

Description Sheet

Further Offshore Emergency Training (with Compressed Air Emergency Breathing System) (8hrs)



Rev. 01.22/02/2022

Description Training

OPITO has been setting standards for the oil and gas industry since 1991 to help improve workforce safety and competence - over 350,000 people per year train to OPITO Standards across the globe.

In partnership with industry stakeholders, OPITO identifies the needs and requirements for new and improved training and competence standards for both onshore and offshore. O Opito produce world-class, industry-driven standards that are recognised globally and we ensure that your approved training providers deliver training in compliance with these standards.

Learning outcomes of the FOET (with CA-EBS) Program content / Workload

Unit Code	Unit Title
OIS-80	Further Helicopter Safety and Escape CA-EBS
OIS-74	Further Firefighting and Self Rescue
OIS-75	Further Emergency First Aid

Unit Code	OIS-80
Title	Further Helicopter Safety and Escape CA-EBS
Guided Learning Hours	4 hours 15 minutes
OUTCOMES	
1. Outcome: Use of Compressed Air Emergency Breathing System (CA-EBS) The learner will understand	
CRITERIA	
1.1 The principles of compressed air emergency breathing systems (CA-EBS)	
1.2 The principles of other typical emergency breathing systems (EBS) used in the oil and gas industry (i.e. re-breather systems)	
1.3 The components and elements of the CA-EBS, including:	
1.3.1	Hose (if fitted)
1.3.2	Mouthpiece
1.3.3	Cylinder

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- 1.3.4 Demand Valve
 - 1.3.5 Pressure indicator
 - 1.3.6 On/Off ratchet/knob (if fitted)
 - 1.3.7 On/Off Status Indicator (if fitted)
 - 1.3.8 Purge button
 - 1.3.9 Nose clip (if fitted)
 - 1.3.10 Charging Port
- 1.4 The operation of the compressed air EBS equipment in conjunction with other survival equipment:
- 1.4.1 Life jacket
 - 1.4.2 Survival suit (including importance of correctly sized suit)
 - 1.4.3 Personal Locator Beacon (PLB)
- 1.5 The hazards associated with compressed air EBS:
- 1.5.1 Medical hazards associated with lung over-expansion injuries
 - 1.5.2 Gasp reflex associated with cold water entry shock
 - 1.5.3 Coughing
 - 1.5.4 Dislodged mouthpiece (accidental or intentional)
 - 1.5.5 Accidental or deliberate loss of air including purging and hazards of incorrect purging
 - 1.5.6 Running out of air
- 1.6 The pre-donning checks on the life jacket and compressed air EBS, including:
- 1.6.1 Pressure indicator reading
 - 1.6.2 Appropriate on/off status indicator (if fitted)
 - 1.6.3 Ratchet knob on/off (if fitted)
- 1.7 How to don the life jacket complete with compressed air EBS:
- 1.7.1 Ensuring life jacket waist belt is not twisted (if fitted)
 - 1.7.2 Fastening of life jacket
 - 1.7.3 Adjustment of waist belt to ensure correct fit
 - 1.7.4 Engagement of crotch strap ensuring a correct fit and roll away and securing of excess webbing (if fitted)
 - 1.7.5 Ensure CA-EBS mouthpiece is correctly fitted
 - 1.7.6 Ensure CA-EBS hose is correctly fitted (where appropriate)
- 1.8 Deployment of CA-EBS, including:
- 1.8.1 One handed deployment of the mouthpiece and nose clip in accordance with manufacturers' guidelines
 - 1.8.2 How to achieve a good seal around mouthpiece
 - 1.8.3 How to purge water from the mouthpiece

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<p>1.8.4 How to recover a dislodged mouthpiece 1.8.5 Use of demand valve</p>
<p>OUTCOMES</p>
<p>2. Outcome: Use of Compressed Air Emergency Breathing System (CA-EBS) The learner will understand</p>
<p>CRITERIA</p>
<p>2.1 The pre-donning checks on the lifejacket and compressed air EBS, including:</p> <ul style="list-style-type: none"> 2.1.1 Pressure indicator reading 2.1.2 Appropriate on/off status indicator (if fitted) 2.1.3 Ratchet knob on/off (if fitted) <p>2.2 How to don the life jacket completely with compressed air EBS:</p> <ul style="list-style-type: none"> 2.2.1 Ensuring life jacket waist belt is not twisted (if fitted) 2.2.2 Fastening of life jacket 2.2.3 Adjustment of waist belt to ensure correct fit 2.2.4 Engagement of crotch strap ensuring a correct fit and roll away and securing of excess webbing (if fitted) 2.2.5 Ensure CA-EBS mouthpiece is correctly fitted 2.2.6 Ensure CA-EBS hose is correctly fitted (where appropriate) <p>2.3 Deployment of CA-EBS, including:</p> <ul style="list-style-type: none"> 2.3.1 One handed deployment of the mouthpiece and nose clip in accordance with manufacturers' guidelines 2.3.2 How to achieve a good seal around mouthpiece 2.3.3 How to purge water from the mouthpiece 2.3.4 How to recover a dislodged mouthpiece 2.3.5 Use of demand valve
<p>OUTCOMES</p>
<p>3. Outcome: Use of Compressed Air Emergency Breathing System (CA-EBS) The learner will understand</p>
<p>CRITERIA</p>
<p>3.1 Donning of an aviation transit suit, an aviation lifejacket, compressed air emergency breathing system (CA- EBS) equipment and conducting integrity checks of the CA-EBS equipment, including buddy checks</p>

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3.2 Deploying (left and right hand) and breathing from CA-EBS equipment at atmospheric pressure in dry conditions

3.3 Actions to take in preparing for a helicopter emergency landing

3.4 Following instruction from the crew, location of CA-EBS equipment and evacuation from a helicopter using a nominated exit, following a controlled emergency descent to a dry landing (conducted in helicopter simulator at poolside on dry land)

3.5 Actions to be taken in preparing for an in-water ditching including location of exit, deploying and breathing from CA-EBS equipment at atmospheric pressure in dry conditions (conducted in helicopter simulator at poolside on dry land)

3.6 Dry evacuation, using a nominated exit, to an aviation life raft from a helicopter ditched on water (and, on instructions from the aircrew, operation of a push out window), assisting others where possible and carrying out initial actions on boarding the aviation life raft, to include: mooring lines, deploying the sea anchor, raising the canopy and raft maintenance

3.7 Escaping through a window opening which is underwater, from a partially submerged helicopter (without operation of a push out window)

3.8 Escaping through a window opening which is underwater, from a partially submerged helicopter (with operation of a push out window)

3.9 Escaping through a window opening which is underwater, from a capsized helicopter (without operation of a push out window)

3.10 Inflation of an aviation lifejacket, deployment of a spray visor and carrying out in-water procedures (including individual and group survival techniques) – swimming, HELP, towing, chain, huddle and circle

3.11 Boarding of an aviation liferaft from the water

3.12 Being rescued by one of the recognised methods available offshore

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OUTCOMES	
4. Outcome: Additional CA-EB Training (In-Water)	
The learner will perform:	
CRITERIA	
4.1 Deploying CA-EBS (above the watersurface) and breathing from the CA-EBS in a pool, face down in shallow water (at a maximum depth of 0.7m, measured at the chest)	
4.2 Deploying CA-EBS (below the water surface, face down in a pool in shallow water) and clearing the mouthpiece by exhaling under the water surface (at a maximum depth of 0.7m, measured at the chest)	
4.3 Deploying CA-EBS (below the water surface, face down in a pool in shallow water, using opposite hand to previous exercise) and clearing with purge button under the water surface (at a maximum depth of 0.7m, measured at the chest)	
4.4 Deploying CA-EBS (above water surface), in a pool and breathing from CA-EBS underwater in a vertical position (at a maximum depth of 0.7m, measured at the chest)	
4.5 Deploying CA-EBS (underwater), in a pool and breathing from CA-EBS underwater in a vertical position (at a maximum depth of 0.7m, measured at the chest)	
4.6 Deploying CA-EBS (underwater), in a pool, breathing from CA-EBS underwater, and moving along a horizontal rail for a period of no less than 30 seconds, including a change in direction (at a maximum depth of 0.7m, measured at the chest)	

Unit Code	OIS-74
Title	Further Firefighting and Self Rescue
Guided Learning Hours	2 hours 35 minutes
OUTCOMES	
1. Outcome: Raising the alarm and operation of hand-held extinguishers	
The learner will perform	
CRITERIA	

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1.1 Raising the alarm on discovery of a fire
1.2 Correct operation of handheld portable fire extinguishers in extinguishing Class A or Class B fires. (See Scope)
OUTCOMES
2. Outcome: Self-Rescue Techniques The learner will perform:
CRITERIA
2.1 Techniques with a smoke hood or partial blindfold from areas where learner visibility is reduced.
2.2 Self-rescue techniques with a smoke hood or partial blindfold from areas where learner visibility is completely obscured. This exercise may be achieved by conducting exercises in darkness or by using “blacked out” smoke hoods or partial blindfolds. Note: smoke hoods to be used in cosmetic smoke only.
2.3 Small group escape techniques with a smoke hood or partial blindfold from areas where learner visibility is completely obscured concluding with a muster exercise This exercise may be achieved by conducting exercises in darkness or by using “blacked out” smoke hoods or partial blindfolds. Note: smoke hoods to be used in cosmetic smoke only.

Unit Code	OIS-75
Title	Further Emergency First Aid
Guided Learning Hours	1 hour
OUTCOMES	
1. Outcome: Emergency First Aid The learner will understand:	
CRITERIA	
1.1	First aid arrangements
1.2	Types of injuries, to include:
1.2.1	Bleeding
1.2.2	Burns

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1.2.3 Chemical contact
1.3 Prioritising Actions
1.4 Immediate first aid actions prior to the arrival of the medic/first-aider, to include: <ul style="list-style-type: none">1.4.1 Assessing the situation – do not put yourself (or others) in danger.1.4.2 Making the area safe.1.4.3 Assess all casualties and attend to any unconscious casualties.1.4.4 Send for help as soon as possible.
1.5 Raising the alarm
1.6 Assessing the situation.
1.7 Checking the area is safe
1.8 Checking airways, breathing and industry recognised first aid practice* * Industry recognised first aid practice –this may vary depending on first aid practice guidelines adopted in different countries/regions
1.9 Putting casualty in the recovery position
OUTCOMES
2 Outcome: Immediate first aid techniques The learner will perform::
CRITERIA
2.1 Raising the alarm
2.2 Assessing the situation
2.3 Checking the area is safe
2.4 Industry recognised first aid practice*
* Industry recognised first aid practice –this may vary depending on first aid practice guidelines adopted in different countries/regions

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Practical training

Practical training areas designed to enable each learner to individually, or as part of a team, to view, hear and practise the following:

- (1) Dry evacuation into an aviation liferaft on water from a helicopter trainer.
- (2) Escape from a partially submerged helicopter trainer through an exit that is underwater.
- (3) Escape from a capsized helicopter trainer and use of a lifejacket.
- (4) Evacuate from a helicopter trainer following an emergency dry landing.
- (5) Operation of emergency exits and push-out windows of a type currently found on helicopters operating offshore.
- (6) Donning of compressed air emergency breathing system equipment and an aviation lifejacket
- (7) Operation and use of compressed air emergency breathing system
- (8) Operation of an aviation liferaft.
- (9) The donning of a permanent buoyancy life jacket.
- (10) The use of a helicopter lifting device and winching to a simulated rescue aircraft.
- (11) The boarding of a marine life raft from the water
- (12) In-water procedures, including individual and group survival techniques, followed by rescue by one of the recognised methods available offshore.
- (13) Mustering, boarding and strapping in as a TEMPSC passenger (the craft then to be lowered into water to float and be released).
- (14) The use of portable fire extinguishers on a range of fires of surface area 0.1 m² to 1.0 m² against the following:
 - (a) Class A fire
 - (b) Class B contained spill.
- (15) The donning and wearing of a smoke hood in an area that can be smoke logged using cosmetic smoke.
- (16) Dedicated concreted area with adequate drainage to allow the delivery of all firefighting exercises for 16 learners, instructors and support staff.

Training Organization Form

Face to Face Presential

Training Methodologies

The methods to be used will be expository, demonstrative and participatory / active.

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Learning Assessment Methodologies Learning outcomes of the FOET (with CA-EBS)

Unit Code	Unit Title	Assessment Methodologies
OIS-80	Further Helicopter Safety and Escape CA-EBS	<p>Assessment Guidance for Outcome 1</p> <p>Students will take a written test at the end of the Unit OIS-80 as a method of verifying that they have achieved all learning outcomes. The test will be "open book" and the questions must be clearly referenced in relation to the specific learning outcomes of the Unit in question.</p> <p>Assessment Guidance for Outcome 2-4</p> <p>The practical evaluation of the training is carried out by carrying out the practical exercises, covering all the specific criteria. Students must successfully complete the practical exercises. The assessment method will be practical observation using the observation grid used to record the individual learning of each trainee.</p> <p>Note 1: CA-EBS equipment must not be worn during exercises 3.6 thru 3.10</p> <p>Note 2: In addition to explanations provided by training staff, demonstrations for HUET Exercises 3.6 to 3.9 must be provided using video footage</p>
OIS-74	Further Firefighting and Self Rescue	<p>The practical evaluation of the training is carried out by carrying out the practical exercises, covering all the specific criteria. Students must successfully complete the practical exercises. The assessment method will be practical observation using the observation grid used to record the individual learning of each trainee.</p> <p>Learners must successfully complete all practical exercises in order to achieve thisUnit:</p> <ol style="list-style-type: none"> (1) All practical sessions involving the use of the above equipment must include the appropriate procedure on discovering a fire with emphasis on raising the alarm. (2) The outcomes of this standard will be satisfied when

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		each learner practices the operation and use of each of the following types of fire extinguisher:(a) Water orfoam(b) CO2(c) Dry chemical (3) Although class A and B fuels must be used for demonstration fires by staff, simulation using LPG may be used for delegate practical exercises.
OIS-75	Further Emergency First Aid	Assessment Guidance for Outcome 1 Students will take a written test at the end of the Unit OIS-75 as a method of verifying that they have achieved all learning outcomes. The test will be "open book" and the questions must be clearly referenced in relation to the specific learning outcomes of the Unit in question. Assessment Guidance for Outcome 2 The practical evaluation of the training is carried out by carrying out the practical exercises, covering all the specific criteria. Students must successfully complete the practical exercises. The assessment method will be practical observation using the observation grid used to record the individual learning of each trainee.

Pedagogical resources / Spaces and equipment

Audiovisual and technical material to be made available in each action: room with adequate furniture; video projector; blackboard and others.

Each learner will be given a Training Support Manual.

According to the needs detected at the level of specific resources to be used by the trainers, these will be requested by the same.

Equipment

The following equipment, of a type in use regionally on offshore oil and gas installations and helicopters involved in offshore operations, is required to meet the needs of the training programme.

(1) Aviation and marine lifejackets

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- (2) Cosmetic smoke generator
- (3) Sufficient Compressed Air Emergency Breathing System (CA-EBS) Equipment or life jackets/ transit suits with integrated CA-EBS.
- (4) O2
- (5) Method of charging compressed air cylinders
- (6) Fire blanket
- (7) First Aid Equipment
- (8) Fuels and props (Class A and B fires)
- (9) Helicopter rescue device (of a type used regionally offshore)
- (10) Helicopter Underwater Escape Trainer(s) c/w removable exits
- (11) Hose reel
- (12) Health and safety figures on accident statistics
- (13) Installation emergency organisation chart (examples)
- (14) Location aids suitable for training purposes (e.g. dummy radio beacons and pyrotechnics)
- (15) Mannequins and cleaning equipment
- (16) Marine liferaft and ancillary equipment
- (17) Permit to Work (examples)
- (18) Personal Protective Equipment (PPE)
- (19) Portable Extinguishers – water/foam, CO2 and dry chemical
- (20) Rescue equipment
- (21) Aviation liferaft and ancillary equipment
- (22) Smoke hoods (plus a different type of smoke hood for demonstration purposes)
- (23) Products on task-based risk assessment, lifting and mechanical handling, PRfS, and Permit to Work
- (24) STOP/START/TOFS information
- (25) Marine survival suit (also known as immersion suit or abandonment suit). This suit is insulated.
- (26) An aviation transit suit: to include actual transit suits used in region/area for helicopter transfers
- (27) Pool training suits
- (28) TEMPSC and ancillary equipment
- (29) One actual Tertiary Escape System and video/slide presentation of others
- (30) Torches
- (31) Video – Pyrotechnics
- (32) Video - Hypothermia
- (33) Winch for use during simulated helicopter rescue
- (34) Sufficient diving equipment for HUET safety divers
- (35) PLB Video – where applicable

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Target Group:

This programme is designed to meet the further offshore safety and emergency response training requirements for personnel working in the offshore oil and gas industry who will be supplied with a compressed air emergency breathing system (CA-EBS) during offshore helicopter travel

Learner pre-requisites for the FOET (with CA-EBS):

The FOET (with CA-EBS) is open to persons who have a valid (in-date) OPITO-approved BOSIET (with CA-EBS), BOSIET(with EBS), TBOSIET, FOET (with CA-EBS), FOET(with EBS) or TFOET certificate

Total Training Duration: 8hrs

Specific characteristics of training

a) Registration process

• **Place / time of the training** - The training takes place at the CEDROS facilities in Palmela (Rua Vale de Craveiros CCI 8807 2950-731 Quinta do Anjo). Training will take place between 9:00 am and 6:00 pm, any changes will be communicated. The learner should consult his email, where he will receive confirmation of his registration and details of the training.

• **Prerequisites** - The learner must consider the fulfillment of the prerequisites according to the training program of the course, when applicable.

• **Medical requirements** - Trainings can be physically demanding, all participants who participate in this training must be able to participate fully. It is the trainee's responsibility to notify CEDROS if they have any medical condition or disability that we need to be aware of, for the safety of the learner and CEDROS.

In the registration phase, trainees must ensure that they send the medical certificate or declaration, before participating in the training:

- ✓ Valid and updated offshore medical certificate; or
- ✓ Medical certificate approved by the employer equivalent to the offshore medical certificate; or
- ✓ Medical screening - by filling in a form provided by CEDROS and approved by Opito.

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On the day of the training, learners have to fill in the medical declaration, before the start of the training, to self-assess their physical and mental health status and indicating they have read and understood a written statement regarding the physical and potentially stressful nature of the programme, and the need for learners to be in good health.

- **Photographic Record Identification Document** – The learner must make sure that on the training day he / she brings with him a valid identification document (e.g.: citizen card, passport, etc.) to show the trainer at the beginning of the training and to do the recognition of the learner.
- **Equipment** - Most of the equipment used in the training is provided by CEDROS, however the learner must bring some Personal Protective Equipment, including safety boots, gloves and appropriate clothing. Other equipment can be considered in the confirmation email of the training action. If the trainee does not have any equipment, he must communicate to CEDROS, in order to solve the situation.
- **Hygiene** - The trainee has changing rooms at his disposal, where he can change his clothes and have a bath. We recommend that you bring a change of clothes, slippers, towel and hygiene products.
- **Overnight / Meals** - CEDROS has a partnership with local accommodation close to the training center (<http://www.casadaspipas.pt>), where the learner can stay (meals not included).

On the training day, CEDROS offers coffee breaks to the learners. Lunch is the trainee's responsibility, there are several local restaurants, on the day of the training more information will be given to the trainee's about the nearby restaurants.

b) Equal training opportunities

CEDROS is committed to provide all learners with equal opportunity with regard to access to training, regardless of gender, nationality, ethnicity, religious belief, political affiliation, marital status, age or disability. The following clarifies some conditions for access to training, considering particular situations.

- **Disability** - When a learner has some type of disability / physical limitation, he / she must inform CEDROS upon registration, so that we can provide the necessary support and follow-up during the training. However, there are courses in which some physical strength is required to carry out the practical component of the

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course, in which case the criteria must be analyzed and the effective possibility of compliance with the CEDROS technical team must be verified for health and safety reasons.

- **Literacy** - Learners who have difficulties in terms of language / literacy, must communicate to CEDROS at the time of registration, so that it verifies the possibility of guaranteeing, during the training, the support through the presence of a designated person which will assist in terms of reading and / or writing, during the training and in carrying out the evaluation process.
- **Language / Language** - If the learner's mother tongue is not the same as the one in which the training is given, they must have a minimum level of understanding and conversation to integrate the training. We recommend that the trainee has a B1 level, according to the Common European Framework of Reference for Languages (Levels: A1 / A2 Basic User | B1 / B2 Independent User | C1 / C2 Advanced User).

Evaluation review process:

The learner's evaluation process can be revised whenever justified, it can occur at the trainee's request or if any non-conformity is detected.

The review of the learner's evaluation process is carried out as follows: the evaluation test is reviewed by another OPITO trainer of the respective course, and there may be the need to repeat the practical component, through the reassessment of the exercises with another trainer.

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