key assessments being made</li> <li>- Layout of incident area</li> </ul> </li> </ul>	E		Visual Aids	20 mins

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)

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## Instructor's Guide - Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4. 2. Maintain a state of readiness 2. Pg. 9	<b>Fixed Fire System</b>	Equipment and controls of Fixed fire system: <ul style="list-style-type: none"> <li>• Detection Systems – Automatic, Manual</li> <li>• Fire Hydrants and Isolation Valves</li> <li>• Fire Water Deluge System</li> <li>• Inert Gas Systems</li> <li>• Fire Sprinklers</li> <li>• Drenchers Systems</li> </ul>	E		Visual Aids	30 mins
A.4. 3. Respond to emergency and prepare to enter the incident area 1. & 2. Pg. 9	<b>Response to Alarms</b>	<ul style="list-style-type: none"> <li>• Alarm response procedures for gas, fire, and general incidents</li> <li>• Muster point assembly</li> <li>• Muster procedure</li> </ul>	E		Visual Aids	15 mins
	<b>Personal Protective Equipment (PPE)</b>	<ul style="list-style-type: none"> <li>• Type, use and limitations of PPE:                             <ul style="list-style-type: none"> <li>- Chemical suit,</li> <li>- Fire clothing,</li> <li>- Goggles, gloves, boots, and hardhat</li> <li>- Breathing apparatus</li> </ul> </li> </ul>	E		Visual Aids	30 mins

E - Explanation (by training staff)

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## Instructor's Guide - Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4. 3. Respond to emergency and prepare to enter the incident area 3. Pg. 9	<b>Breathing Apparatus</b>	<ul style="list-style-type: none"> <li>• Purpose of BA</li> <li>• Donning and adjusting of BA</li> <li>• Pressure Tests                             <ul style="list-style-type: none"> <li>- High /Low Pressure</li> </ul> </li> <li>• BA Entry Control Board</li> <li>• BA Entry Control Officer</li> <li>• Entry Control Points</li> <li>• Tallies</li> <li>• Shut-down Procedures</li> <li>• Pre-Entry Checks</li> </ul>	E,D		Visual Aids BA set BA Entry Control Board	30 mins
A.4. 3. Respond to emergency and prepare to enter the incident area 4. Pg. 9	<b>Emergency Response to Non-Fire Incidents</b>	<ul style="list-style-type: none"> <li>• Emergency response team activities relevant to non-fire incidents including:                             <ul style="list-style-type: none"> <li>- hydrocarbon liquid spills and releases</li> <li>- un-ignited and toxic gas releases</li> <li>- chemical, radiation</li> <li>- hazards involved, emergency control procedures in place, control and mitigation techniques</li> </ul> </li> </ul>	E		Visual Aids	30 mins

E - Explanation (by training staff)

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## Instructor's Guide - Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4. 4. Enter the incident area and work safely 1. Pg. 9	<b>Gaining Access to the Incident Area</b>	<ul style="list-style-type: none"> <li>• Considerations and actions prior to entry and whilst entering the incident area including:               <ul style="list-style-type: none"> <li>- layout of installation and incident area</li> <li>- installation emergency operating procedure</li> <li>- firefighting techniques</li> <li>- BA control procedure</li> <li>- water for protection - personal, structural</li> <li>- Closed containers exposed to fire (e.g. drums, tanks, separators, etc.)</li> </ul> </li> </ul>	E		Visual Aids	15 mins
A.4. 4. Enter the incident area and work safely 2. Pg. 9	<b>Working in the Incident Area</b>	<ul style="list-style-type: none"> <li>• Movement Strategies and Techniques through the Incident Area:               <ul style="list-style-type: none"> <li>- Upright (BA Shuffle)</li> <li>- Ascending/Descending Stairs and Ladders</li> <li>- Crawling Methods Appropriate to the Circumstances</li> </ul> </li> <li>• Effects of smoke, heat, darkness, poor visibility, weather conditions and the construction of the incident area</li> <li>• Choosing and maintaining safety escape routes</li> </ul>	E		Visual Aids	45 mins

E - Explanation (by training staff)

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## Instructor's Guide - Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4. 5. Rescue personnel 1. Pg. 9	<b>Search and Rescue</b>	<ul style="list-style-type: none"> <li>• Search techniques in different environments:                             <ul style="list-style-type: none"> <li>- open/closed area</li> <li>- differing heights/levels,</li> <li>- congested/confined space</li> <li>- Good/poor visibility</li> </ul> </li> <li>• Effect of Heat and Humidity</li> <li>• Room Search Patterns</li> <li>• Methods of access</li> <li>• Maintenance of means of escape</li> <li>• Search and rescue with BA – no smoke/ in smoke</li> <li>• Search and rescue without BA – no smoke</li> <li>• Rescue Priorities</li> <li>• Working in Smoke</li> <li>• Lost in Smoke</li> <li>• Summoning Assistance</li> </ul>	E,D		Visual Aids	15 min.
A.4. 5. Rescue personnel 2. Pg. 9	<b>Extricate personnel</b>	<ul style="list-style-type: none"> <li>• Consideration to be taken into account when extricating trapped personnel</li> <li>• Entrapped Procedure</li> <li>• Emergency Evacuation Procedure</li> </ul>	E		Visual Aids	10 mins

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## Instructor's Guide - Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4. 5. Rescue personnel 3. Pg. 9	<b>Casualty Handling</b>	<ul style="list-style-type: none"> <li>• Priority                             <ul style="list-style-type: none"> <li>- Assess the Situation</li> <li>- Make the Area Safe</li> <li>- Give Emergency Aid</li> <li>- Preserve Life</li> <li>- Limit the Effects</li> <li>- Promote Recovery</li> </ul> </li> <li>• Treatment for casualties, including:                             <ul style="list-style-type: none"> <li>- Airway, breathing and circulation (ABC) resuscitation</li> <li>- Airway maintenance</li> <li>- Establish breathing (manually, automatically),</li> <li>- Cardiac massage</li> <li>- Stop bleeding (direct/indirect pressure)</li> <li>- Correct positioning and giving reassurance/comfort</li> </ul> </li> </ul> <p><b>Note:</b> The emphasis here must be on casualty handling and not treatment of casualties. It is envisaged that further information/training on the treatment of casualties will be available elsewhere (e.g. installation medic, formal first aid training, etc).</p>	E,D		Visual Aids Model Medical kits	10 mins

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)



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## Instructor's Guide - Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4. 5. Rescue personnel 3. Pg. 9	<b>Casualty Handling</b> (continued)	<ul style="list-style-type: none"> <li>• Manual Handling</li> <li>• Handling equipment and techniques using:                             <ul style="list-style-type: none"> <li>- hoists</li> <li>- harnesses</li> <li>- slings</li> <li>- stretchers</li> </ul> </li> <li>• Do's and Don'ts</li> </ul>	E,D		Visual Aids Handling equipment	10 mins

E - Explanation (by training staff)

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## Instructor's Guide - Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4. 6. Carry out firefighting operations 1. & 2. Pg. 9	<b>Using Fixed Fire System</b>	<ul style="list-style-type: none"> <li>• Uses and limitations of fixed systems</li> <li>• Monitoring and control of fixed fire system including:                             <ul style="list-style-type: none"> <li>- Water Pumping Capacity</li> <li>- Control Mechanisms</li> <li>- Water pressure</li> <li>- Stan-by reserves</li> </ul> </li> </ul>	E		Visual Aids	15 mins
	<b>Using Portable Fire Fighting Equipment</b>	<ul style="list-style-type: none"> <li>• Use, suitability and limitations of extinguishers:                             <ul style="list-style-type: none"> <li>- Water, CO2, foam and dry chemical extinguishers</li> <li>- Larger mobile dry chemical extinguishers, hose reels, hose branches, monitor, hydrants</li> </ul> </li> <li>• Foam equipment : inductor, branch, compound containers, flushing</li> <li>• Foams and Running Fuel Fire</li> <li>• Foam concentrates</li> <li>• Foam Types</li> <li>• Application techniques                             <ul style="list-style-type: none"> <li>- Bounce Off</li> <li>- Bank In</li> <li>- Rain Down</li> <li>- Never Plunge</li> </ul> </li> </ul>	E		Visual Aids	30 mins

E - Explanation (by training staff)

D - Demonstration (by training staff)

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## Instructor's Guide - Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4. 6. Carry out firefighting operations 3. Pg. 9	<b>Hose &amp; Branch</b>	<ul style="list-style-type: none"> <li>• Hose &amp; Branch Selection</li> <li>• Hose Make up – Dutch/ Conventional/ Flake</li> <li>• Running out hose using the rolled on female couplings and Dutch rolled methods</li> <li>• Under running</li> <li>• Making up hoses using rolled out female coupling and Dutch rolled methods</li> <li>• Holding branches</li> <li>• Adding length                             <ul style="list-style-type: none"> <li>- to hose</li> <li>- at supply</li> <li>- at branch</li> <li>- burst lengths</li> </ul> </li> <li>• Making connection to ancillary equipment i.e., walkways, stairways, inside modules</li> <li>• Application of Monitors</li> </ul>	E		Visual Aids	15 mins

E - Explanation (by training staff)

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## Instructor's Guide - Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4. 7. Carry out non-firefighting operations 1. Pg. 10	<b>Dealing with Non-Fire Incidents</b>	<ul style="list-style-type: none"> <li>• Plant and equipment isolation procedures</li> <li>• Characteristics and dangers associated with gases, fuels, chemicals and radiation</li> <li>• Choice of actions to be taken in different circumstances including:                             <ul style="list-style-type: none"> <li>- un-ignited gas releases</li> <li>- un-ignited fuel spillages</li> <li>- chemicals</li> <li>- radiation</li> <li>- toxic gas releases</li> </ul> </li> <li>• Extricating trapped personnel</li> </ul>	E		Visual Aids	30 mins

E - Explanation (by training staff)

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## Instructor's Guide - Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4. 8. Maintain effective communication 1. & 2. Pg. 10	<b>Types of Communication</b>  <b>Communication in Emergency</b>	<ul style="list-style-type: none"> <li>• Communication and control limitations and difficulties in offshore emergency incidents</li> <li>• Methods and channels of communication:                             <ul style="list-style-type: none"> <li>- PA System</li> <li>- Personal radio</li> <li>- Telephone</li> <li>- Vocal</li> </ul> </li> <li>• Operation of Personal radios, Fixed telephone and other communication equipment</li> <li>• Appropriate manner in communication:                             <ul style="list-style-type: none"> <li>- Prompt</li> <li>- Controlled</li> <li>- Clarity</li> </ul> </li> </ul>	E  E  E,D  E,D		Visual Aids	45 mins

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## Instructor's Guide - Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4. 9. Exercises Pg. 10	The selecting and using of portable firefighting equipment on the agreed range of fires	<ul style="list-style-type: none"> <li>- Installation emergency operating procedures</li> <li>- Firefighting procedures</li> <li>- Firefighting equipment - suitability, limitations, location</li> <li>- Portable fire equipment - larger mobile dry chemical extinguishers, hose reels, hose branches, monitor, hydrants</li> <li>- Foam equipment - inductor, branch, compound containers, flushing</li> <li>- Hose operations - running out, under running, making up, add length replace length, connect to ancillary equipment walkways, stairways, inside modules</li> <li>- Fires Class A, Class C Class B (spill, running, pressure)</li> <li>- Firefighting media - water, foam, gas, dry chemical</li> <li>- PPE - types, donning</li> <li>- Fire, chemical</li> <li>- Water for protection - personal, structural</li> <li>- Closed container exposed to fire</li> </ul>		E,D,P	Water Extinguishers CO2 Extinguishers Foam Extinguishers Dry Powder Extinguishers	8 hrs

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## Instructor's Guide - Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4. 10. Exercises Pg. 11	The donning, operating, wearer checking and using of working duration breathing apparatus during firefighting and rescue operations	<ul style="list-style-type: none"> <li>- Layout of installation and incident area</li> <li>- Installation and module design - open/closed, differing heights/levels, congested/confined</li> <li>- Visibility - good/poor</li> <li>- Methods of access</li> <li>- Maintenance of means of escape</li> <li>- Search and rescue                             <ul style="list-style-type: none"> <li>- with BA - no smoke/in smoke</li> <li>- without BA - no smoke</li> </ul> </li> <li>- PPE - types, donning</li> <li>- Fire chemical</li> <li>- BA - types, control procedures</li> <li>-</li> </ul>		E,D,P		6 hrs
A.4. 11. Exercises Pg. 11	Appropriate handling of casualties	<ul style="list-style-type: none"> <li>- Casualty handling equipment - harnesses, slings, stretchers</li> <li>- Casualty handling - give consideration to: reassurance, airway, breathing, circulation, recovery position, control of bleeding</li> <li>-</li> </ul>		E,D,P		6 hrs

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## Instructor's Guide - Offshore Emergency Response Team Member

Ref TPTI Std	Subject	Key Topics	Th	P	Resource	Time
A.4. 12. Exercises Pg. 11	The establishing and maintaining of effective communications and operating communications equipment	<ul style="list-style-type: none"> <li>- Communications - equipment, procedures</li> <li>- Emergency response team activities relevant to non-fire incidents</li> <li>- Non-fire incidents include:                             <ul style="list-style-type: none"> <li>• hydrocarbon liquid spills and releases,</li> <li>• unignited and toxic gas releases, chemical, radiation</li> </ul> </li> </ul>		E,D,P		4 hrs

E - Explanation (by training staff)

D - Demonstration (by training staff)

P - Practice (by delegate)