Atlantic Canada Offshore Petroleum Training and Qualifications Committee

CODE OF PRACTICE

Atlantic Canada Offshore Petroleum Industry: Code of Practice for the Training and Qualifications of Offshore Personnel

September 2026

Review by 2027

Disclaimer

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1 Overview

1.1 Purpose and Scope

This Code of Practice (COP TQOP) titled *Atlantic Canada Offshore Petroleum Industry: Code of Practice for the Training and Qualifications of Personnel* is the culmination of a joint effort among the offshore petroleum industry, the offshore workforce, and regulatory authorities to produce a single document containing a concise description of the minimum qualifications and certificated safety training required of individuals working in Atlantic Canada's offshore petroleum industry.

The *Accord Act(s)* (reference to federal version only) provides the authority for the Chief Safety Officer (CSO) to mandate that an Operator or Employer put an OHS COP in place, or adopt one chosen by the CSO, with respect to any workplaces or the transportation of Employees to or from such workplaces.

This is a COP TQOP developed to assist those with responsibilities under the *Accord Acts* to better understand industry best practices and expectations related to the minimum qualifications and certified safety training required of individuals working in Atlantic Canada's offshore petroleum industry on Marine Installations or Structures operating in the Atlantic Canada Offshore Area. This COP TQOP is intended to complement an individual Operator's and Employer's procedures, as well as legislative and regulatory requirements, for the minimum safety training requirements for all offshore Personnel; the technical training required for specific roles; emergency team composition, training, and offshore drills/exercises; and the qualifications for various offshore positions.

This COP TQOP outlines the minimum safety training requirements for all offshore Personnel; the technical training required for specific roles; emergency team composition, training, and offshore drills/exercises; and the qualifications for various offshore positions for producing installations, drilling installations, and marine vessels.

While this COP TQOP is a capture of industry requirements for the safety training and certification of the offshore workforce, it is not intended to be all inclusive and simple adherence to the COP TQOP is not sufficient to ensure an Operator's or Employer's obligations pursuant to relevant applicable legislation[1]. The COP TQOP does not, for example, cover all aspects of training and competency assurance as it relates to internal company procedures, processes, and equipment. Operators and Employers must exercise due diligence to ensure all workers are properly trained to deal with all hazards and to complete all safety critical tasks. The intent of the COP TQOP is to demonstrate

[1] Applicable legislation is outlined in s.3.4 of this Code of Practice

what good training entails and helps meet the key requirements under the *Atlantic Accord.*

Acknowledgements

The members of the Atlantic Canada Offshore Petroleum Training and Qualifications Committee (TQC) are recognized and acknowledged for their continuous efforts in reviewing and ensuring the requirements for training and qualifications of offshore Personnel are appropriate.

2 Acronyms and Abbreviations

AED	Automated external defibrillator
API	American Petroleum Institute
AST	Aircrew Survival Training
BCRSP	Board of Canadian Registered Safety Professionals
BOP	Blow out preventor
BOSIET	OPITO - Basic Offshore Safety Induction & Emergency Training
BST	Basic Survival Training
BST-R	Basic Survival Training – Recurrent
CAPP	Canadian Association of Petroleum Producers
CAR	*Canadian Aviation Regulation*
CECAB	Canadian Environmental Certification Approvals Board
CEU	Continuing Education Credits
C-NLOER	Canada-Newfoundland and Labrador Offshore Energy Regulator
CNSOER	Canada Nova Scotia Offshore Energy Regulator
COP TQOP	Atlantic Canada Offshore Petroleum Code of Practice for the Training and Qualifications of Offshore Personnel
CSA	Canada Standards Code
DNV	Det Norske Veritas
DPO	Dynamic Positioning Operator
EPIRB	Emergency Position Indicating Radio Beacon
ESC	Energy Safety Canada
FOET	OPITO - Further Offshore Emergency Training
FPSO	Floating Production Storage and Offloading
FRB	Fast Rescue Boat
FRC	Fast Rescue Craft
GHS	Globally Harmonized System
GMDSS	Global Maritime Distress and Safety System
H_2S	Hydrogen Sulfide
HLO	Helicopter Landing Officer
HPTSS	Helicopter Passenger Transportation Suit System
HS&E	Health, Safety and Environment
HUEBA	Helicopter Underwater Emergency Breathing Apparatus
HUET	Helicopter Underwater Escape Training

IADC	International Association of Drilling Contractors
IATA	International Air Transport Association
IEC	International Electrotechnical Commission
IOGP	International Association of Oil and Gas Producers
IMDG	International Maritime Dangerous Goods Code
IRATA	Industrial Rope Access Trade Association (IRATA)
IRCA	International Register of Certificated Auditors
IMO	International Maritime Organization
MARSEC	Marine Transportation Security Regulations
JRCC	Joint Rescue Coordination Centre
MED	Marine Emergency Duties
MedEvac	Medical evacuation
MOU	Mobile Offshore Unit
MODU	Mobile Offshore Drilling Unit
NFPA	National Fire Protection Association
OIM	Offshore Installation Manager
OSI	Offshore Survival Introduction
OFT	Offshore Fire Team
OFT-R	Offshore Fire Team – Recurrent
PLB	Personal locator beacon
PLC	Programmable Logic Controller
RCC	Rescue Coordination Center
SAR	Search and Rescue
SART	Search and Rescue Transponder
SCR	Steel catenary riser
SCBA	Self-contained breathing apparatus
SDS	Safety Data Sheet
STCW	Standards of Training, Certification & Watchkeeping
TDG	Transportation of Dangerous Goods
TQC	Atlantic Canada Offshore Petroleum Training and Qualifications Committee
VHF	Very high frequency

3 General Guidance

3.1 Introduction

The Atlantic Canada Offshore Petroleum Training and Qualifications Committee (TQC) was formed as a collaborative, multi-stakeholder committee by the regulatory authorities, offshore petroleum industry Operators and the workforce. Training Providers and other stakeholders are represented on the Training and Competency Development Committee.

The objectives of the TQC are to support and oversee the development of an offshore Atlantic Canada training COP TQOP that outlines the minimum qualifications and certified training required of individuals working in Atlantic Canada's offshore petroleum industry.

This COP TQOP provides the industry requirements for safety training and certification as follows:

- Mandatory safety training for all personnel on all Marine Installation or Structures (Section 3), including training requirements for visitors (Section 3.2);
- Emergency preparedness requirements and emergency team training for personnel on Marine Installation or Structures (Section 4);
- Specific requirements for technical training for personnel on all Marine Installation or Structure (Section 5);
- Offshore well control training for specific positions (Section 6)
- Drilling installation position-specific qualifications and training requirements (Section 7);
- Production installation position-specific qualifications and training requirements (Section 8); and
- Standby and support vessel position-specific qualifications and training requirements (Section 9).

Further, this COP TQOP defines procedures for exemptions and equivalencies and outlines the responsibilities of the TQC to maintain the COP TQOP, including consultation and approval processes for changes in requirements.

This COP TQOP is updated and re-published, at a minimum every 2 years. On occasion, a change is required between publications; in these instances, an addendum will be issued and published on the CAPP website.

Editorial changes that do not require review and ratification are made and published as necessary on an ongoing basis.

3.2 Scope

The requirements contained within this COP TQOP have been made sufficiently broad to allow their application to each type of Marine Installation or Structure and support vessels likely to operate in the Atlantic Canada Offshore Area (refer to Section 3.3 for definition of area).

3.3 Definitions

For the purposes of this COP TQOP, the following definitions apply:

Accord Act(s)	"refers to the *Canada-Newfoundland and Labrador Atlantic Accord Implementation Act* the *Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation and Offshore Renewable Energy Management Act* and the *Canada-Newfoundland and Labrador Atlantic Accord Implementation Newfoundland and Labrador Act and the Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation and Offshore Renewable Energy Management (Nova Scotia) Act*. Note: section numbers differ between the Nova Scotia and Newfoundland and Labrador Accord Act(s). References will be to the federal version(s) and differences will be noted as per the following example: *NL s. 205.001 (1) and NS s. 210.001 (1)."*
Atlantic Canada Offshore Area	refers to the combined offshore area regulated by the Canada-Nova Scotia Offshore Energy Regulator (link: CNSOER) and the Canada-Newfoundland and Labrador Offshore Energy Regulator (link:C-NLOER)
Ballast Control Operator	in respect of an MOU, has the same meaning as in *IMO Resolution A.891(21)*, Recommendations *on Training of Personnel on Mobile Offshore Units*, or in any other resolution that replaces it. Barge Supervisor - in respect of an MOU, has the same meaning as in *IMO Resolution A.891(21), Recommendations on Training of Personnel on Mobile Offshore Units*, or in any other resolution that replaces it.
Dynamically positioned	Marine Installation or Structure that is held in position wholly or partly by means of propulsion units that are interfaced with some form of geographic reference system.
Emergency drill	a pre-arranged event whereby Personnel can establish and practice a routine with respect to their role in an emergency.
Emergency exercise	a pre-arranged event in which Personnel can demonstrate their emergency response capabilities and identify strengths and weaknesses in an Operator's emergency action plan.
Employee	"as defined in the *Accord Act(s) NL s. 205.001 (1) and NS s. 210.001 (1)"*

Employer	"as defined in the *Accord Act(s) NL s. 205.001 (1) and NS s. 210.001 (1) "*
Engine-room Rating	a Rating who forms part of a watch in the engine room, but does not include an engine-room assistant, a Rating who is in training or a Rating whose duties while on watch are of an unskilled nature.
Marine Installation and Structure	"as defined inthe *Accord Act(s) NL s. 205.001 (1) and NS s. 210.001 (1)"*
Motor ship	a ship on which the propulsive power is derived from an internal combustion engine.
Offshore Installation Manager (OIM)	means a person put in command of an installation by an operator pursuant to the *Accord Acts.*
Operator	"as defined in the *Accord Act(s) NL s. 205.001 (1) and NS s. 210.001 (1)"*
Personnel	Personnel refers to persons, individuals, Providers of service, Suppliers, Employers and Employees.
Person-in-charge of the deck watch	a person who has immediate charge of the navigation, maneuvering, operation, or security of a Marine Installation or Structure.
Qualified instructor	in respect of a specified course, a person who, because of their knowledge, training, and experience, is qualified to provide instruction that is consistent with the objectives of the course.
Qualified person	in respect of a specified duty, a person who, because of their knowledge, training, and experience, is qualified to perform that duty safely and properly.
Rating	a person who is a member of a ship's crew other than the master or an officer.
Regularly assigned Personnel	personnel whose usual place of employment is onshore but who, in the course of their duties, may be required to work offshore.

Semi-submersible installation	an installation with the main deck connected to an underwater hull or hulls by columns or caissons (e.g., column-stabilized).
Supervisor	"as defined in the *Accord Act(s) NL s. 205.001 (1) and NS s. 210.001 (1)"*
Supplier	"as defined in the *Accord Act(s) NL s. 205.001 (1) and NS s. 210.001 (1)"*
TQC	Training and Qualifications Committee; the Management Committee that was established to maintain this COP TQOP. Refer to the TQC Charter contained within this COP TQOP for further information.
Total installed power	the total electrical power generated on a Marine Installation or Structure for supplying all services necessary for maintaining the Marine Installation or Structure in normal operational and habitable conditions.
Visitor	An individual who is not a regular rotational Employee, has not completed a course in BST, and who will not spend more than seven (7) days offshore during a 12-month period (refer to the OSI training Section 4.2)

3.4 Roles and Responsibilities

This COP TQOP is intended to complement an individual Operator's and Employer's procedures, as well as legislative and regulatory requirements[2] including but not limited to the following:

- *The Canada-Newfoundland and Labrador Offshore Area Occupational Health and Safety Regulations, SOR/2021-247 and the Canada – Nova Scotia Offshore Area Occupational Health and Safety Regulations, SOR/2021-248* **(the "OHS Regulations")**
- *The Canada–Newfoundland and Labrador Offshore Area Petroleum Operations Framework Regulations, SOR/2024-25 and the Canada–Nova Scotia Offshore Area Petroleum Operations Framework Regulations (SOR/2024-26)* **(the "Framework Regulations")**
- *The Canada-Newfoundland and Labrador Atlantic Accord Implementation Act, S.C.1987, c.3 and the Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation and Offshore Renewable Energy Management Act, S.C. 1988, c. 28* **(each an "Accord Act", and together the "Accord Acts").**

3.4.1 Operator

Part III.1 of the Accord Acts sets out the duties of the Operator NL s. 205.011 to 205.015 and NS s. 210.011 to 210.015. One of the main duties is to, "ensure that all Employees and other individuals at the workplace are provided with the instruction, training and supervision — including any that are prescribed — necessary for their health and safety". Operators of offshore projects have the responsibility of ensuring their operations comply with the requirements set out in the Act and Regulations as well as this document and must establish sufficient internal controls that will enable them to assess the adequacy of the training and qualifications of project Personnel and ensure they remain compliant and competent for the duration of the project.

As per section 3(1) of the *Framework Regulations* the Operator is responsible for ensuring that experience, training and competency requirements are met for all roles as required.

3.4.2 Employers

One of the main Employer duties is to provide its employees with the instruction, training and supervision — including any that are prescribed — necessary for their health and

safety." Employers means a person who employs or contracts for the services of any individual in respect of a work or activity for which an authorization has been issued if that person has the power to exercise direction and control over the individual's work at the workplace pursuant to subsections *205.001(1) and 210.001 (1)* of the *Accord Acts.*

3.4.3 Training Provider

A Training Provider is any individual, partnership, corporation, institution, or organization, who provides training courses as outlined in the COP TQOP. A Training Provider is a Provider of Services as *defined in 205.001 (1) and 210.001 (1) of the Accord Acts.*

To protect the health and safety of individuals at the training site and during training the Training Provider must take all reasonable measures to ensure that anything it supplies for use at the site is in a safe condition and training best practices are deployed and used including those outlined in the COP TQOP.

3.4.4 Training and Qualifications Committee

The TQC will review this document on a regular basis and have a defined Charter published within this COP TQOP. The TQC will operate with the purpose of:

- Reviewing the COP TQOP on an ongoing basis to ensure appropriate definition of safety training and certification as required by Operators for offshore workforce Personnel;
- Consulting with relevant stakeholders, such as the offshore workforce and educational and Training Providers, as training requirements are defined or reviewed; and
- Recommending revisions to the document as deemed appropriate and seeking approval of the revisions in accordance with an agreed upon amendment process (refer to the TQC Charter within this COP TQOP).

3.5 Offshore Workforce Engagement Protocol

The TQC includes two offshore workforce representatives as voting members of the committee. The TQC also engages the offshore workforce by sending proposed changes and updates, via the Marine Installation or Structure owners' workplace committees, for review and comment. The TQC will endeavour to send a summary of proposed changes to the workplace committees at least 45 days prior to ratification. Comments will be accepted for review and acknowledged as part of the approval process.

Periodic updates, via plain language "presentations type" communications, will be issued via the Operators and owners to the various workplace committees on all Marine Installations or Structures active in the Atlantic Canada Offshore Area.

3.6 Accreditation

Neither the TQC nor CAPP accredits or approves courses or Training Providers; nor do the TQC or CAPP formally audit courses. The TQC monitors, to the best of its ability, the quality of course delivery through the resources and participation of committee members and has instigated a quality review process for various safety courses required by this COP TQOP that do not have independent or third-party reviews (Refer to Section 3.7).

3.7 Course Quality Reviews

The TQC evaluated the safety training courses required by the COP TQOP and identified several that are not accredited or audited by third-party independent means. The TQC then commissioned a process whereby Training Providers in Atlantic Canada offering any of these specific courses are reviewed for quality. The 'quality review' is conducted following specific and defined processes and the courses are reviewed against defined criteria.

The outcome of each quality review is an assessment of whether the course as offered meets the intent of the COP TQOP and includes any identified recommendations for improvements in quality. The quality review process is ongoing, managed by the TQC and has included, to date, the following courses for review:

- Aircrew Survival Training (AST);
- Offshore Survival Introduction (OSI);
- Basic Survival Training (BST);
- Basic Survival Training – Recurrent (BST-R);
- Fire Team Lead (FTL);
- Helicopter Landing Officer (HLO);
- Offshore Fire Team (OFT);
- Offshore Fire Team – Recurrent (OFT-R);
- Survival Craft Coxswain; and
- Hazardous Area Equipment Training.

Note: Before Training Providers can offer BST-R competencies in the environmental pool, a Course Quality Review would be conducted to ensure that the risk assessment based on Training Provider's facility and equipment regarding the use of environmental conditions in the specific exercises that were identified in the competency statements as sea day exercises and/or skills is complete prior to the phase in of this training.

Note: If the frequency of BST, BST-R or OSI training offered by the training provider becomes infrequent (one year) then a Course Quality Review is required to ensure that the quality of the course meets the intent of the COP TQOP.

3.8 In-House or Third Party Training

The offshore Energy Regulator will, as per the TQC's Charter, accept any properly documented in-house or third-party training course that meets the objectives and requirements set out in this COP TQOP.

3.9 Use of Simulation Technology

The TQC acknowledges the value of the use of simulation in training and provides the following references as guidance for evaluating simulation applications in the offshore petroleum industry in Atlantic Canada.

- Standards of Training, Certification & Watchkeeping (STCW) A-I/6 Training and Assessment
- Standards of Training, Certification & Watchkeeping (STCW) A-I/12 Performance Standards
- International Marine Contractors Association (IMCA) "Guidance on the Use of Simulators (IMCA C 014 Rev. 1)
- DNV Standard for Certification No. 2.14 Maritime Simulator Systems
- IADC WellSharp and WellSharp plus for drilling operations

3.10 Medical Assessment for Fitness to Work Offshore

CAPP publishes an *Atlantic Canada Medical Assessment for Fitness to Work Offshore Guide*. The Guide provides guidance on the medical assessment requirements for all individuals prior to and throughout their work offshore and notes the medicals accepted from other jurisdictions including the United Kingdom and Norwegian medicals.

Note: For some training courses listed within this COP TQOP there is a medical assessment pre-requisite. It is advised that individuals contact their Employer or Operator to determine the most appropriate approach for medical assessment in their circumstance.

3.11 Contact Information

Comments or queries relating to the information presented in this COP TQOP should be directed to the *TQC Secretariat, C/O* the Canadian Association of Petroleum Producers, Suite 1004, Scotia Centre, 235 Water Street, St. John's, NL A1C 1B6 or by email to atlantic.communication@capp.ca.

4 Mandatory Safety Training for Personnel on all Marine Installations or Structures

This chapter outlines the requirements for safety and emergency preparedness training for all individuals who work on any Marine Installations or Structures (e.g., drilling, production, diving, construction, geophysical/geotechnical facilities) operating in the Atlantic Canada Offshore Area.

The following training is listed in this chapter:

4 Mandatory Safety Training for Personnel on all Marine Installations or Structures
4.1 Offshore Survival Training
4.1.1 Basic Survival Training (BST)
4.1.2 Basic Survival Training – Recurrent (BST-R)
4.2 Offshore Survival Introduction (OSI) (Visitors)
4.3 Aircrew Survival Training – (AST)
4.4 Hydrogen Sulphide (H2S) Training
4.5 Transit by Helicopter Safety Briefing
4.6 Transit by Vessel Safety Briefing
4.7 Marine Installation or Structure Workplace Safety Induction
4.8 Regulatory Awareness
4.9 Role-Specific Orientation
4.10 Security Training
4.10.1 Security Training for Marine Installation or Structure Security Officer
4.10.2 Security Training for Marine Installation or Structure Personnel with Security Responsibility
4.10.3 Security Awareness Training for Marine Installation or Structure Personnel without Security Responsibilities
4.10.4 Offshore Security Orientation
4.11 Globally Harmonized System for Hazard Classification and Labelling of Chemicals

4.1 Offshore Survival Training

Subparagraph 15(a)(i) of the *OHS Regulations* requires that Employers provide to each of its Employees, an offshore survival training program appropriate to the workplace location and to the means of transportation to be used to transport the Employee to and from the workplace.

Applies To

The entire complement of a Marine Installation or Structure including all permanently or regularly assigned members of the crew, third-party contractors, and shore-based Personnel whose duties are such that they have to occasionally travel offshore applicable to the mode of transportation.

Note: For Personnel working offshore on a vessel and travelling by vessel only, other survival courses such as MED A1 are considered acceptable.

Note: For an individual working onboard a Marine Installation or Structure with production and/or drilling MED A1 is not recognized and offshore survival training is required.

4.1.1 Basic Survival Training (BST)

Course Objectives

To provide Personnel with a basic understanding of the hazards associated with working in an offshore environment, the knowledge, and skills necessary to react effectively to offshore emergencies, and the ability to care for themselves and others in a survival situation.

Course Duration

Five (5) days

Prerequisites

A Current Medical Certificate as per the Atlantic Canada Medical Assessment for Fitness to Work Offshore Guide.

Note: Personnel entering the jurisdiction with a current OPITO approved "Basic Offshore Safety Induction & Emergency Training" (BOSIET) certificate or a Norwegian Oil and Gas Association approved "Basic Safety and Emergency Training" certificate, will be required to have a valid medical including the five additional compressed air medical screening questions administered by a recognized physician as per the Atlantic Canada Medical Assessment for Fitness to Work Offshore *Guide prior to completing the BST-R.*

Renewal

Three (3) years

Course Content

Refer to the following sections:
13.6 Table 1 BST competencies
13.7 Equipment Requirements

Recognized Certificates

- Basic Survival Training (BST) HUEBA\HUET Certificate issued by the Marine Institute, St. John's, Newfoundland and Labrador.
- Basic Survival Training (BST) HUEBA\HUET issued by Survival Systems Training Ltd., Dartmouth, Nova Scotia.
- Basic Survival Training (BST) HUEBA\HUET issued by RelyonNutec, Dartmouth, Nova Scotia.
- Basic Survival Training (BST) HUEBA\HUET issued by RelyonNutec Canada, Newfoundland and Labrador.
- OPITO approved BOSIET (plus offshore Medical)
- Norwegian Oil and Gas Association approved "Basic Safety and Emergency Training" certificate (plus offshore medical)

Note: The OPITO approved "Basic Offshore Safety Induction & Emergency Training" (BOSIET) certificate and the Norwegian Oil and Gas Association approved "Basic Safety and Emergency Training" are not considered equivalent to the Canadian Basic Survival Training course in regards to underwater water helicopter escape. However, the Energy Regulator will accept these certificates if supplemented by the 2-day BST-R training course which includes the use of the emergency breathing system in the HUET simulator. In order to complete BST-R, individuals with these certificates will require a valid medical including the five additional compressed air medical screening questions administered by a recognized physician as per the Atlantic Canada Medical Assessment for Fitness to Work Offshore Guide prior to completing the BST-R. This option is only available to individuals that have a valid BOSIET or a valid Norwegian Oil and Gas Association approved "Basic Safety and Emergency Training" training certificate.

Note: For trainees who are not medically cleared to use the HUEBA device in the HUET and have a valid medical, the trainee must be "red tagged" by the Training Provider and permitted to complete the training without use of the HUEBA in the HUET. Upon successful completion of the training, the trainee will be issued the relevant certificate.

Note: The Maximum class size for the BST, BST-R and OSI is 16 participants.

Combining any of the BST, BST-R or OSI practical exercises is permitted as long as the Training Provider does not exceed the maximum number of 16 participants.

4.1.2 Basic Survival Training – Recurrent (BST-R)

Course Objectives

To provide for continued proficiency in the use of safety, survival and rescue equipment and techniques, and to update individuals with respect to advancements in equipment technology and procedures since their previous training.

Applies To

Personnel who are required to hold a valid Certificate in Basic Survival Training (BST), and who wish to maintain the validity of their Certificate.

Note: Individuals who do not complete BST-R prior to the expiration of their BST Certificate are required to repeat the five (5) day course. However, because of the intermittent nature of employment and course scheduling, a reasonable extension may be permitted upon review and approval by the Training Provider. In order for the Training Provider to consider a request for extension, the following criteria must be provided, at a minimum:

1. *Written request to be submitted to the Training Provider before the expiry of the certificate.*
2. *Reasonable rationale for the request, including evidence of attempts made to complete training required before certificate expiry (or explanation provided for why this was not possible).*
3. *Before the expiry of the certificate, the individual must be registered in an upcoming refresher course.*

Course Duration

Two (2) days.

Prerequisites

- A Current Medical Certificate as per the Atlantic Canada Medical Assessment for Fitness to Work Offshore Guide
- A valid Basic Survival Training (BST) Certificate
- A valid OPITO approved “Basic Offshore Safety Induction and Emergency Training” (BOSIET) or “Further Offshore Emergency Training” (FOET) certificate (plus offshore medical); or
- A valid Norwegian Oil and Gas Association approved “Basic Safety and Emergency Preparedness course” certificate or a “Basic Safety and Emergency Preparedness Refresher Course” certificate (plus offshore medical).

Note: Personnel entering the jurisdiction with a current OPITO approved “Basic Offshore Safety Induction & Emergency Training” (BOSIET) certificate or a Norwegian Oil and Gas Association approved “Basic Safety and Emergency Training” certificate, will be required to have a valid medical including the five additional compressed air medical screening

questions administered by a recognized physician as per the CAPP Atlantic Canada Medical Assessment for Fitness to Work Offshore Guide prior to completing the BST-R. This BST-R certificate will be valid for three (3) years from the date of issue.

Renewal

Three (3) years.

Course Content

Refer to Section 13.6 Table 1: BST-R competencies.

Recognized Certificates

- Basic Survival Training (Recurrent) (BST-R) HUEBA\HUET Certificate issued by the Marine Institute, St. John's, Newfoundland and Labrador.
- Basic Survival Training (Recurrent) (BST-R) HUEBA\HUET issued by Survival Systems Training Ltd., Dartmouth, Nova Scotia.
- Basic Survival Training (Recurrent) (BST-R) HUEBA\HUET issued by RelyonNutec, Dartmouth, Nova Scotia.
- Basic Survival Training (Recurrent) (BST-R) HUEBA\HUET issued by RelyonNutec, Newfoundland and Labrador.

Note: The OPITO approved "Basic Offshore Safety Induction & Emergency Training" (BOSIET) certificate and the Norwegian Oil and Gas Association approved "Basic Safety and Emergency Training" are not considered equivalent to the Canadian Basic Survival Training course in regards to underwater water helicopter escape. However, the Energy Regulator will accept these certificates if supplemented by the 2-day BST-R training course which includes the use of the emergency breathing system in the HUET simulator. In order to complete BST-R, individuals with these certificates will require a valid medical including the five additional compressed air medical screening questions administered by a recognized physician as per the Atlantic Canada Medical Assessment for Fitness to Work Offshore Guide prior to completing the BST-R. This option is only available to individuals that have a valid BOSIET or a valid Norwegian Oil and Gas Association approved "Basic Safety and Emergency Training" training certificate.

Note: For trainees who are not medically cleared to use the HUEBA in HUET and have a valid medical, the trainee must be "red tagged" by the Training Provider and permitted to complete the training without use of the HUEBA in the HUET. Upon successful completion of the training, the trainee will be issued the relevant certificate.

Note: Maximum number of class size for the BST, BST-R and OSI is 16 participants. Combining any of the BST, BST-R or OSI practical exercises is permitted as long as the Training Provider does not exceed the maximum number of 16 participants.

4.2 Offshore Survival Introduction (OSI) (Visitors)

Course Objectives

To provide Visitors with an awareness of the hazards associated with the marine environment, an understanding of their responsibilities during an offshore emergency and the ability to care for themselves in a survival situation. Visitors completing this course must also receive the "Helicopter/Vessel Safety Briefing" and the "Marine Installation or Structure Safety Induction" referred to in sections 4.5 and 4.7 in order to fly/travel offshore. Additional training requirements outlined in section 4 do not apply to Visitors who must be closely supervised for the duration of their stay offshore.

Applies To

All Visitors to an offshore Marine Installation or Structure who have not completed a course in *Basic Survival Training (BST)*, and who will not spend more than seven (7) days offshore during a 12-month period.

Note: OSI meets the requirements for subparagraph 15 (a)(i) of the OHS Regulations but is reserved for those Personnel who make special visits and are not performing work activity. OSI cannot be used as a substitute for survival training.

Course Duration

One (1) day

Prerequisites

A Current Medical Certificate administered by a Recognized Physician as per the Atlantic Canada Medical Assessment for Fitness to Work Offshore Guide.

Renewal

One (1) year.

Course Content

Refer to Section 13.6 Table 1 Competence for OSI.

Recognized Certificates

- Offshore Survival Introduction with HUET-HUEBA certificate issued by the Marine Institute, St. John's, Newfoundland and Labrador.
- Offshore Survival Introduction certificate with HUET-HUEBA issued by Survival Systems Training Ltd., Dartmouth, Nova Scotia.
- Offshore Survival Introduction with HUET-HUEBA certificate issued by RelyonNutec, Dartmouth, Nova Scotia.
- Offshore Survival Introduction with HUET-HUEBA certificate issued by RelyonNutec, Newfoundland and Labrador.

Note: For trainees who are not medically cleared to use the HUEBA in HUET and have a valid medical, the trainee must be "red tagged" by the Training Provider and permitted to complete the training without use of the HUEBA in the HUET. Upon successful completion of the training, the trainee will be issued the relevant certificate.

Note: Maximum number of class size for the BST, BST-R and OSI is 16 participants.

Combining any of the BST, BST-R or OSI practical exercises is permitted as long as the Training Provider does not exceed the maximum number of 16 participants.

4.3 Aircrew Survival Training – (AST)

Course Objectives

To provide proficiency in the use of safety, survival and rescue equipment and techniques, and to update individuals with respect to advancements in equipment technology and procedures since their previous training. The AST course consists of one day of aircrew ditching training and one day of offshore hazards and sea survival training. The offshore hazards and sea survival day follows the same criteria as the BST-R whereas the ditching day theory and practical exercises have been developed explicitly for both Line and SAR pilots; rescue specialists, and aircraft maintenance engineers who are required to fly as part of their job duties.

Applies To

Line and SAR pilots; rescue specialists, and aircraft maintenance engineers.

Course Duration

Two (2) days.

Prerequisites

A Current Medical Certificate as per the Atlantic Canada Medical Assessment for Fitness to Work Offshore Guide.

Renewal

Three (3) years.

Course Content

Refer to Section 14.2 Competence for AST

Note: "Individuals with an AST must remain within the accommodations unless escorted."

4.4 Hydrogen Sulphide (H_2S) Training

Subparapraph 15(a)(iii) of the OHS Regulations requires that Employers provide to each of its Employees, training on hydrogen sulfide safety, if hydrogen sulfide may be present at the workplace.

Course Objectives

To provide Personnel with an awareness of the dangers associated with H_2S gas and the appropriate response measures to be taken should it be encountered.

Applies To

All Personnel traveling to a Marine Installation or Structure or if hydrogen sulfide is present at the workplace or if there is potential for it to exist.

For drilling and production installations, H_2S Alive certificate is required. For any other Marine Installation or Structure where H_2S is present, alternative training that meets the course content below may be acceptable.

Course Duration

One (1) day for H_2S Alive

Prerequisites

None

Renewal

Three (3) years

Course Content

- Characteristics of H_2S;
- Symptoms of H_2S poisoning;
- Exposure limits and toxicity levels;
- Methods of detecting and monitoring H_2S;
- Operation and maintenance of breathing apparatus;
- Response strategy;
- Rescue techniques; and
- Resuscitation.

Recognized Certificates

H_2S Alive Certificate issued by ESC or a certified instructor in possession of a valid ESC Instructor's Training Agreement.

4.5 Transit by Helicopter Safety Briefing

Subsection 50 (1) of the OHS Regulations requires that all Personnel travelling offshore by helicopter receive specific safety information and instruction related to helicopter transport.

A helicopter safety briefing/video should be designed to provide individuals travelling to and from offshore with an awareness of the dangers and risks associated with helicopter transportation, and the procedures to be followed in the event of an emergency during transport.

All persons shall receive a helicopter safety briefing/video prior to being given transport to or from a Marine Installation or Structure. The briefing must be repeated for each trip and should include, at a minimum, the following information:

- Helicopter awareness.
- Demonstration and donning and doffing of the helicopter transportation suit;
- Cautionary measures when embarking, disembarking and while en route;
- The role of passengers during emergencies;
- The location and use of emergency exits and equipment (including compressed air HUEBA); and
  escape/abandonment procedures.

4.6 Transit by Vessel Safety Briefing

Subsection 51 (1) of the OHS Regulations requires that all Personnel travelling offshore by vessel receive specific safety information and instruction related to transit by vessel.

The vessel safety briefing/video should be designed to provide individuals travelling to and from offshore with an awareness of the dangers and risks associated with vessel transportation, and the procedures to be followed in the event of an emergency during transport. All persons shall receive a vessel safety briefing/video prior to being given transport to or from a Marine Installation or Structure. The briefing must be repeated for each trip and should include, at a minimum, the following information:

- An overview of the vessel's layout and features, including the location of muster stations and emergency exits and equipment, including lifeboats and life rafts;
- The meaning of alarms;
- Instruction on precautionary measures to be taken when embarking and disembarking and while enroute;
- The role of passengers during emergencies;
- Demonstration of the donning and doffing of the immersion suits provided in accordance; and
- Instruction on escape and abandonment procedures, including the use of the lifeboats and life rafts.

4.7 Marine Installation or Structure Workplace Safety Induction

Subparagraph 15(b)(i) of the OHS Regulations requires that all Employees receive specific safety instruction and training (a workplace safety induction) upon their immediate arrival at the workplace and when they have not been present in the previous six months.

The workplace Marine Installation or Structure Safety Briefing Induction shall be designed to familiarize every person at the installation, including visitors, to the hazards associated with an offshore environment, the location and use of safety equipment, and the procedures to be followed in the event of an emergency.

A Marine Installation or Structure Safety Induction should be conducted immediately upon arrival at the Marine Installation or Structure for:

- All persons arriving at the Marine Installation or Structure for the first time, and
- All persons returning to the Marine Installation or Structure after an absence of six months or more.

The workplace Marine Installation or Structure Safety Briefing Induction shall include, at a minimum, the following

information:

- Orientation to the hazards general organizational and command structure for the Marine Installation or Structure; and emergency procedures; at the workplace.

In addition to the above, the following requirements should also include:

- Hazards and potential emergencies;
- The responsibility of individuals for their own safety and the safety of others;
- The need, and to whom, to report incidents;
- The location, if any, of designated smoking areas;
- The location and significance of hazardous areas;
- Overview of the permit to work system;
- The Marine Installation or Structure's emergency alarms, signals and actions;
- The location of muster stations, lifeboats, emergency exits and escape routes;
- Type, location and operation of the safety and lifesaving equipment available on the Marine Installation or Structure;
- The type and scheduling of onboard emergency drills and the need to participate in them; and
- The demonstration of marine abandonment suits.

4.8 Regulatory Awareness

Subparagraph 15 (a) (ii) of the OHS Regulations requires that all Employees working offshore receive training on the legislation applicable to occupational health and safety, including the rights of Employees and the duties of Operators Employers, Supervisors and Employees. While the regulatory requirement is in relation to occupational health and safety legislation, the regulatory awareness training should also provide an overview of matters in relation to operational safety and environmental protection.

Course Objectives

To provide Personnel with a basic understanding of occupational health and safety related legislation and regulations, the regulatory system as it applies to offshore petroleum operations, their rights, and obligations pursuant to the legislation and the duties and obligations of Operators, Employers, Supervisors, and Employees.

Applies To

To all Personnel working offshore. Training must take place before the Employee is first transported to a workplace and then as necessary to ensure the training remains valid for the duration of the Employee's employment at the workplace.

Course Duration

There is no minimum duration set for this training, but Operators must be able to demonstrate that Personnel have a reasonable understanding of the material presented.

Prerequisites

None

Renewal

As necessary to ensure the training remains valid for the duration of the Employee's employment at the workplace. Training is to be updated as necessary when there are major changes in the legislation.

Course Content

- An overview of the applicable occupational health and safety-related legislation; including the duties of Operators, Employers, Supervisors and Employees;
- An overview of applicable safety-related legislation;
- An overview of each of the applicable safety related regulations;
- An overview of applicable guidance issued by relevant regulatory authorities;
- An overview of the regulatory structure and the roles of the various regulatory bodies;
- An overview of regulatory processes including such processes as work authorizations, certificate of fitness, compliance audits and enforcement;
- An explanation of the powers and authority of offshore Energy Regulator officers;

- An explanation of the internal responsibility system;
- An overview of Operator, Employer, Supervisors, Employees, Workplace Committees/Representatives, Providers of Service, Suppliers, Owners, Interest Holders and Corporate Officials duties and obligations pursuant to the legislation;
- A detailed explanation of Personnel rights and obligations pursuant to the legislation with emphasis on the rights to know, participate and refuse and on Personnel obligations to work safely and report hazards and incidents; and
- An explanation of the “regulatory query” process.

4.9 Role-Specific Orientation

A role-specific orientation is an effective tool that ensures new Personnel possess the requisite knowledge and skills to carry out their work safely, efficiently, and correctly. To be effective, orientations should provide the Employee with comprehensive information on the inherent risks specific to their work and work areas, and on the procedures and equipment necessary to properly discharge their normal employment and emergency response duties.

All new Personnel should receive a formal role-specific orientation from a Supervisor during their first tour of duty offshore on the assigned Marine Installation or Structure. The orientation should include, at a minimum, the following information:

- The Marine Installation or Structure policies relating to health, safety and environmental protection;
- The procedures, general work rules and inherent hazards associated with the assigned role;
- The procedures to be followed in the event of an incident or emergency involving their assigned work area(s);
- The location, use and care of the personal protective equipment that may be required while performing normal and emergency response duties; and
- The location and use of any emergency equipment available in or near the assigned work area(s) that may be required in the event of an incident or emergency situation.

4.10 Security Training

Marine Installation or Structure security in the offshore area of operations is a key element in the protection of Personnel, the environment, and equipment. It is essential that all Operators in the Atlantic Canada Offshore Area conduct comprehensive security vulnerability assessments, maintain effective Security Plans, and identify Personnel that have security responsibilities.

Operators should ensure that Personnel are provided with the required security training described below.

Operators should further ensure that drills and exercises are conducted at planned intervals to practice Security Contingency and Emergency Response Plans.

Note: Operators must also be aware that there may be additional security training, drills and exercise requirements associated with, as applicable, the International Ship & Port Facility Security (ISPS) Code, the Code on the Standards of Training, Certification and Watchkeeping for Seafarers (STCW Code including the Manila Amendments to STCW Convention and Code, dated 25 June 2010), as well as any additional requirements of the Installation's Flag State. Installations are also to take note of the requirements for security training in IMO Resolution A.1079 (28) adopted on 4 Dec 2013.

4.10.1 Security Training for Marine Installation or Structure Security Officer

Course Objectives

To provide Personnel with the knowledge and skills necessary to fulfill their responsibilities within the Marine Installation or Structure Security Plan.

Applies To

Persons who have responsibilities respecting the security of an offshore Marine Installation or Structure.

Recognized Certificates, Course and Duration

Courses resulting in a Certificate of Proficiency for "Seafarers with Designated Security Responsibilities" issued in accordance with IMO STCW Code Regulation VI/6 and Table A-VI/6-2. This includes courses resulting in a Certificate of Proficiency for "Vessel Personnel with Security Responsibilities" recognised by Transport Canada in accordance with the Marine Transportation Security Regulations, (normally minimum one and a half days duration). A Certificate of Proficiency is not issued for Personnel on fixed installations; therefore, a valid certificate from a recognised Training provider, or equivalent is required.

Prerequisites

None

Renewal

No expiry: refresher training recommended for Personnel who have not been actively involved in security drills and exercises for a period of 5 years.

Course Content

- Current security threats and patterns;
- The detection and recognition of weapons, explosives, incendiaries and other dangerous substances and devices;
- The recognition of the characteristics and behavioural patterns of persons who are likely to threaten security;
- Knowledge of security measures for: Access to the Marine installation or Structure, restricted areas, handling of cargo, delivery of stores, monitoring of the Marine Installation or Structure, and Handling unaccompanied baggage;
- Techniques that might be used to violate security procedures or to circumvent security procedures, equipment or systems;
- Crowd management and control techniques;
- Security-related communications;
- Emergency preparedness and response and contingency planning;
- The operation, testing, calibration and maintenance of security equipment and systems;

- Inspection, control and monitoring techniques of the offshore Marine Installation or Structure;
- Methods of performing physical searches of persons and goods including personal effects, baggage, ships' stores and industrial supplies;
- The relevant provisions of the offshore Marine Installation or Structure security plan; and
- The meaning and requirements of the different MARSEC levels.

4.10.2 Security Training for Marine Installation or Structure Personnel with Security Responsibility

Course Objectives

To provide Personnel with the knowledge and skills necessary to fulfill their responsibilities within the Marine Installation or Structure security plan.

Applies To

Persons who have responsibilities respecting the security of an offshore installation.

Recognized Certificates, Course and Duration

Courses resulting in a Certificate of Proficiency for "Seafarers with Designated Security Responsibilities" issued in accordance with IMO STCW Code Regulation VI/6 and Table A-VI/6-2. This includes courses resulting in a (Certificate of Proficiency) for "Vessel Personnel with Security Responsibilities" recognised by Transport Canada in accordance with the Marine Transportation Security Regulations, (normally minimum one and a half days duration). A Certificate of Proficiency is not issued for Personnel on fixed installations; therefore, a valid certificate from a recognised Training Provider, or equivalent, is required.

Prerequisites

None

Renewal

No expiry: refresher training recommended for Personnel who have not been actively involved in security drills and exercises for a period of 5 years.

Course Content

- Current security threats and patterns.
- The detection and recognition of weapons, explosives, incendiaries and other dangerous substances and devices.
- The recognition of the characteristics and behavioural patterns of persons who are likely to threaten security.
- Knowledge of security measures for: Access to the Marine Installation or Structure, Restricted areas, handling of cargo, delivery of stores, monitoring of the Marine Installation or Structure and handling unaccompanied baggage.
- Techniques that might be used to violate security procedures or to circumvent security procedures, equipment or systems.
- Crowd management and control techniques.
- Security-related communications.
- Emergency preparedness and response and contingency planning.
- The operation, testing, calibration and maintenance of security equipment and systems.
- Inspection, control and monitoring techniques of the offshore installation.

- Methods of performing physical searches of persons and goods including personal effects, baggage, ships' stores and industrial supplies.
- The relevant provisions of the offshore Marine Installation or Structure security plan; and
- The meaning and requirements of the different MARSEC levels.

4.10.3 Security Awareness Training for Marine Installation or Structure Personnel without Security Responsibilities

Course Objectives

To provide Personnel with a general understanding of security procedures and arrangements in the offshore Marine Installation or Structure.

Applies To

All permanently and regularly assigned Personnel.

Recognized Certificates, Course and Duration

A security awareness briefing shall be completed.

Prerequisites

None

Renewal

No expiry: refresher training recommended for Personnel who have not been actively involved in security drills and exercises for a period of 3 years.

Course Content

- Basic security issues and communications;
- The meaning of the different MARSEC levels, the different procedures required of the person at each level and the emergency procedures and contingency plans;
- Knowledge of security measures for: Access to the Marine Installation or Structure, restricted areas, handling of cargo, delivery of stores, monitoring of the Marine Installation and Structure, and handling unaccompanied baggage
- The detection and recognition of weapons, explosives and incendiaries and other dangerous substances and devices;
- The recognition of the characteristics and behavioural patterns of persons who are likely to threaten security; and
- Techniques that might be used to violate security procedures, or to circumvent security procedures, equipment, or systems.

4.10.4 Offshore Security Orientation

All Personnel traveling to an offshore Marine Installation or Structure, including contractors, should receive security orientation in order to be able to:

- Understand the meaning and requirements of the installation's security; and operating levels (MARSEC, or another scheme deployed by the Operator).
- Report a security incident;
- Know the procedures to follow when there is a security threat; and
- Take part in security-related emergency and contingency procedures.

4.11 Globally Harmonized System for Hazard Classification and Labelling of Chemicals

Section 162 of the OHS Regulations outlines **t**he instruction and training that every Employer must provide to its Employees regarding the use of hazardous substances.

Course Objectives

To provide Personnel with relevant information with respect to the safe handling, use, storage and disposal of hazardous materials in the workplace.

Applies To

All Personnel traveling to and working on a Marine Installation or Structure.

Course Duration

Minimum of four (4) hours, or as required to achieve Course Objectives.

Prerequisites

None

Renewal

No expiry

Course Content

- GHS Regulatory requirements;
- Product classification;
- Supplier, Employer and Employee responsibilities;
- Supplier and workplace labels and variations;
- Safety Data Sheets (SDS);
- Safe storage, handling, use and disposal procedures; and
- Emergency procedures.

Note: As per Section 162 of the OSH Regulations if the Employee installs, operates, maintains, or repairs a piping system that contains a hazardous substance, or any component of such a system, training with respect to the significance of the colour-coding, signage or other markings is required which is in addition to the above training.

5 Emergency Preparedness and Response Training

Emergency preparedness and response is an organization's last line of defense against an accidental or emergency event. There is not enough time during an emergency situation to decide who is in charge, survey outside agencies as sources of help, or exercise and train Personnel to respond appropriately. These must be accomplished prior to the emergency.

This section is intended to provide guidance to offshore Operators in the development of policies, plans and procedures that will prepare Personnel to respond immediately and effectively to minimize the potential consequences of an emergency and, where possible, facilitate the resumption of normal operations.

The following emergency preparedness /and response requirements for all Marine Installation or Structure are included in this chapter:

5.1 Emergency Response Teams
5.1.1 Deputy Person-In-Charge
5.1.2 Fast Rescue Boat (FRB) Teams
5.1.3 Fire Teams
5.1.4 Medical Response Teams
5.1.5 Helideck Teams
5.1.6 MedEvac Teams
5.1.7 Rescue Boat Teams
5.1.8 Survival Craft Teams
5.1.9 Technical Response Teams
5.2 Emergency Response Team Training
5.2.1 Rescue Coordination Center (RCC) Briefing and Protocol
5.2.2 Command & Control and Management of Major Emergencies
5.2.3 Helicopter Landing Officer (HLO)
5.2.4 Offshore Fire Team (OFT)
5.2.5 Offshore Fire Team–Recurrent (OFT-R)
5.2.6 Offshore Fire Team Lead
5.2.7 Person-in-Charge Assessment
5.2.8 Rescue Boats
5.2.9 Survival Craft Coxswain
5.2.10 Survival Craft Coxswain - Recurrent
5.3 Environmental Response - Marine Wildlife Observer
5.4 Emergency Action Plans
5.5 Emergency Drills and Exercises
5.5.1 Emergency Drills
5.5.2 Recordkeeping
5.5.3 Emergency Exercises
5.5.4 Maritime Security Exercises

5.1 Emergency Response Teams

Applicable to all Marine Installations or Structures (unless otherwise noted).

It is essential that offshore facilities are staffed with designated emergency response teams capable of providing specialized on-site expertise and Personnel that will assist in bringing an emergency to an early and successful conclusion. Each team should consist of specially trained and qualified Personnel whose normal employment duties are such that they may be dedicated to respond to an emergency without being removed from other duties critical for the safe operation of the well, Marine Installation or Structure or vessel.

It is equally important that emergency team members and equipment be maintained in a state of operational readiness. This is generally accomplished through a combination of initial and refresher training and participation in onboard emergency drills and exercises.

Operators should consider the following when establishing minimum requirements for emergency response teams:

5.1.1 Deputy Person-In-Charge

Applicable to all Marine Installations or Structures

A Deputy/Alternate Person-In-Charge should be available onboard the drilling or production installation at all times and be prepared to take command in an emergency situation should the Person-in-Charge/OIM be unable to assume the duties of his/her role. This individual must hold a senior position onboard the installation, be trained in Management of Major Emergencies, and must have a current and valid Person-In-Charge Assessment.

The Deputy Person-in-Charge must have Well Control Training Level 2 with recertification every 2 years.

5.1.2 Fast Rescue Boat (FRB) Teams

Applicable to standby vessels

Role

To provide standby vessel-based search, rescue, and revival operations in response to person overboard situations.

Composition

Standby vessels are required to have on board, at all times, at least three designated crew members, excluding the master, in possession of a valid certificate in FRB. In addition, three other crew members must be available to assist survivors in the rescue zone while the vessel's senior first aid person and one other crew member must be assigned solely to the care of survivors.

Note: Standby Vessels in Atlantic Canada's offshore will be flagged in Canada and will require not only STCW Fast Rescue Boat training but a Certificate of Proficiency from Transport Canada.

5.1.3 Fire Teams

Applicable to drilling and production installations

Role

To provide coordinated firefighting support to all areas of the installation. Team members may also be required to perform search, rescue and revival activities.

Composition

Offshore drilling or production installations are required to have on board at all times, at least ten (two teams of five) designated Personnel in possession of a valid Certificate in Offshore Fire Team. Each team must be under the direction of a designated team leader having at least three (3) years of prior shipboard experience, or an equivalent combination of experience and training.

5.1.4 Medical Response Teams

Applicable to Marine Installations or Structures

The number of medics and first aiders required is outlined in *section 32 (1) of the OHS Regulation* as follows:

	Column 1	Column 2	Column 3	Column 4
Item	Number of persons at the workplace	Number of first aiders with standard first aid certificate or higher	Number of additional first aiders with advanced first aid certificate or qualifications equivalent to those of a medic	Number of medics
1	6–10	1 plus 1 for every 2 persons in excess of 6	0	0
2	11–30	3 plus 1 for every 2 persons in excess of 10	1	0
3	31–40	13 plus 1 for every 2 persons in excess of 30	1	0
4	More than 40	17 plus 1 for every 2 persons in excess of 40	2 plus 1 for every 10 persons in excess of 40	1

Role

To provide support to the medic in the application of basic and advanced first aid techniques, and in casualty management and handling.

Composition

For drilling and production installations the size and organization of the team may be determined by the medic but, at no time, may be less than five (5) members, including the medic as the designated team leader. For other Marine Installation or Structure, the size of the team should be appropriate to the number of Personnel onboard.

5.1.5 Helideck Teams

Applicable to Marine Installation or Structure which intend to have helicopter operations

Role

To provide operational support to all helicopter operations on the Marine Installation or Structure, including passenger movement, cargo handling and refueling. Team members may also be required to perform firefighting and rescue duties.

Composition

Helideck teams must be comprised of the HLO, two firefighters, and a nozzleperson/baggage handler. Each team must be under the direction of a certified HLO who, along with at least two other team members, has completed training in OFT. Each team member must also receive instruction from a person knowledgeable of the equipment and procedures specific to the type of aircraft to be used on the Marine Installation or Structure and familiarization with refueling procedures and equipment.

5.1.6 MedEvac Teams

Applicable to Marine Installations or Structures

Role

To provide medical evacuation (MedEvac) services for offshore petroleum industry activities.

Composition

Operators must have MedEvac support Personnel available to support offshore petroleum activities. MedEvac Teams consist of medical Personnel travelling for the purpose of a MedEvac and composition may vary depending upon the medical situation. All members of the MedEvac Team or on-call medical Personnel intending to participate in a MedEvac for an offshore petroleum activity must have the following minimum training:

- Each individual of the MedEvac Team must have valid survival training based on the mode of transportation.

5.1.7 Rescue Boat Teams

Applicable to Marine Installations or Structures equipped with Rescue Boats

Note: The size of the team should be appropriate to the number of Personnel onboard.

Role

To provide search, rescue, and revival operational in response to person overboard situations.

Composition

Offshore drilling, production and accommodation installations equipped with rescue boats are required to have on board, at all times, at least six (two teams of three) designated Personnel in possession of a valid certificate in Rescue Boat Team. Each team must be under the direction of a designated team leader having at least one (1) year of prior shipboard experience, or an equivalent combination of experience and training. For other types of Marine Installations or Structures, the composition should reflect the number of Personnel on board.

5.1.8 Survival Craft Teams

Applicable to Marine Installations or Structures equipped with lifeboats

Role

To take charge of the Marine Installation or Structure's evacuation stations, and the mustering and accounting for persons assigned to those stations. During emergencies, team members also have charge of lowering and launching survival crafts and are in command of the crafts while at sea.

Composition

Marine Installations or Structures are required to have on board, at all times, at least two designated coxswains in possession of a valid Survival Craft Coxswain certificate for each lifeboat whose combined capacities are capable of evacuating the Marine Installation and Structure's total complement.

5.1.9 Technical Response Teams

Applicable to drilling and production installations

Role

To provide technical and operational support during incidents involving a influx or well control situation, a loss of stability or ballast control, or a potential collision with a vessel or ice.

Composition

The appropriate senior technical and/or marine Personnel and the operating Supervisor and Personnel normally assigned to the area where the emergency has occurred. Additional on-site technical support may be obtained from within other departments, the client's representatives, or third-party contractor Personnel.

5.2 Emergency Response Team Training

5.2.1 Rescue Coordination Center (RCC) Briefing and Protocol

Applicable to drilling and production installations

All offshore and onshore management Personnel, who are responsible for making major decisions in an emergency and all Personnel who are responsible for communication with the JRCC in an emergency must obtain a briefing from JRCC staff. These Personnel must also be provided and be familiar with the most recent edition of the RCC publication *"Offshore Marine Installation or Structure Notification Protocol and Search and Rescue Procedures"*.

5.2.2 Command & Control and Management of Major Emergencies

Applicable to drilling and production installations

Course Objectives

To provide designated Personnel with formal training in command and control and the management of major emergencies. Individuals who have completed this course should be able to maintain a state of readiness to deal with major emergencies onboard offshore installations. They should be able to review, manage and assess the information available in an emergency situation in a timely manner, establish priorities and take effective action. They should be able to implement predetermined emergency plans and procedures in the context of the current emergency. They should be able to efficiently communicate information and instructions. Personnel who have successfully completed the course should be able to monitor and control resources, evaluate progress, and communicate changes in plans and priorities. They should be able to effectively delegate authority, manage individuals and teams and deal with stress in themselves and others.

Applies To

Offshore Marine Installation or Structure Managers and those designated to succeed Offshore Marine Installation or Structure Managers (Deputy Person-In-Charge) in emergency situations. Other senior managers on offshore installations should also complete this course where appropriate to the organizational structure in question (e.g., Vessel Leads, Production Leads and Rig Superintendents).

Course Duration

A minimum of four (4) days

Prerequisites

None

Renewal

Individuals who cannot demonstrate having participated in emergency drills and exercises, in a command role, on an offshore installation in the past two years must redo the course.

Course Content

The course must provide both theory (i.e., lectures, written material, presentations, videos, etc.) and practical exercises with the emphasis on practical exercises. Sufficient resources must be available to provide for the observation of students under realistic emergency conditions such that instructors can provide relevant and effective feedback. As indicated by the course title and objectives the course must focus on command and control and the management of major emergencies and not on technical details. The course must as a minimum cover the following topics:

- Maintenance of a state of readiness;
- Situation assessment, prioritization and implementation of effective action;
- Maintenance of communications;
- Delegation of Authority;
- Crisis Management and Crowd Control Management of individuals and teams in emergencies; and
- Dealing with stress in oneself and in others.

5.2.3 Helicopter Landing Officer (HLO)

Course Objectives

To provide designated Personnel with the knowledge and skills necessary to safely and efficiently coordinate offshore helicopter operations.

Applies To

All designated HLOs on a Marine Installation or Structure.

Course Duration

One (1) day

Prerequisites

- A valid BST Certificate, or equivalent;
- A valid OFT Certificate, or equivalent; and
- At least six (6) months prior experience as a helideck team member on an offshore Marine Installation or Structure.

Renewal

Three (3) years

Note: Re-certification may be obtained by either: completing the course and receiving a new certificate valid for three (3) years, or prior to the expiration of the certificate, the

OIM issuing a written document, valid for three (3) years, attesting to the individual's continued proficiency in coordinating offshore helicopter operations. Proficiency must be validated by a record of activity.

Course Content

- HLO responsibilities;
- Helicopter types and design;
- Helicopter operations, including the effects of weather;
- Helideck suitability and equipment;
- Communications network;
- Pre-landing considerations and preparation;
- Landing and departure routines;
- Helicopter start-up and shut-down;
- Special hazards and precautions;
- Carriage and marking of cargo, including dangerous goods; and
- Fueling control and procedures.

5.2.4 Offshore Fire Team (OFT)

Applicable to drilling, production and accommodation installations

Course Objectives

To provide designated Personnel with an understanding of the chemistry and associated hazards of fire, and with practical skills and team training in fire suppression, rescue and personal protection.

Applies To

Members of the installation fire teams and any other person who has a designated responsibility for firefighting as part of their emergency duties assignment.

Course Duration

See section 5.2.5 for renewal requirements.

Prerequisites

- A Current Medical Certificate as per the Atlantic Canada Medical Assessment for Fitness to Work Offshore Guide.
- A valid BST.

Renewal

Three (3) years

Course Content

- Chemistry of fire;
- Fire suppression equipment;
- Personal protection and rescue equipment;
- SCBA;
- Fire prevention and drills;
- Fire detection systems;
- Fire assessment;
- Firefighting techniques;
- Fire scene search and rescue operations;
- Gas impinging fires;
- Machinery space fires; and
- Helicopter firefighting and rescue.

5.2.5 Offshore Fire Team–Recurrent (OFT-R)

Course Objectives

Applicable to drilling, production and accommodation installations

To provide recurrent practical training in fire suppression, rescue and personal protection techniques and to update individuals with respect to changes or advancements in equipment technology and procedures since their previous training.

Applies To

Personnel who are required to hold a valid certificate in OFT, and who wish to maintain the validity of the certificate.

Note: Individuals who do not complete OFT-R prior to the expiration of their OFT Certificate are required to repeat the five (5) day course. However, because of the intermittent nature of employment and course scheduling, a reasonable extension may be permitted upon review and approval by the Training Provider. In order for the Training Provider to consider a request for extension, the following criteria must be provided, at a minimum:

1. *Written request by the Operator submitted to the Training Provider before expiry of the certificate.*
2. *Reasonable rationale for the request, including evidence of attempts made to complete training required before certificate expiry (or explanation provided for why this was not possible).*
3. *Before the expiry of the certificate, the individual must be registered in an upcoming refresher course.*

Course Duration

Two (2) days

Prerequisites

- A Current Medical Certificate as per CAPP's Atlantic Canada Medical Assessment for Fitness to Work Offshore Guide.
- A valid OFT Certificate.

Renewal

Three (3) years

Course Content

- Chemistry of fire;
- Fire suppression equipment;
- Personal protective equipment;
- Fire prevention;
- Types of firefighting agents;
- Fire assessment;
- Firefighting techniques;
- Automatic fire detection and protection systems;
- Fire scene search and rescue; and
- Helideck firefighting techniques.

5.2.6 Offshore Fire Team Lead

Course Objectives

To equip the individual who is in charge of offshore fire emergency response teams and coordinating response actions with the necessary knowledge, understanding and skills to perform the role of offshore Fire Team Lead.

Course Duration

- Three (3) days (1 day theory and tabletop exercises & 2 days practical exercises acting as FTL with OFT/OFT-R course participants)

Prerequisites

- A Current Medical Certificate as per the Atlantic Canada Medical Assessment for Fitness to Work Offshore Guide.
- Valid OFT-R certificate.
- At least three (3) years of prior shipboard experience, or an equivalent combination of experience and training. (From the CoP - Each team must be under the direction of a designated team leader having at least three (3) years of prior shipboard experience, or an equivalent combination of experience and training.)

Renewal

To be determined by TQC following Fire Team Lead implementation.

Course Content

- Refer to Fire Team Lead competencies table.

Equipment

- Use same equipment as OFT/OFT-R
- Add radio for the FTL
- Add thermal imaging camera (TIC)

5.2.7 Person-in-Charge Assessment

Applies to drilling, production and accommodation installations

Assessment Objectives

To assess an individual's suitability for a command-and-control position and their ability to manage major emergencies on the offshore installation to which they have been assigned.

Applies To

Offshore Installation Managers and those designated to succeed Offshore Installation Managers (Deputy Person-In-Charge) in emergency situations. Other senior managers on offshore installations should also be assessed where appropriate to the organizational structure in question (e.g., Vessel Leads, Production Lead and Rig Superintendents).

Assessment Duration

This assessment may be completed as part of the Command & Control and Management of Major Emergencies course defined in this section of the document. If completed as a separate activity, a minimum of one day should be devoted to the assessment for each individual.

Prerequisites

Command & Control and Management of Major Emergencies

Note: Marine officers who have completed Marine Emergency Duties parts C and D in accordance with TP 4957 or the equivalent training in accordance with the IMO's STCW convention will still have to be assessed in accordance with the requirements of Section5.2.2 (Command & Control and Management of Major Emergencies) of this document.

Renewal

Every five (5) years.

Or every 2 years for those who cannot demonstrate having participated in emergency drills and exercises, in a command role, on an offshore installation in the past two years.

Assessment Content

Assessments must be carried out by an assessment team. One member of the team must have extensive relevant experience in offshore emergency management and formal training in conducting assessments. At least one member of the team must have experience in a command position. The assessment must be completed against properly documented, previously determined, objective criteria. The assessment must focus on the individual's command and control ability and their ability to manage major

emergencies not on technical details. Observation of the individual in realistic emergency scenarios must form a significant part of each assessment. Interviews, written tests and other assessment methodology should also form part of the assessment. The assessment must include, as a minimum, the following topics:

- Ability to maintain a state of readiness.
- Knowledge of contingency planning, emergency response procedures, drills and exercises;
- Knowledge of and ability to utilize resources;
- Ability to assess a situation, prioritize and implement effective action;
- Ability to maintain effective communications in emergency situations;
- Ability to effectively delegate authority;
- Knowledge of human factors as applicable to emergency situations;
- Ability to effectively undertake crisis management and crowd control;
- Ability to manage individuals and teams in emergencies; and
- Ability to deal with stress in oneself and in others.

5.2.8 Rescue Boats

Applicable to Marine Installations or Structures

Course Objectives

To provide designated Personnel with hands-on training in the operation of rescue boats.

Applies To

Personnel who have been assigned to the rescue boat team.

Course Duration

Fourteen hours

Prerequisites

- A Current Medical Certificate as per the Atlantic Canada Medical Assessment for Fitness to Work Offshore Guide.

Renewal

Three (3) years

Note: Re-certification may be obtained by either: completing the course and receiving a new certificate valid for three (3) years, or prior to the expiration of the certificate, the OIM issuing a written document, valid for three (3) years, attesting to the individual's continued proficiency in the operation of the Marine installation or Structure rescue boat and the recovery and care of casualties. Proficiency must be validated by a record of activity.

Course Content

- Crew selection and training
- Rescue Boat
- Rescue Boat Handling
- Launch and Recovery
- Casualty Handling

Note: For offshore Marine Installation or Structure outfitted with FRB for rescue purposes, applicable training requirements are detailed under section 10.2. Fast Rescue Craft/Boats.

5.2.9 Survival Craft Coxswain

Applicable to Marine Installations or Structures equipped with lifeboats

Course Objectives

To provide designated Personnel with theoretical and practical training that will enable them to take command of rigid and inflatable survival craft during abandonment.

Applies To

All designated survival craft coxswains.

Course Duration

Minimum of four (4) days

Prerequisites

- A Current Medical Certificate as per the Atlantic Canada Medical Assessment for Fitness to Work Offshore Guide.

Renewal

Three (3) years

Course Content

Refer to Section 15

Note: An STCW Certificate of Proficiency in Survival Craft and Rescue Boat training is an equivalent level of training and considered valid for a period of 3 years.

5.2.10 Survival Craft Coxswain - Recurrent

Applicable to drilling, production and accommodation installations

Course Objectives

To provide recurrent practical training that will enable trainees to take command of rigid and inflatable survival craft during abandonment.

Applies To

All designated survival craft coxswains on an offshore installation.

Note: Individuals who do not complete Survival Craft Coxswain-Recurrent training prior to the expiration of their Survival Craft Coxswain Certificate are required to repeat the Survival Craft Coxswain course. However, because of the intermittent nature of employment and course scheduling, a reasonable extension may be permitted upon review and approval by the Training Provider. In order for the Training Provider to consider a request for extension, the following criteria must be provided, at a minimum:

1. *Written request by the Operator submitted to the Training Provider before expiry of the certificate.*
2. *Reasonable rationale for the request, including evidence of attempts made to complete training required before certificate expiry (or explanation provided for why this was not possible).*
3. *Before the expiry of the certificate, the individual must be registered in an upcoming refresher course.*

Course Duration

Minimum of 1 day

Prerequisites

- A Current Medical Certificate as per the Atlantic Canada Medical Assessment for Fitness to Work Offshore Guide.
- A valid Survival Craft Coxswain certificate, or equivalent.

Note: The STCW Certificate of Proficiency in Survival Craft and Rescue Boats Excluding FRB is only considered valid for three years.

Renewal

Three (3) years

Course Content

Refer to Section 15.4

5.3 Environmental Response - Marine Wildlife Observer

The Marine Wildlife Observer is responsible for conducting marine surveys, identifying, recording, and reporting seabirds and marine wildlife as part of an Operator response to an offshore pollution incident.

Qualifications:
The observer should have a combination of education and experience in the identification of seabirds by species, sex and age and marine mammals. This can be obtained through post-secondary training or education in marine biology, ornithology, wildlife/environment conservation or resource management, etc or another means deemed appropriate by the Operator and successfully completed training in:

Mandatory Training

- A seabird identification course as per CWS-ECCC requirements
- Marine Mammal observation course
- Canada Seabirds at Sea (ECSAS) systematic survey protocol
- ECSAS seabird survey database use (data entry and submission)
- DFO Marine Mammal Observation Protocol
- Marine Mammal observation database use (data entry and submission).
- Refer to Section 3 for all required safety training.

Notes:

- *Marine Wildlife Observer with less than 5 days/year or 15 days in 3 years will be assigned with an experienced observer until at-sea experience is achieved.*
- *An MED A1 (Domestic Vessel Safety) is sufficient if the Marine Wildlife Observer is not traveling to or from a Marine Installation or Structure via helicopter.*
- *The BST-BST-R referenced in the Mandatory Training section above is not required if the Marine Wildlife Observer is not traveling to or from a Marine Installation or Structure via helicopter.*

5.4 Emergency Action Plans

To ensure a prompt and effective response to an emergency or crisis situation, Operators must develop, in respect of their offshore operations, a comprehensive emergency action plan that provides clear and concise guidance for actions to be taken under emergency scenarios that could reasonably be expected to occur. These must include, at a minimum, the following:

- Serious injuries or fatalities;
- Explosions or major fire;
- Release of hazardous substances;
- Loss of, or damage to, a helicopter, fixed wing aircraft or support vessel;
- Loss of, or damage to, the Marine Installation or Structure (e.g. loss of ballast control or stability) or impairment to critical equipment;
- Hazards unique to the operating area (e.g. adverse weather, sea ice, icebergs, collision or potential collision with an ocean going vessel);
- Spills of oil or other pollutants;
- Loss of well control, including relief well drilling arrangements, source capping and containment; and
- Criminal activity, or threats to commit, criminal activity.

The action plan should include an organization chart depicting key Operator and principal contractor Personnel who have an assigned responsibility for the management of emergencies.

Where more than one Operator is active in an area, they are encouraged to put in place mechanisms to facilitate the rapid exchange of information and, if necessary, to share resources such as vessels and aircraft in order to prevent or respond to alert and emergency situations.

5.5 Emergency Drills and Exercises

It is important that offshore Personnel, as well as onshore support Personnel and agencies, be well-practiced in reacting to possible emergency events for an offshore Marine Installation or Structure. These potential events must form the basis of developing emergency drills and exercise scenarios. Emergency drills and exercises based on realistic scenarios offer an effective means of validating the readiness of emergency action plans, equipment, and Personnel. They test the way notifications of emergencies and instructions are communicated, the simulated use of equipment and emergency teams, and the effectiveness of the chain of command. Additionally, they can provide ongoing safety and emergency action training and be used to assess the capability and readiness of Personnel, in particular those with a role on an emergency response team.

5.5.1 Emergency Drills

Emergency drills serve as an important means of establishing and practicing a routine. They provide Personnel with practical training on specific emergency equipment, means of access and procedures pertinent to their role in an emergency.

Subsection 30 (1) of the OHS Regulations requires that "every Employer must establish, for each workplace under its control that is a Marine Installation or Structure and having regard to the risk assessment carried out by it for the purpose of the occupational health and safety program, a plan that describes the emergency drills and exercises that must be conducted at the workplace in relation to various scenarios and sets out the frequency with which they must be conducted."

Because of the wide variety of emergency equipment used in the offshore industry, it is impracticable to provide detailed guidance on the content of drills. However, each Operator and Employer (if applicable) should establish minimum requirements regarding the type, frequency and objectives of emergency drills that will ensure the continued proficiency of Personnel in the use of emergency equipment and procedures, and the maintenance of emergency equipment in a state of operational readiness. Drills should be conducted to ensure that all Personnel are aware of their emergency stations and are capable of efficiently performing the emergency duties assigned to them.

The following is provided for the guidance of Operators in developing minimum requirements for conducting emergency drills.

a. Muster, Fire and Evacuation/Abandonment Drills

Purpose

To ensure all Personnel on the Marine Installation or Structure are familiar with:

- The location of, and routes to, muster and evacuation stations;
- The audio and visual signals which summon Personnel to these stations;
- The method(s) of accounting for Personnel at these stations; and
- Familiarization with evacuation procedures and equipment including offshore immersion suits.

Frequency

Muster - weekly

Evacuation – monthly

Abandonment – every 6 months (evacuation drill inclusive of demonstration of survival equipment and donning of immersion suits, and secure into a lift boat seat and orientation to the evacuation stations).

Paragraph 30(2)(d)(i) of the OHS Regulations require lifeboat orientation drills if the workplace is equipped with lifeboat, i) each Employee participates, at least once every six months, in a drill that is inclusive of demonstration of survival equipment, donning of an immersion suit, secure into a lift boat seat and orientation to the evacuation stations.

Fire – monthly

Participation

All Personnel on the Marine Installation or Structure. In exceptional circumstances, some Personnel assigned to critical operational duties may be exempt.

b. Fire Team Exercises

Purpose

To ensure designated Personnel on the Marine Installation or Structure are:

- Aware of the location(s) to assemble before proceeding to the scene of a fire;
- Familiar with the audio and visual signals which summon them to these assembly point(s);
- Familiar with the routes to the locations where portable firefighting equipment, including protective clothing, is stored;
- Aware of the areas covered by fixed firefighting systems;
- Efficient in the use of fire containment and extinguishing equipment;
- Able to correctly don and operate a SCBA or breathing air system; and
- Well-practiced in proper entry, search and rescue techniques.

Frequency

Weekly

Participation

All members of the Marine Installation or Structure designated fire teams, and any other Personnel with responsibility for firefighting as part of their emergency duties assignment.

c. Well Control Drills

Purpose

To ensure designated Personnel on drilling or production installations actively engaged in well operations are:

- Able to recognize an influx and sound the alarm;
- Able to record and calculate correct well control information for posting on the drill floor;
- Able to apply correct well control procedures when on bottom, while tripping drill pipe, when drill collars are in the BOP, and when out of the hole. This may include, but is not limited to drilling, tripping, completion, intervention, logging, testing, and stimulation activities, giving due consideration to specific operational aspects such as no pipe in hole, unshearables across the BOP, etc.

- Where applicable, familiar with the special problems and inherent hazards associated with HP/HT wells and/or deepwater wells;
- Able to correctly don and use a SCBA or breathing air system;
- Able to correctly enter the results of well control drills in the IADC report;
- aware of the barriers to flow and are practiced in both detection and prevention of the loss of a well barrier;
- Aware of the pass or fail criteria associated with a drill, and the potential implications of and inadequate response during an actual well control event; and
- Assessed for proficiency both collectively and individually in responding to a well control event.

Frequency

Weekly or otherwise at an increased frequency as needed to ensure crews proficiency.

Drills should be relevant to on-going or upcoming operations.

Participation

Senior well operations Personnel and all members of the well operations crew who have a designated role during a well control operation.

d. Ballast Control Drills

Purpose

To ensure designated Personnel on floating Marine Installations or Structures are:

- Familiar with the use of primary and back-up communications between the main and secondary control stations, if equipped, and any other areas containing equipment critical for maintaining the stability, draught and trim of the Marine Installation or Structure;
- Familiar with the equipment and procedures necessary for preserving the water tight integrity of the Marine Installation or Structure;
- Competent in the remote and local operation of all valves and equipment associated with the operation of the installation's ballast system; and
- Knowledgeable of the conditions and procedures for ballasting and de-ballasting the Marine Installation or Structure to its transit, storm, and operating draughts.

Frequency

Weekly – Column-stabilized installations

Quarterly – other types of floating Marine Installations or Structures

Participation

Senior marine Personnel and other Personnel with a designated responsibility for the operation of the installation's ballast system, or related equipment, under normal and adverse conditions.

e. Person Overboard/FRB Drills

Purpose

To ensure designated Personnel on the Marine Installations or Structures and support vessels equipped with rescue boats are:

- Competent in the actions to be taken in the event of a person overboard situation;
- Proficient in the launching, operation and recovery of the rescue boat, and the deployment of other available rescue equipment (e.g., life rings, scramble nets, EMPRA basket, etc.); and
- Able to correctly retrieve casualties from the water and return them to the deck of the Marine Installation or Structure.

Frequency

Monthly

Participation

Senior marine Personnel, members of the Marine Installation or Structure's and the support vessel's rescue boat teams, and other Personnel with responsibility for the recovery of casualties from the water as part of their emergency duties assignment. All other Personnel should be involved on a random basis to ensure their competence in the actions necessary to initiate a person overboard response. On a semi-annual basis the drill should include the installation's crane and Personnel lifting equipment.

f. First Aid Drills

Purpose

To ensure qualified Personnel on the Marine Installation or Structures are able to:

- Correctly apply the principles of safety oriented first aid; and
- Provide assistance to the medic in casualty management and handling, and in the preparation of casualties for evacuation.

Frequency

Monthly

Participation

The Medical Response Team.

Medical response team training meeting the criteria above will qualify as a first aid drill.

g. Anchor Quick Release Drills

Purpose

To ensure designated Personnel on an anchored Marine Installations or Structures (only applicable to moored MODU's) are:

- Aware of the logic and process leading up to the emergency release of chains;
- Familiar with the operation of release controls;
- Well-practiced in the testing of the emergency pawl release system; and
- Able to reset the pawls and confirm their correct positions.

Frequency

Monthly (only applicable to moored MODU's)

Participation

Senior marine Personnel and other Personnel with a designated responsibility for assisting with the retrieval or release of anchors in a collision avoidance situation.

h. Confined Space Rescue Team Drill

Purpose

To ensure Personnel with confined space rescue training and first aid duties are familiar with:

- Hazards likely to be faced during entry into enclosed spaces;
- Signs of adverse health effects caused by exposure to hazards during entry; and
- Personal protective equipment required for entry.

Frequency

At least once every two months

Participation

Crew members with enclosed space entry or rescue responsibilities.

Weekly confined space team training will be considered as equivalent to a confined space entry drill.

Note: This drill must meet the requirements of paragraph 133 (1) (k) of the OHS Regulations.

i. Maritime Security Drill

Security drills should test individual elements of the offshore Marine Installation or Structure security plan including response to security threats, breaches of security, and security incidents. Drills should take into account, in respect of the offshore installation, the types of operations, Personnel changes, types of vessels interfacing with it, and other relevant circumstances.

Frequency:

Drills should be conducted:

(a) at least once every 90 days; and
(b) as soon as practicable after operations resume at an offshore Marine Installation or Structure that has been out of service or inactive for more than three months.

Participation:

If, at any given time, more than 25% of the permanent Personnel at the offshore Marine Installation or Structure have not participated in a security drill within the previous three months, a security drill should be conducted within one week.

If an offshore Marine Installation or Structure is involved in the implementation of MARSEC level 2 or MARSEC level 3 following a security incident, the implementation of the MARSEC level can be considered equivalent to a drill.

5.5.2 Recordkeeping

A debriefing should be held following each drill to address the following considerations:

- Was the drill conducted safely?
- Was the drill completed in a reasonable time period
- Did all key Personnel participate?
- Were all other Personnel accounted for?
- Were Personnel alert and did they respond with diligence?
- Did Personnel know and follow established procedures?
- Were established procedures adequate?
- Was rescue/emergency equipment available and adequately maintained?
- Were communications adequate?
- Did the standby vessel react or respond as directed?

A record should be prepared for each drill describing the drill scenario and any recommendations for modifying the drill's procedure or improving its performance. A system should be established to ensure all recommendations are given proper consideration and appropriate actions taken. Figure 1, below, provides a sample *emergency drill summary* record.

Note: The emergency drill summary record must meet the requirements of subsection 30 (6) of the OHS Regulations.

Figure 1 Sample Emergency Drill Summary Record

EMERGENCY DRILL SUMMARY

Name of Installation/Vessel	Location	Date	
Drill Leader	Position	Exercise or Drill Start Time	Exercise or Drill Finish Time
		Muster Start Time	Muster Finish

Type of Drill: ❑Evacuation/Abandonment ❑Fire ❑Person Overboard/FRC ❑Anchor Quick Release ❑Well Control
❑Ballast Control ❑First Aid ❑Confined Space Entry ❑Maritime Security ❑Other

❑Muster ❑Ballast Control

Drill or Exercise Scenario:

		Yes	No	N/A
1.	Was the drill conducted safely?	❑	❑	❑
2.	Was the drill conducted in a reasonable time period?	❑	❑	❑
3.	Did all key Personnel participate?	❑	❑	❑
4.	Were all other Personnel accounted for?	❑	❑	❑

5.	Were Personnel alert and did they respond with diligence?	❑	❑	❑
6.	Did Personnel know and follow established procedures?	❑	❑	❑
7.	Were established procedures adequate?	❑	❑	❑
8.	Was rescue/emergency equipment available and adequately maintained?	❑	❑	❑
9.	Were communications adequate?	❑	❑	❑
10.	Did the standby vessel react or respond as directed?	❑	❑	❑

List of all Personnel who participated in the Drill Exercise or Scenario

Comments/Recommendations including observations regarding the execution of the drill or exercise and opportunities for improvement:

Completed by:	Position:	Date:

5.5.3 Emergency Exercises

Offshore Marine Installations or Structures rely on shore-based support during a response to a major emergency. It is, therefore, essential that Operators periodically test their overall state of emergency preparedness or readiness, including the communications and relationships between the Marine Installation or Structure, its support craft(s), and onshore emergency support teams.

Exercises should involve all designated offshore Personnel and onshore support teams, and any outside agency that may become involved in the response to a major emergency offshore.

To maximize the benefits of emergency exercises, considerable coordination and planning is required. Operators should consider the following protocol when developing and conducting an exercise:

- A scenario should be developed to define the problem and the parameters within which the exercise should be conducted.
- The scenario details should be sufficient to allow for a realistic exercise but not so prescriptive as to prevent variations and an injection of the unexpected.
- All affected key Personnel should be fully briefed as to their role within the scenario.
- Exercises should be carried out at a time which minimizes disruption to operations without detriment to the exercise objectives.
- In order to avoid confusion, consideration should be given to announcing all exercises in advance.
- Adequate observation should be maintained to monitor both the offshore and onshore elements of the exercise and provide objective assessment and feedback.
- Full account should be taken of the prevailing operational and environmental conditions in order to safeguard the safety of Personnel.
- A debrief session should be convened with designated Personnel to discuss lessons learned as a result of the exercise.
- A summary report that includes deficiencies noted and corrective action taken should be prepared.
- The exercise should be officially recorded.

Refer to Section 3.3 for the definitions of “Emergency Drill” and “Emergency exercise”.

Frequency

Offshore Emergency exercises to be held a minimum of every 3 months.

Offshore/Onshore Emergency exercises to be held at a minimum of every 18 months. Participation should include all appropriate offshore Personnel and onshore support teams, and any outside agency that may become involved in the response to a major emergency offshore.

5.5.4 Maritime Security Exercises

Maritime security exercises should fully test:

- The offshore Marine Installation or Structure security plan, with active participation of Personnel who have specified security responsibilities; and
- The communication and notification procedures, elements of coordination, resource availability and response.

Exercises may be:

- Full-scale or live;
- Tabletop simulation or seminar;
- Combined with other appropriate exercises; or
- A combination of the above.

Frequency:

Should be conducted at least once every calendar year with no more than 18 months between them.

Participation:

Depending on their scope and nature, security exercises may include security Personnel from vessels, marine facilities, other offshore Marine Installation or Structure, or competent authorities.

6 Technical Training

This chapter outlines specialized technical training specific to areas of technical responsibility and is intended to ensure Personnel assigned responsibility for the integrity and safe operation of the well and the Marine Installation or Structure are properly trained and competent in their area of responsibility.

The following technical training is outlined in this chapter:

6 Technical Training
6.1 Workplace Committee or Representative Training
6.2 Advanced First Aid
6.3 Standard First Aid
6.4 Atmospheric Gas Tester Training
6.5 CCR Panel Assessment
6.6 Confined Space Training
6.7 Fall Protection Training
6.8 Hazardous Area Equipment Training
6.9 Hazardous Area Equipment Training - Recurrent
6.10 Arc Flash Training
6.11 Incident Investigation Training
6.12 Oil Well Explosives Handling
6.13 Recognized Auditor Training
6.14 Rope Access Training
6.14.1 Level 1 Rope Access Technician
6.14.2 Level 2 Rope Access Technician
6.14.3 Level 3 Rope Access Technician (Supervisor)
6.15 Crane Operator and Other Materials Handling (Not on A Drilling or Production facility) Offshore Crane Operator Training Assessment
6.16 Rigger Training
6.17 Banksman Training
6.18 Scaffolding Training
6.18.1 Competent Scaffold Erection
6.18.2 Advanced Scaffold Erection
6.19 Stability and Ballast Control
6.20 Stability and Ballast Control - Recurrent

6.21 Stability of Self-Elevating Units
6.22 Stability of Self-Elevating Units - Recurrent
6.23 Transportation of Dangerous Goods (TDG)

6.1 Workplace Committee or Representative Training

Pursuant to the *Accord Acts*, in order that the workplace committee for programs greater than six months can fulfill their duties and functions as a member of the committee, all members must be provided instruction and training. Members of the committee should be provided with training or instruction in the following:

- OHS Committee training should be provided which addresses the *Accord Acts*. If members of the workplace committee have received training under legislation of another authority, members should also be provided with supplemental training to address any differences between that legislation and the Accord Acts;
- An overview of the specific programs in place at the workplace;
- Training in root cause analysis incident investigation techniques specific to the workplace;
- Any other training that enables the committee to effectively perform their duties including workplace HSE inspections, behavioral based observation programs, etc.; and
- An overview of the Committee Rules of Procedure (also referred to as Charter) specific to the workplace.

With respect to workplace committees or coordinators for programs less than six months, training in health and safety to enable them to fulfill their duties and functions is to be provided pursuant to the *Accord Acts.*

In Newfoundland & Labrador, the C-NLOER recognizes Workplace NL Committee/Representative/Designate Certification Training as meeting the requirements set out in the *Act.*

In Nova Scotia, the CNSOER recognizes workplace committee training in accordance with the *Nova Scotia Occupational Health and Safety Act*. Courses can be obtained by contacting the Occupational Health and Safety Division of the Department of Labour Skills and Immigration.

6.2 Advanced First Aid

Course Objectives

To provide designated Personnel with intensive training in the application of advanced first aid techniques.

Applies To

Offshore Marine Installations or Structures with 11 or more Personnel on board. Refer to the *OHS Regulations*, current versions, for specific requirements based on the number of Personnel on board.

Advanced first aid certificate means a certificate evidencing the holder's successful completion of a training program whose curriculum conforms to advanced first aid set out in CSA Group standard Z1210, first aid training for the workplace – Curriculum and quality management for training agencies, or, in the case of marine crew on a vessel, whose curriculum conforms to Chapter 4 of Department of Transport publication TP 13008, Training Standards for Marine First Aid and Marine Medical Care.

Course Duration

The duration that is required by CSA Z1210 and TP 13008 for marine crew.

Prerequisites

None

Renewal

CPR-HCP/AED (Health Care Professional), annual renewal.

Course Content

As per the *OHS Regulations*, the curriculum must conform to the curriculum for advanced first aid set out in CSA Group standard Z1210, First aid training for the workplace – Curriculum and quality management for training agencies, or, in the case of marine crew on a vessel, whose curriculum conforms to Chapter 4 of Department of Transport publication TP 13008, Training Standards for Marine First Aid and Marine Medical Care.

6.3 Standard First Aid

Course Objectives

To provide designated Personnel with the knowledge and skills necessary to apply the basic principles of safety oriented first aid.

Applies To

Offshore Marine Installations or Structures with 6 or more Personnel on board. Refer to the *OHS Regulations*, current versions, for specific requirements based on the number of Personnel on board.

Course Duration

The duration that is required by CSA Z1210 and TP 13008 for marine crew.

Prerequisites

None

Renewal

Three (3) years

Course Content

As per the *OHS Regulations*, the curriculum must conform to the curriculum for standard first aid set out in CSA Group standard Z1210, First aid training for the workplace – Curriculum and quality management for training agencies, or, in the case of marine crew on a vessel, whose curriculum conforms to Chapter 4 of Department of Transport publication TP 13008, Training Standards for Marine First Aid and Marine Medical Care.

6.4 Atmospheric Gas Tester Training

Course Objectives

The course is designed for Personnel who are required to verify that the health and safety of Personnel is protected and maintained during access to areas where atmospheric hazards may exist.

The training is to include lectures, demonstration, class discussions and hands on practice. Upon completion of the training, Personnel must demonstrate the prescribed practical skills to the satisfaction of the instructor and a written examination shall be successfully completed.

Equipment

The instructor shall ensure that the following equipment is of an approved type, in good condition and is available for each course delivery in the ratios listed below:

- Electronic Gas Detector: at least one for instructor demonstration; and
- Sample Gas: sufficient gas for students to obtain a reading using the electronic gas detector.

Applies To

Personnel who, as part of their role, are required to test the atmosphere of confined spaces and other vessels, equipment, or worksites which may have the possibility to become unsafe (e.g. during an emergency) to verify it is safe for entry and for the safe execution of work.

Note 1 – In addition to successful completion of this training, Personnel MUST receive site specific instruction and be certified competent on the use of the gas detection equipment and procedures being used on the Marine Installation or Structure. This site-specific training and competency assessment must be properly documented. It is expected that the training will be developed and delivered by a competent person.

Note 2 – This course does not apply to Personnel who are required to wear a gas detector for personal monitoring as part of an Operator's/Drilling Contractor/Vessel Owner Competency Management System and/or Control of Work System. Training and competency requirements for "personal gas monitoring" will be provided through site/facility specific training.

Course Duration

Minimum of one day (excluding site specific training)

Renewal

3 years

Course Content

The course includes the following:

- Applicable legislation including as it pertains to rights and duties;
- Training on the identification of confined spaces or spaces that have the potential to become hazardous;
- Training on and practice in the assessment of risks associated with confined spaces, including the particular risks of carrying out hot work in confined spaces;
- Training on the issuance and use of work permits for the occupation of confined spaces;
- An overview of the operation of personal gas monitoring devices;
- Training on atmospheric testing, including practice in selecting appropriate testing methods and equipment;
- Training on methods to safely ventilate or remove unwanted substances from confined spaces;
- Physical properties of chemicals;
- Gas laws;
- Causes and nature of oxygen deficiency and how to test in oxygen deficient environments;
- Gas detectors – instrument types and selection criteria;
- Gas detectors – care and use; and
- Colorimetric Method (gas detector tubes) – principles of operation and performance characteristics.

6.5 CCR Panel Assessment

Objectives

To ensure that designated individuals have been formally assessed against established criteria for their abilities to monitor and control production processes, emergency shutdown systems, fire and gas protection systems and other emergency systems as applicable to the control room to which they are assigned.

Applies To

Control Room Operators on production installations and to applicable supervisory and management Personnel.

Course Duration

Not applicable

Prerequisites

On-the-job training and/or process simulator training as determined by the Operator.

Renewal

Not applicable

Course Content

The content should cover all systems they are assigned to monitor and should include an assessment of the Control Room Operator's ability to respond to upsets and emergency events, as well as, alarm management. This assessment may be completed as a separate exercise by a competent third party or by competent Operator or Marine Installation or Structure owner Personnel. In either case it must be formally documented. Guidance on assessments can be found on OPITO's website.

6.6 Confined Space Training

Course Objectives

To provide Personnel who enter confined spaces with the knowledge necessary to identify and control hazards such that they may work safely in the space and be competent to deal with foreseeable emergency situations.

Applies To

All-Personnel whose work involves entering, evaluating, attending at, supervising persons in or carrying out emergency response procedures in relation to a confined space.

Note: In addition to successful completion of this training, Personnel MUST receive site specific instruction for the role that they carry out offshore and be deemed competent by the Operator.

Course Duration

One day

Prerequisites

None

Renewal

Three years

Course Content

- Legislation applicable to confined spaces;
- Practice in the use of confined space entry procedures and equipment;
- Identify confined space hazards, appropriate testing methods and equipment and protection systems for work activities;
- Definition of confined spaces with identification of confined spaces and their hazards;
- Training on and practice in the assessment of risks associated with confined spaces including the particular risks of carrying out hot work in confined spaces;
- Hazard assessment;
- Training on the issuance and use of confined space work permit systems and standard procedures;
- Familiarization with the operation of gas monitoring equipment;

- Atmospheric testing including practice in selecting appropriate testing methods and equipment;
- Methods to safely ventilate and/or purge confined spaces;
- Isolation requirements for substances, energy and equipment;
- Duties of Supervisors and entrants;
- Confined space safety watch responsibilities;
- Entrant tracking;
- Overview of rescue and emergency response (including rescue plan); and
- Training on and practice in the selection and use of appropriate personal protective equipment i.e., Emergency Escape Breathing Devices.

6.7 Fall Protection Training

Objectives

To ensure that designated Personnel understand the proper selection, inspection, use and maintenance of fall protection equipment.

Applies To
All Personnel working at heights onboard a Marine Installation or Structure who are involved in activities requiring the use of a fall-arrest system or travel restraint system.

Course Duration
One day specific to the offshore Atlantic Canada oil and gas industry.

Prerequisites
None

Renewal
Every three years

Course Content

- Legislative requirements that relate to fall protection, including those relating to the roles and responsibilities of workplace parties;
- An overview of the provisions of all applicable health and safety legislation and standards that relate to fall protection, including those relating to the roles and responsibilities of workplace parties;
- Fall protection theory including an overview of the hierarchy of controls that may be used to minimize the risk of falling and of injury from a fall;
- Types of equipment and limitations of each type;
- Identification of equipment using samples including instruction on assessing and selecting specific anchors for use with the fall-arrest system or travel restraint system;
- Theoretical applications of fall arrest and fall prevention systems;
- Pre-use inspection of equipment using samples;
- The correct fitting of harnesses using examples;
- Ladder ascent and descent using permanent and temporary systems;
- Proper care and use of fall arrest lanyards with deceleration shock absorbers;
- The use of vertical and horizontal lifelines;

- Instruction and training on the use, storage, maintenance and inspection — including pre-use inspection — of fall-arrest systems, travel restraint systems and their components, including practice in inspecting, fitting, adjusting and connecting the systems and components;
- Introduction to rescue considerations including training on emergency response procedures to be used if a fall occurs, including practice in carrying them out;
- Practical training in the use and application of fall arrest equipment and fall prevention systems; and
- Training on the effects on the human body of a fall — including free fall and swing fall — and fall-arrest, which must address maximum arresting force and the purpose of energy absorbers.

Note: Should the Marine Installation or Structure enter provincial jurisdiction offshore then provincial fall protection requirements apply.

Note: The instruction and training must be provided (a) before the work that requires the use of the fall-arrest system or travel restraint system begins; and (b) at least once every three years. Note: if the training provided does not cover the requirements of the OHS Regulations, supplemental training must be provided.

6.8 Hazardous Area Equipment Training

Objectives

To ensure designated Personnel have a thorough understanding of the theory and principles used to protect electrical equipment in hazardous areas and in the design of electrical systems for use in hazardous areas (or areas that may become hazardous). To provide designated individuals with an understanding of appropriate legislation, codes and standards. To provide designated Personnel with hands on training in the installation, maintenance and inspection of electrical equipment in hazardous areas.

Applies To

Rig Electricians, Electronics Technicians, Electrical Technicians, Instrument Technicians, Telecommunications Technicians, Design Engineers.

Course Duration

Five (5) days

Prerequisites

None

Renewal

3 years (36 months)

Course Content

Theoretical training in:

- Principles of flammable materials;
- Division area and IEC zone classification, including differences for dust, mist, ignitable fiber flyings, etc.);
- Equipment marking and selection;
- Methods of explosion protection;
- Intrinsic safety;
- Equipment inspection and maintenance;
- Maintenance of power circuits;
- Maintenance of intrinsically safe circuits; and
- The difference between North America and International IEC standard with respect to workmanship (maintenance, inspection and Marine Installation or Structure).

- An understanding that the application of codes and standards only applies to normal operating conditions and not to emergency events (e.g., importance of emergency shutdown system and equipment required to stay live following an emergency shutdown and associated requirements.

Practical training in:

- Glanding;
- Installation of power circuits;
- Inspection of power circuits;
- Installation of intrinsically safe circuits;
- Inspection of intrinsically safe circuits;
- Maintenance of power circuits;
- Maintenance of intrinsically safe circuits; and
- The difference between North America and International IEC standard with respect to workmanship (selection, construction, maintenance, inspection and installation).

6.9 Hazardous Area Equipment Training - Recurrent

Objectives

To ensure that those who are involved in engineering or installation in hazardous areas are conversant with the risk associated with improper maintenance and know how to design and implement an inspection program that meets international standards. The refresher provides an opportunity to review the theory and obtain practice with the tools to develop an EX-equipment maintenance strategy that reduces the risk of fire or explosion due to failed equipment to a level that is “as low as reasonably practicable”.

Applies To

Rig Electricians, Electronics Technicians, Electrical Technicians, Instrument Technicians, Telecommunications Technicians, Design Engineers

Note: Individuals who do not complete the Hazardous Area Equipment Training-Recurrent prior to the expiration of their Hazardous Area Certificate are required to repeat the five (5) day course. However, because of the intermittent nature of employment and course scheduling, a reasonable extension may be permitted upon review and approval by the training institute. In order for the training institute to consider a request for extension, the following criteria must be provided, at a minimum:

- *Written request by the Operator submitted to the Training Provider before expiry of the certificate.*
- *Reasonable rationale for the request, including evidence of attempts made to complete training required before certificate expiry (or explanation provided for why this was not possible).*
- *Before the expiry of the certificate, the individual must be registered in an upcoming refresher course.*

Prerequisites

A valid certificate in Hazardous Area Equipment Training that meets the course content requirements of Section 6.8 of this COP TQOP.

Renewal

3 years (36 months)

Course Content

- Hazardous atmospheres;

- Area classification;
- Ignition sources;
- Methods of explosion protection;
- Apparatus standards, certification and marking;
- Intrinsic safety; and
- General Principles of inspection and maintenance.

6.10 Arc Flash Training

Objectives

Paragraph 142 (i) of the OHS Regulations requires that Employers must ensure that if a person at a workplace under its control must work within an arc flash boundary identified under paragraph *142(j), (a)* that person has received training in the recognition and mitigation of arc flash hazards; (b) that person wears arc-rated personal protective equipment that is selected having regard to the information set out on the label referred to in paragraph *144(1)(l);* and (c) the work is constantly observed by an electrical safety watcher designated by the Employer.

Applies To

All Personnel within an arc flash boundary in accordance with Arc Flash Training – CSA Z462 -2021 – Certified Electrical Safety Instruction or NFPA 70E Standard for Electrical Safety for the Workplace.

Prerequisites

None

Renewal
3 years (36 months)

Course Content

As per – CSA Z462 -2021 – Certified Electrical Safety Instruction or NFPA 70E Standard for Electrical Safety for the Workplace.

6.11 Incident Investigation Training

Objectives

To ensure that designated individuals can carry out effective and objective incident investigations including root cause analysis in accordance with recognized methodologies and protocols.

Applies To

The lead investigator for all incidents reportable to the offshore Energy Regulator is required to have this training.

Note: Appropriate training is recommended for all members of investigation teams including representatives of the workplace committee or representative.

Course Duration

Minimum of sixteen (16) hours

Prerequisites
None

Renewal
Renewal training is required if an individual has not participated in an investigation in the past three years.

Course Content
The course should focus on methods and techniques to gather objective evidence and establish the facts and sequence of events surrounding an incident such that casual factors, both immediate and root causes, may be determined and effective corrective action recommended to prevent reoccurrence. The course should include:

- Procedures for planning and conducting investigations;
- Methodologies to analyze the data gathered during the investigations;
- The development and evaluation of corrective measures;
- The preparation of an investigation report, including corrective and preventative actions;
- Accident/Incident causation theory;
- Accident potential recognition;
- Investigation techniques;

- Sample investigations;
- Sample accident reports;
- Physical evidence gathering and photography;
- Makeup of investigation teams;
- 'Root Cause Analysis'; and
- Basic interviewing techniques and witness statements.

6.12 Oil Well Explosives Handling

Paragraph 153 (1)(a) of the OHS Regulation outlines the requirements for competence for explosives handling.

Objectives

To ensure that Personnel handling explosives related to perforating, completions, fracturing and other well-related activities are qualified to safely transport, store and handle these materials and to use them properly to safely achieve the intended result.

Applies To

This training applies to all Personnel who use or have access to explosives and supervise well-related operations requiring the use of explosives, e.g., contractor's wire-line and coiled tubing Supervisors.

Note: Personnel who handle explosives for other activities must be suitably trained and qualified pursuant to applicable legislation, appropriate codes and standards and company policy. Further, this document deals with formal training requirements and holders of a recognized certificate must also have offshore experience appropriate to the tasks being performed.

Course Duration

Two (2) days

Prerequisites

- Minimum 18 years of age;
- A minimum of six months hands-on experience in preparing and firing oil well explosive charges in the 36 months immediately preceding the application date; and,
- Physically capable of performing the duties of an oil well blaster.

Renewal

In accordance with API RP 67

Every five years

Course Content

- Classification of explosives used in oilfield service operations;.
- Characteristics and behavior of each class of explosive;.

- Procedures for the safe handling of explosives, including detonators;
- Safe storage, transportation; handling and use of explosives both in the shop and at the well site;
- Procedures for safe wellsite operations involving the use of explosive devices;
- Use of explosives in wire-line perforating and completions, TCP perforating, fracturing, pipe recovery and tool services;
- Emergency response procedures;
- Safe work practices for well site storage, handling, loading and firing of oil well explosives;
- Function of oil well explosive accessories and tools; Rating Applicable laws, codes and standards; and
- Function of oil well explosive accessories and tools in oil well applications.

6.13 Recognized Auditor Training

Objectives

To ensure that designated individuals can carry out effective and objective audit activities in accordance with recognized methodologies and protocols.

Applies To

HSE Advisor

Course Duration

Minimum of sixteen (16) hours

Prerequisites

None

Renewal

Renewal training is required if an individual has not participated in an audit in the past three years.

Course Content

Minimum requirement is a 2-day internal auditor course that would be eligible for Continuing Education Credits (CEUs) for maintaining a professional designation by a certification body (for example: Board of Canadian Registered Safety Professionals. (BCRSP), Canadian Environmental Certification Approvals Board (CECAB), ECO, International Register of Certificated Auditors (IRCA).

6.14 Rope Access Training

Refer to section 112of the *OHS Regulations* for requirements.

Course Objective

To ensure that designated Personnel have been formally trained and assessed against established criteria for their abilities to demonstrate their understanding of proper selection, inspection, maintenance, and operating techniques of rope access equipment in an offshore environment and meet the requirements of (IRATA), International Code of Practice and General Requirements.

Applies To

All Personnel who are designed to conduct work utilizing rope access equipment and techniques.

Note: Three levels of competence have been identified, requirements noted below as 6.14.1 Level 1 Rope Access Technician; 6.14.2 Level 2 Rope Access Technician; and 6.14.3 Level 3 Rope Access Technician (Supervisor).

Note: The training and competency described in the IRATA standards only applies to the rope access work itself. Rope access technicians should not be required to conduct any activity that they have not been qualified to perform (e.g., electrical, welding, non-destructive examination, etc.). A competent person should be provided with a safe means of access to conduct those activities.

6.14.1 Level 1 Rope Access Technician

Course Duration

Minimum of four (4) days, plus 1-day independent IRATA assessment.

Prerequisites

As per IRATA.

Renewal

Minimum of two (2) days training, plus 1-day independent IRATA assessment every three (3) years. Technicians not engaged in rope access work for six months or more should attend refresher training.

Expected Competencies

A Level 1 Rope Access Technician is able to perform a limited range of rope access tasks under the supervision of an IRATA Level 3 rope access technician.

Course Content

The course content must meet IRATA Level 1 syllabus content, including, but not limited to:

- Theoretical Knowledge;
- Equipment and Rigging;
- Maneuvers;
- Climbing; and
- Rescue/Hauling.

6.14.2 Level 2 Rope Access Technician

Course Duration

Minimum of four (4) days, plus 1-day independent IRATA assessment.

Prerequisites

As per IRATA.

Renewal

Minimum of two (2) days training, plus 1-day independent IRATA assessment every three (3) years. A level 2 technician undertaking re-assessment after expiry of the current assessment would require four (4) days of training instead of two (2) days. Technicians not engaged in rope access work for six months or more should attend refresher training.

Expected Competencies

A Level 2 Rope Access Technician is capable or rigging work ropes, undertaking rescues and performing rope access tasks under the supervision of an IRATA Level 3 Supervisor.

Course Content

The course content must meet IRATA Level 2 syllabus content, including, but not limited to:

- Theoretical Knowledge;
- Equipment and Rigging;
- Maneuvers;
- Climbing; and
- Rescue/Hauling.

6.14.3 Level 3 Rope Access Technician (Supervisor)

Course Duration
Minimum of four (4) days, plus 1-day independent IRATA assessment.

Prerequisites
As per IRATA.

Renewal
Minimum of two (2) days training, plus 1-day independent IRATA assessment every three (3) years. A Level 3 technician undertaking re-assessment after expiry of the current assessment would require four (4) days of training instead of two (2) days. Technicians not engaged in rope access work for six months or more should attend refresher training.

Expected Competencies
A Level 3 Rope Access Technician is capable of site supervision for rope access work projects; is able to demonstrate the skills and knowledge required of Levels 1, 2 and 3; is conversant with relevant work techniques and legislation; has a comprehensive knowledge of advanced rescue techniques; holds a current first aid certificate and has knowledge of the IRATA certification scheme.

Course Content
The course content must meet IRATA level 3 syllabus content, including, but not limited to:

- Theoretical Knowledge;
- Equipment and Rigging;
- Maneuvers;
- Climbing; and
- Rescue/Hauling.

6.15 Crane Operator and Other Materials Handling (Not on A Drilling or Production facility) Offshore Crane Operator Training Assessment

Section 129 *of the OHS Regulations* apply.

Objectives

To provide Personnel with the knowledge and skills to safely operate cranes and other material handling equipment.

Requirements

Offshore Pedestal Mounted Cranes

Crane Operators who operate offshore pedestal mounted cranes must have successfully completed theoretical and practical training at a recognized training institution or from a Qualified instructor. In either case, the training program must be formally documented.

Crane Operators must also be formally assessed against API RP 2D-2 – Training for Offshore Pedestal-Mounted Crane Riggers, Operator and Inspectors, current edition. This assessment may be completed by a competent third-party or by competent Personnel onboard or Marine Installation or Structure. The training should also be suitable for working in our physical environmental conditions (e.g., sea states) or additional competency assessment be provided to demonstrate that they are aware of the limitations of the equipment. In either case competence and their ability to safely operate the crane to which they are assigned, must be formally assessed against established criteria. The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Other Offshore Cranes

Crane Operators who operate other offshore cranes (for example, knuckle-boom cranes, gantry cranes, etc.) must have successfully completed theoretical and practical training at a recognized training institution or from a Qualified instructor. In either case, the training program must be formally documented and include a process of ongoing competence assessment. The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Materials Handling Equipment

Note: The OHS Regulations define materials handling equipment as equipment, other than an elevator or Personnel lift, that is used to transport, lift, move or position things or

persons and includes gear and devices used in conjunction with other equipment in carrying out those functions.

Employees who operate materials handling equipment must have successfully completed theoretical and practical training at a recognized training institution or from a Qualified instructor. In either case, the training program must be formally documented and include a process of ongoing competence assessment.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Applies To

Crane Operators and other Personnel who operate materials handling equipment on Marine Installations and Structures. Additional qualification requirements for a Crane Operator on a Marine Installation or Structure is covered in Sections 8.22 and 9.17 respectively.

Course Duration

Not specified

Prerequisites

None

Renewal

As appropriate

Course Content

A training syllabus appropriate to the type of crane or material handling equipment. At a minimum, the content should include the theoretical and practical training to allow an Employee to recognize hazards and operate the equipment safely.

Note: Section 129 of the OHS Regulations applies which requires that the instruction and training that every Employer must provide to an Employee who uses materials handling equipment in the course of their work includes instruction and training on the effects of environmental conditions on the equipment's safe and proper use.

6.16 Rigger Training

To ensure that designated Personnel know the appropriate methods to be followed in rigging and lifting operations onboard offshore installations. To ensure that designated Personnel have a basic understanding of the construction, inspection, maintenance and selection of lifting equipment, including any limitations and safety issues associated with the material. To ensure that designated Personnel understand all the necessary safety factors, which must be considered prior to and during the movement of a load, including risk assessment, proper lift planning requirements and types of lifts.

Applies To

Any Personnel conducting rigging and lifting operations or who supervise lifting operations. Examples of positions that may require this training includes Deck Supervisors, Crane Operators, Deck Operators, Roustabouts, Mechanics, Millwrights or other positions.

Course Duration

Minimum of two (2) days

Prerequisites

None

Renewal

Suitable and documented refresher training or competency review to be provided every four (4) years.

Course Content

As per API RP 2D-2, current edition.

Note: For riggers working with offshore mounted pedestal cranes API RP 2D applies. Rigger training using other cranes for lifts follow API RP 2D or an equivalent level of training.

Refer to the Code of Practice Atlantic Canada Offshore Petroleum Industry Safe Lifting Practice Respecting the Design, Operation and Maintenance of Materials Handling Equipment for training and competency requirements for crane inspectors and third-party inspectors of materials handling equipment.

6.17 Banksman Training

Objectives

To ensure that designated Personnel know the appropriate methods to be followed in directing and slinging loads onboard an offshore Marine Installation and Structure. To ensure that Personnel responsible for signaling and directing loads on an offshore Marine Installation or Structure understand correct signaling procedures, the physical limitations of cranes, factors which affect the crane and Crane Operator's ability to respond. To ensure that designated Personnel understand all the necessary safety factors, which must be considered prior to and during the movement of a load.

Applies To

Deck Supervisors, Crane Operators, Deck Operators, Roustabouts, and any other Personnel who are involved in crane operations.

Course Duration

Minimum of one (1) day

Prerequisites

None

Renewal

Suitable and documented refresher training or competency review to be provided every four (4) years.

Course Content

Training course must include the following components in its objectives:

- Legislation, roles and responsibilities;
- Safety and risk assessment;
- Manual handling;
- Proper use and handling of equipment;
- Lifting, placing and disconnecting loads;
- Identification and demonstration of hand and radio signals; and
- Risk assessments, lifting plans and controls.

6.18 Scaffolding Training

Objectives

To ensure that designated Personnel have been formally trained and/or assessed against established criteria for their abilities to demonstrate their understanding of the proper selection, inspection, erection, alteration, dismantling and maintenance of scaffold structures and associated equipment in an offshore environment and meet the requirements of CSA, Z797 “Code of Practice for Access Scaffolding” (latest edition).

Applies To

All Personnel who are designated to work at scaffolding erection and dismantling.

Note: Two levels of Scaffolding Training have been identified, requirements for each are denoted below as 6.18.1 Competent Scaffold Erection and 6.18.2 Advanced Scaffold Erection.

6.18.1 Competent Scaffold Erection

Course Duration

Minimum of three (3) days

Prerequisites

None

Renewal

Completion of a course in competent scaffold erection every three years or every three years successful completion of a documented in-house or third-party trade refresher or competency assessment meeting the CSA, Z797 “Code of Practice for Access Scaffolding” (latest edition).

Expected Competencies

The individual will have been trained in the requirements for scaffold erection and dismantling as outlined in CSA, Z797 “Code of Practice for Access Scaffolding” (latest edition) and under competent supervision will be capable of erecting and dismantling for the general type of access scaffold systems being used in the offshore environment on a Marine Installation or Structure.

Course Content

The course outline should include but not be limited to:

- Applicable federal and provincial regulations, rules and guidelines;
- Scaffold definitions and terminology;
- Scaffold foundations and support;
- Scaffold erection and bracing;
- Scaffold stability and tie back systems;
- Work platform types and duty ratings;
- Allowable and applied loads;
- Scaffold access types (ladders, stairs, etc.);
- Specific procedures for erection, use and dismantle of the type of scaffolding in question;
- Inspection criteria, classification, and communication of scaffold status, including tagging and corrective actions to be taken;
- Nature of scaffold hazards, including electrical hazards, falling object hazards in the work area and correct procedures for dealing with those hazards;
- Fall protection applications and their components, use and inspection and emergency plans; and
- Practical instruction and evaluation demonstrating skills learned through use and erection of scaffold components.

6.18.2 Advanced Scaffold Erection

Course Duration

Minimum of three (3) days

Prerequisites

Three (3) years verifiable industrial scaffold experience or successful completion of a recognized scaffolding program with two years verifiable industrial scaffold experience.

Renewal

Every three (3) years individuals are to take part in a in-house or third-party trade refresher course or competency assessment that meets the requirements set out in this section of the document.

Expected Competencies

In addition to competencies noted for competent scaffold erection, the Advanced Scaffold Erector through a combination of training, experience and competency assessment is capable under competent supervision to work on specialized types of scaffolding required offshore such as hanging, cantilever, birdcage, and special engineered designed scaffolding.

Course Content

The scaffolding provider shall verify competency of Personnel through documented verification of training certification and trade experience as noted above.

Personnel shall pass a trade test which shall be administered by the competent scaffolding provider or competent third-party. These assessments must be formally documented and should include the following:

- Erect tower scaffold;
- Dismantle tower scaffold;
- Erect independent scaffold;
- Dismantle independent scaffold;
- Erect birdcage scaffold;
- Dismantle birdcage scaffold;
- Erect hanging and cantilever scaffolds;
- Dismantle hanging and cantilever scaffolds;

- Demonstrate understanding of scaffold design criteria, maximum intended load capacity and intended use of scaffold and load carrying capacity; and
- Demonstrate scaffold inspection techniques and tagging systems.

6.19 Stability and Ballast Control

Course Objectives

To provide designated Personnel with an advanced knowledge of the principles of stability and the application of that knowledge to the day-to-day operation of a Semi-submersible (i.e. column-stabilized) installation in both the intact and damaged condition with emphasis on the response of the installation to various loading and environmental forces.

Applies To

Offshore Installation Managers, Rig Captains, Barge Supervisors, Assistant Barge Supervisors, Ballast Control Operators, and any other individual who is assigned responsibility for the operation, or supervision of the operation, of the ballast system on a Semi-submersible installation.

Course Duration

Minimum of nine (9) days (Combined duration for Stability II and Stability III)

Prerequisites

A basic course in stability theory of at least five (5) days in duration, or a maritime education equivalent to Ship Construction and Stability Course level 4,

Renewal

Three (3) years as outlined in section 6.20 Stability and Ballast Control – Recurrent.

Course Content

- Theory of moments as applied to stability;
- Stable, neutral and unstable equilibrium;
- Theory and effect of free surface on stability;
- The inclining experiment;
- Effects of adding, removing and shifting of weights;
- Change of trim, change of draft, change of longitudinal center of buoyancy and center of gravity, tons per inch (TPI) and moments to trim one inch (MTI)
- Stability at large angles;
- Use of hydrostatic curves, hydrostatic tables, deadweight scales and tank capacity tables;
- Deck loads and its effect on stability;

- Bilge and ballasting systems;
- Damaged stability, damage control procedures, watertight compartments, counter flooding, use of pumps and secondary deballast systems;
- Calculation of final draft after flooding of various compartments;
- Environmental conditions and their effect on stability;
- By-passing pumps for gravity flow;
- Unsymmetrical ballasting and deballasting;
- Stability curves;
- Daily loading reports and operations manuals; and
- Mooring systems.

Note: Course curriculum must include the use of a computer-based ballast control simulator capable of simulating the functions of a typical twin pontoon Semi-submersible- installation and the response of the to various loading and environmental forces in both the intact and damaged condition. The simulator shall be mounted on a tilting device or provided with a dedicated display, which gives a continuous pictorial representation of the attitude of the (i.e., combined heel and trim).

6.20 Stability and Ballast Control - Recurrent

Course Objectives

To provide designated Personnel with recurrent training in the fundamentals of stability, and to ensure a controlled level of competence is maintained by those individuals who have an assigned responsibility for the operation, or supervision of the operation, of the ballast control system on a Semi-submersible installation.

Applies To

Personnel who are required to hold a valid certificate in *Stability and Ballast Control*.

Note: Individuals who do not complete Stability and Ballast Control - Recurrent prior to the expiration of their Stability and Ballast Control Certificate are required to repeat the minimum (9) day course. However, because of the intermittent nature of employment and course scheduling, a reasonable extension may be permitted upon review and approval by the training institute. In order for the training institute to consider a request for extension, the following criteria must be provided, at a minimum:

1. *Written request by the Operator submitted to the training institute before expiry of the certificate.*
2. *Reasonable rationale for the request, including evidence of attempts made to complete training required before certificate expiry (or explanation provided for why this was not possible).*
3. *Before the expiry of the certificate, the individual must be registered in an upcoming refresher course.*

Course Duration

Minimum of two (2) days

Prerequisites

A course of at least five (5) days in duration in advanced stability concepts and ballast control operations involving a Semi-submersible installation.

Renewal

Three (3) years

Course Content

To meet requirements under *IMO A1079(28) for the Recommendations for the Training and Certification of Personnel on MOU's*. Recurrent training in stability and ballast control must include a combination of classroom instruction and intensive training on a ballast control simulator to ensure continued competence in the operation of a ballast control system during routine and emergency situations.

6.21 Stability of Self-Elevating Units

Course Objectives

To provide designated Personnel with a thorough understanding of the principles, calculations and practices of stability and marine operations unique to self-elevating installations in the floating and elevated modes.

Applies To

Offshore Installation Managers, Barge Supervisors and Assistant Barge Supervisor assigned to a self-elevating installation.

Course Duration

Minimum of four (4) days

Prerequisites

None

Renewal

Three (3) years as outlined in section 6.22 Stability of Self-Elevating Units – Recurrent.

Course Content

- Definitions and general understanding of stability concepts;
- Afloat versus elevated stability;
- Location and control of the centre of gravity;
- The inclining experiment;
- Vessel's reaction under tow;
- Free surface effect;
- Damage control and stability;
- Soil and site analysis;
- Environmental forces; and
- Leg reactions.

Note: Course curriculum must include the use of a computer-based simulator capable of simulating the response of a self-elevating installation Marine Installation or Structure to various loading and environmental forces while in the floating and elevated modes.

6.22 Stability of Self-Elevating Units - Recurrent

Course Objectives

To provide designated Personnel with recurrent training that ensures a controlled level of knowledge and competence is maintained with respect to stability and marine operations unique to self-elevating installations in both the floating and elevated modes.

Applies To

Personnel who are required to hold a valid certificate in *Stability of Self-Elevating Units*.

Course Duration

Minimum of two (2) days

Prerequisites

Previous training of at least four (4) days in duration in stability and marine operations relating to self-elevating units.

Course Content

Course curriculum must include a review of basic and advanced stability theory as well as simulator training involving the following:

- Preloading analysis;
- Elevating and lowering;
- Field transit – afloat stability analysis;
- Storm standby – elevated stability analysis;
- Different types of punch-through;
- Collision under tow; and
- Response to heavy weather under tow.

6.23 Transportation of Dangerous Goods (TDG)

Course Objectives

To enable participants to apply the requirements set out in the IATA Dangerous Goods Regulations and the IMDG Code respecting the transport of dangerous goods by air and sea.

Applies To

Personnel having responsibility for the preparation and/or documentation of dangerous goods for shipment by air or sea.

Course Duration

IATA TDG – Air: Three (3) days

IMDG TDG – Marine: Two (2) days

Prerequisites

None

Renewal

IATA TDG – Air: Two (2) years, Two (2) day course

IMDG TDG – Marine: Three (3) years, One (1) day course

Course Content

- Application of IATA Regulations, IMDG Code, and TDG Regulations and legal aspects;
- Shipper, carrier and receiver responsibilities;
- Identification of dangerous goods which are:
    - forbidden for air transport,
    - permitted as air or marine cargo under the Regulations/Code, or
    - exempt from the IATA Regulations, IMDG Code, and/or TDG Regulations in whole or in part.
- IATA/IMDG/TDG classification of dangerous goods;
- Application of information contained in the alphabetical/numerical list of dangerous goods;
- General and specific packing requirements;
- Marking and labeling a dangerous goods package;

- Storage and segregation of dangerous and incompatible goods; and
- Completion of documentation.

7 Offshore Well Control; Drilling and Offshore Well Control; Intervention

The *IOGP) Report 476 – Recommendations for enhancement to well control training, examination and certification was updated in April 2023.* This report was reviewed and considered in the development of the structure of well control training described herein.

The structure having various levels of well control training was developed to enable participants to receive *role-specific* training to develop the precise skills and competency needed, and knowledge of equipment and techniques necessary for improved well control preparedness and performance in their particular role. Well control training covers the full life cycle of the well including (drilling, completion, intervention/ workover and plug and abandonment).

Well control assurance requires that primary well control is maintained and, when this is not the case, the situation is properly addressed, and the status of the well is safely returned to normal. The establishment of the following five levels of training will improve well control assurance through the full life cycle of the well.

Level 1 – Awareness: This level of training is intended to provide general awareness of well control equipment and activities throughout the life cycle of a well for any personnel involved in well operations.

Level 2 – Operations Support Team: This level of training is intended to provide a foundation level of well control knowledge for any Personnel that could influence well control operations from a monitoring, observing, or reporting perspective.

Level 3 – Equipment Operator: This level of training is intended to provide a fundamental level of well control knowledge and skills for any Personnel that operate well control equipment and take direct corrective first action in responding to a well control event.

Level 4 – Supervisory: This level of training is intended to provide a supervisory level awareness of well control knowledge and skills for any Personnel that conduct oversight, of well activities and who analyze, anticipate, plan, and verify next steps to be taken in a well control event.

Level 5 – Enhanced: This level of training is intended to provide an alternative to individuals to increase well control knowledge while not repeating the same course over and over. It should contain scenario-based training and updates on recent events, as well as encourage participants to share their well control experiences.

Note: Refer to Appendix F for the Well Control Training Matrix and requirements for positions currently not listed in the COP TQOP.

The Level 1 – Awareness should include high level discussion on the following key topics:

- The life cycle of a well;
- Overview of the fluids circulation systems on a drilling rig;
- Pressure management and well barrier concepts;
- Well control during drilling operations;
- Introduction to well intervention operations; and
- Pressure control during well intervention.

Key learning topics for levels 2- 4 well control courses for drilling operations will include (at various depths of investigation per level as defined by IADC and/or IWCF course curriculum):

- Well control concepts, (pressures, U-tubing, balanced/unbalanced, primary and secondary well control, etc.);
- Well barriers;
- Kicks (causes of kicks, types of influx, abnormal pressure warning signs, and kick detection);
- Gas characteristics and behavior, including fluid migration;
- Well control methodologies (constant bottom-hole pressure well control methods, volumetric, lubricate and bleed);
- Well control during casing and cementing operations;
- Well control drills and risk management;
- Fluid management and circulation system;
- Shut in procedures and post shut in monitoring;
- Well control equipment;
- Subsea well control (required for Subsea Endorsement);
- Government, industry and company rules, orders and policies; and
- Simulator exercises for levels 3 and 4.

Key learning topics for levels 2 – 4 well control courses for intervention/workover operations will include (at various depths of investigation per level as defined by IADC or IWCF course curriculum):

- Well control concepts (Pressures, U-tubing, balanced/unbalanced, primary and

secondary well control);
- Well barriers;
- Influx discussion including causes of influx, types of influx, abnormal pressure warning signs, and kick detection;
- Gas characteristics and behavior, including fluid migration;
- Well control drills and risk management;
- Well control methodologies (constant bottom-hole pressure methods, circulatory well control pressure methods, stripping and snubbing, and bullheading);
- Well control during coil tubing and wireline operations;
- Lubricating operations;
- Grease injection systems;
- Live well intervention well control;
- Killing a producing well;
- Completion, workover & packer fluids;
- Well control equipment – surface and subsea;
- Fishing operations;
- Hydrates;
- Cold temperature considerations;
- Equalizing pressure safely;
- Pressure/temperature/compressibility effects on liquids/gases;
- Explosive decompression and stored energy hazards;
- Light pipe/wire versus heavy; and
- Government, industry and company rules, orders and policies.

The Level 5 Enhanced well control course content is goal- oriented in nature, to permit Operators the flexibility to tailor this course to best suit their needs for enhanced well control competency. The aim of this course is to improve competency for participants in responding to various well control scenarios that are not commonly covered in the levels 2 – 4 training programs.

Sections 7.1 through 7.1.4 provide further details on Levels 1 through 5 well control training. The table in Appendix F provides a list of training requirements by position for drilling, completions, and intervention/workover, as applicable.

Note: The training levels are role/position specific. Individuals should select the level of training based on their current position. For example, a Driller should be participating in Level 3 – Equipment Operator Training and a Toolpusher should be participating in Level 4 – Supervisory Training. Levels may need to be adjusted depending on responsibilities. The list provided in the table is a guide and not exhaustive.

Note: For well intervention/workover well control training, discipline specific certificates are acceptable (e.g., wireline well control certificate for wireline Personnel).

Note: In the event that a Well Control Certificate expires due to the unavailability of a local well control course, a grace period of up to 90 days may be permitted by the CNSOER or the C-NLOER. This permission would be granted after the relevant Operator has approved the delay in retraining and submitted the Training and Qualifications Exemption Notification Form.

Well Control training is int*ended to be progressed over time for new entrants. Prerequisites are optional as they are not required by the training providers. Prerequisites can be completed if it assists the entrant to obtain the desired level.*

The following well control training levels are listed in this chapter:

7 Offshore Well Control; Drilling and Offshore Well Control; Intervention
7.1 Level 1: Awareness
Course Objectives
7.1.1 Level 2: Operations Support Team
7.1.2 Level 3: Equipment Operator
7.1.3 Level 4: Supervisory
7.1.4 Level 5: Enhanced
7.2 Offshore Well Control Interventions/Workovers

7.1 Level 1: Awareness

Course Objectives

To provide Personnel with a general awareness of offshore well control and the importance of maintaining well control assurance throughout all phases of the well life cycle.

Applies To

All Personnel contributing to a well project who do not directly influence or who are not directly involved in well control planning, maintenance, monitoring, supervising or response activities. Refer to the table in Appendix F for a more complete list of positions.

All Personnel involved in Drilling, Completions or Intervention/Workover planning and operations must possess a valid Well Control Level 1 Certificate or higher.

Course Duration
Two (2) to four (4) hours

Prerequisites
None

Renewal
None

Course Content

This course introduces common well control concepts and terminology and provides awareness of the two well barrier design philosophy discussing the potential consequences for loss of well control on an offshore Marine Installation or Structure.

7.1.1 Level 2: Operations Support Team

Course Objectives

To provide appropriate Personnel with a foundation level knowledge of offshore well control equipment and techniques to enable them to effectively act under directed guidance in support of well control assurance.

Applies To

All well-site operations team Personnel inclusive of support services that are not directly operating the well control equipment but have the potential to influence well control assurance via monitoring, observing, reporting or detection activities. Refer to the table in Appendix F for a more complete list of positions.

Attendees should be the members of the well-site operations team working in roles which could directly contribute to the creation, detection, or control of a well influx or lack of well integrity. Support services should have Level 2 training relevant to their function and its impact on well control assurance. These Personnel must possess a valid IADC or IWCF Well Control Certificate to at least Level 2, from an IADC or IWCF accredited Training Provider.

Course Duration: Two (2) days or online equivalent by an IADC or IWCF accredited training center.

Prerequisites (Optional)
Level 1: Awareness

Note: Previously completed equivalent or higher level well control training supersedes the prerequisite(s).

Renewal
Every 5 years

Note: The Renewal frequency for OIM on a drilling Marine Installation or Structure only is every 2 years.

Course Content
Training at Level 2 should be tailored to address the specific environment and type of well control equipment (surface well control equipment or subsea well control equipment). The training should be specific to the activity that the individual will be involved in (Drilling and Completions orIntervention/Workover).

7.1.2 Level 3: Equipment Operator

Course Objectives

To provide appropriate Personnel with a fundamental working level knowledge of offshore well control equipment and techniques to maintain well control and to take the correct first actions in response to a well control event.

Applies To

All well-site operations team Personnel inclusive of support services that are required to perform actions to ensure well control assurance or respond to a well control event. Refer to the table in Appendix F for a more complete list of positions.

All well control equipment operators must possess a valid IADC or IWCF Well Control Certificate to at least Level 3, from an IADC or IWCF accredited Training Provider.

Course Duration Five (5) days

Prerequisites (Optional)
Level 2: Operations Support Team

Note: Previously completed equivalent or higher level well control training supersedes the prerequisite(s).

Renewal
Every 2 years

Course Content
Training at Level 3 should be tailored to address the specific environment and type of well control equipment (surface well control equipment or subsea well control equipment). The training should be specific to the activity that the individual will be involved in Drilling and Completion or Intervention/Workover).. The training should teach methods of influx prevention, detection, control, and removal.

Upon completion of the training, certificate holders should be able to perform their role effectively, in particular by identifying anomalies and performing the first actions independently and recognize that they are empowered to do so. They should be able to proactively communicate with all Personnel who provide support to maintaining well control (e.g., Level 2 trained Personnel). The training for drilling activity will also provide

practical hands-on training in proper well control procedures during a simulated influx situation using a certified rig floor simulator.

7.1.3 Level 4: Supervisory

Course Objectives

To provide appropriate Personnel with a supervisory level of knowledge of offshore well control equipment and techniques to provide oversight and ascertain that primary well control is being appropriately managed. Additionally, it will enable Supervisors to analyze anomalous events and plan the appropriate sequence of steps to take following shut in of a well, to minimize impact and return the well to a safe and normal operating well condition.

Applies To

All well-site operations team supervisory Personnel inclusive of support services that are responsible to oversee equipment operators, and to verify well control assurance in maintaining primary well control and also in responding to a well control event. Refer to the table in Appendix F for a more complete list of positions.

All Supervisors of offshore well control equipment operators must possess a valid IADC or IWCF Well Control Certificate to the Supervisory Level from an IADC or IWCF accredited Training Provider.

Course Duration

Minimum Four (4) days

Prerequisites (Optional)

Level 2: Operations Support Team

Renewal

Every two (2) years

Course Content

Training at Level 4 should be tailored to address the specific environment and type of well control equipment (surface well control equipment or subsea well control equipment). The training should be specific to the activity that the individual will be involved in (Drilling and Completions or Intervention/Workovers). The training should teach methods of influx prevention, detection, control and removal.

Upon completion of the training, certificate holder should be able to establish consistent practices to assure continued primary well control and well integrity. When anomalous situations occur, or conditions escalate, they will be able to analyze the situation, develop plans to minimize the impact and recover the situation to the norm. The training for drilling activity will also provide practical hands-on training in proper well control procedures during a simulated influx situation using a certified rig floor simulator.

7.1.4 Level 5: Enhanced

Course Objectives

To provide appropriate Personnel with advanced knowledge in the application of well integrity and well control principles. This training should expand the knowledge of the participant beyond influxes during drilling operations. It should provide an opportunity to build competency in well control assurance and in elements of well control that need to be embedded into well design, well control equipment selection and rig selection process.

This training is not intended to teach theory or replace certificates held by those required to complete Level 3 and Level 4 courses.

For clarity, Levels 1 through 4 courses constitute the minimum requirements to support offshore operations. Level 5 is required for specific positions outlined in sections 8 and 9 of the TQOP. Please refer to the course content section below to determine the best approach for obtaining Level 5.

Applies To
All Personnel with a key role in well design and in situational analysis and decision-making during execution. Refer to the table in Appendix F for a more complete list of positions.

Course Duration
Two (2) days minimum

Prerequisites (Optional)
Level 2: Operations Support Team.
Renewal
Every 5 years; more frequent learning refreshers recommended.

Course Content

This course may be delivered through a variety of means, including classroom lecture, case studies, and/or team-based scenario reviews. This course should focus on identification and response to anomalous situations, including consideration for human factors, and follow through escalation of well control incidents and appropriate responses. Upon completion of the training, participants should be able to analyze the situation and develop plans to minimize the impact and return the situation to normal operations.

Some Training Providers may offer an advanced well control training course which meets the intent of Level 5 requirements, for example, the “IWCF Enhanced” or the “IADC Wellcap Plus” certificates. As well, Operators may provide an in-house competency based session reviewing case studies and scenarios.

Note: Level 5 is not the minimum accredited training to be completed to work in the field. It is not intended to teach theory or replace certificates held by those required to complete Level 3 and Level 4 courses.

7.2 Offshore Well Control; Interventions/Workovers

Course Objectives

- To highlight the significant differences between well control in drilling/completions operations and intervention/workover operations (i.e., where working with pressurized systems is only a possibility versus an absolute certainty).
- To provide Supervisory Personnel with an advanced knowledge of the safe operation of offshore well/pressure control equipment.
- To provide practical training in proper well control procedures for well intervention/workover operations on live wells using slickline, wireline and coiled tubing.
- To increase risk awareness and to present risk mitigation measures.

Applies To

- Personnel on an offshore Marine Installation or Structure who supervise well intervention/workover operations using slickline, wireline snubbing and / or coiled tubing equipment.
- Shore-based Personnel who directly plan and manage these operations.
- Refer to the table in Appendix F for a more complete list of positions and associated levels.

Note: Refer to the table in Appendix F for a more complete list of positions. All personnel identified must possess a valid IADC or IWCF Well Control Certificate from an IADC or IWCF accredited Training Provider. Certificates are to be held at the various levels as described in Sections 7 to 7.1.4 according to the discipline an individual is working in.

Note: Service company Supervisors should hold certificates appropriate to the equipment being operated. Certification in well intervention pressure control in either coiled tubing, wireline, or snubbing is acceptable depending on the equipment that the person is operating. A combined operations certificate is recommended for persons who may be involved in multi-skill operations.

For Operator's representatives, and for Marine Installation or Structure Owner's representatives, combined certification in drilling/completion and well intervention/workovers (coiled tubing, wireline and snubbing) would be appropriate.

Course Duration
Four (4) days (minimum)

Prerequisites
Level 2: Operations Support Team

Renewal
Two (2) years

Course Content

- Live Well Intervention & Workover Well Control;
- Kick Warning Signs and Complications;
- Killing a Producing Well;
- BOP Equipment;
- Pressure versus Force Calculations;
- Pressure Control Concepts;
- Regulations;
- Barrier Concepts;
- Surface and Subsea Equipment;
- Completion, Workover & Packer Fluids;
- Gas Bubble Migration;
- Constant Bottom-hole Pressure Methods;
- Circulatory Well Control Pressure Methods;
- Stripping and Snubbing;
- Bullheading;
- Coil Tubing;
- Wireline Applications;
- Lubricating Safely;
- Grease Injection Systems;
- Fishing Safely;
- Hydrates;

- Cold Temperature Considerations;
- Equalizing Pressure Safely;
- Pressure/Temperature/Compressibility Effects on Fluids/Gases;
- Explosive Decompression and Stored Energy Hazards; and
- Light Pipe/Wire versus Heavy.

8 Drilling Installations – Personnel Qualifications and Training

Offshore drilling installations are required at all times to be under the overall command of an OIM who is knowledgeable in both the industrial and marine requirements necessary for the management and safe execution of an offshore drilling program. In addition, each installation must have a clear chain of command comprised of qualified managers and Supervisors selected for their competence to direct the tasks necessary for a safe and efficient operation.

This section outlines the minimum qualifications, training and, where appropriate, marine and professional certification, required of Operator and drilling contractor Personnel assigned to drilling installations operating in the Atlantic Canada Offshore Area.

It is required that, for each installation that has been flagged, the installation's Flag State minimum manning requirements will be met at all times and documentation available to confirm this. It is further expected that the IMO Resolution entitled *Recommendation for the Training and Certification of Personnel on (MOUs* as adopted in December 2013 (IMO 1079(28)) will be observed by each installation operating in the Atlantic Canada Offshore Area. Documentation, including certificates of proficiency and certificates of competency as per IMO 1079(28), will be readily available to confirm how IMO 1079(28) is met.

It is recognized that, due to organizational structure and variations in the installation's design and complexity, crew position titles and designations may differ from one installation to another.

Additionally, there are various types of mobile offshore units, and it is expected that the certificates, training and experience held by the crew of each installation is specific to the type of mobile offshore unit on which they are operating (e.g. surface, self-elevating, column-stabilized, etc.).

Personnel should hold the highest level of training required for the role they may be assigned (i.e. if someone is being cross trained to fill multiple roles).

Note: This COP TQOP specifies training, recurrent training and specific position qualifications that may differ or be over and above those described within IMO 1079(28).

The following positions are listed in this chapter:

8 Drilling Installations – Personnel Qualifications and Training
8.1 Offshore Installation Manager
8.2 Drilling/Completions Supervisor (Operator)
8.3 Drilling/Completions & Intervention Engineer (DCI)
8.4 Dynamic Positioning Operator (DPO)
8.5 Drilling/Completions & Intervention/Wellwork Superintendent
8.6 Toolpusher
8.7 Driller
8.8 Assistant Driller
8.9 Derrickhand
8.10 Floorhand
8.11 Subsea Engineer
8.12 Barge Supervisor
8.13 Assistant Barge Supervisor
8.14 Ballast Control Operator
8.15 Mud Logging Supervisor (Operator)
8.16 Maintenance Supervisor
8.17 Assistant Maintenance Supervisor
8.18 Rig Mechanic
8.19 Rig Electrician
8.20 Electronics Technician
8.21 Rig Welder
8.22 Crane Operator
8.23 Roustabout
8.24 Storekeeper
8.25 Medic
8.26 Radio Operator
8.27 Environmental Observer
8.28 Chief Steward
8.29 Intervention/Workover Supervisor (Operator)

8.1 Offshore Installation Manager

The Offshore Installation Manager (OIM) is the person-in-charge of an installation at all times. The OIM is responsible for the safety of onboard Personnel, the integrity of the installation and the conduct of the operation in accordance with applicable regulations and policies.

The OIM should be designated by agreement between the Operator and the owner of the installation. The person so designated must fulfill all the qualification and training requirements for the position and have a letter of appointment issued by the operating company in accordance with the *Accord Acts*.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to competently and safely perform the duties of an OIM. This would normally take 52 weeks on a drilling installation while holding a senior management position.

While acting in a senior management position, the candidate must have demonstrated a general knowledge of the equipment, Personnel and operating practices associated with each offshore operation, and an ability to make sound decisions, particularly in stressful situations. The candidate must also be fully acquainted with the characteristics, capabilities and limitations of the installation, and have a thorough knowledge of the organization and actions to be taken in an emergency.

The candidate must have also completed a person-in-charge assessment and on-the-job training as deemed necessary by the Employer.

MOU Certificates

A person fulfilling the duties of an Offshore Installation Manager shall hold,

- in the case of a floating installation, an Offshore Installation Manager, MOU/Surface Certificate as issued by Transport Canada, or
- in the case of a self-elevating installation, an Offshore Installation Manager, MOU/Self-Elevating Certificate as issued by Transport Canada.

Note: For non-Canadians an equivalent or acceptable level of training and certification will be considered by the offshore Energy Regulator in accordance with the procedure outlined in this document.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Command and Control/Management of Major Emergencies;
- Person-in-Charge Assessment;
- Stability and Ballast Control MOU Surface / Stability and Ballast Control MOU Self-Elevating Units; and
- Offshore Well Control Level 4 with the recertification every 2 years.

8.2 Drilling/Completions Supervisor (Operator)

Alternate Titles: Company Person, Operator's Representative or Client's Representative

The Drilling/Completions Supervisor is the Operator's senior on-site representative. The Drilling/Completions Supervisor is responsible for protecting the Operator's interest in every respect, and for ensuring the operation is carried out in accordance with the approved program, established operating policies and procedures, and legislative requirements applicable to the operating area.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to competently and safely perform the relevant duties of a Drilling/Completions Supervisor. This would normally take 5 years' experience in offshore operations on an installation fitted with similar equipment.

The candidate must have extensive knowledge of offshore drilling/completions operations, including hole problems, borehole pressure dynamics, drilling and well control procedures and related equipment, and recent advancements in drilling completions technology.

The candidate must have a thorough understanding of company policy, emergency response procedures associated with the program and regulatory matters applicable to the operating area.

The candidate must have also demonstrated superior leadership, management and organizational skills, and the ability to deal effectively with emergency situations.

Mandatory Training

- Refer to Section 4 for all required safety training; and
- Offshore Well Control Level 4.
- Level 5 required for lead role.

8.3 Drilling/Completions & Intervention Engineer (DCI)

Alternate Titles: Company Engineer

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to competently and safely perform the duties of a Drilling/Completions & Intervention Engineer. This would normally take 52 weeks of drilling engineering experience involving an offshore program.

The candidate must have a thorough knowledge of offshore drilling, completions or intervention technology, including hole problems, geology, mud rheology, borehole pressure dynamics, well control procedures, and relevant equipment and operations.

The candidate must also be competent in all applicable well related calculations required to safely execute the program.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Onshore Senior Drilling/Completions & Intervention Engineer - Offshore Well Control Level 4 and Level 5; and
- Offshore Engineer - Offshore Well Control Level 2

Both onshore and offshore to have level 4 and/or Interventions/Workovers if experience is greater than 1 yr.

8.4 Dynamic Positioning Operator (DPO)

The Dynamic Positioning Operator is responsible for the operation of the Dynamic Positioning control system and the routine maintenance of the draught, trim and stability of the installation during dynamic positioning operations.

Note 1: Operators must ensure that training, experience, and familiarization practices for DPOs align with the Code on the Standards of Training, Certification and Watchkeeping for Seafarers (STCW Code) and the International Marine Contractors' Association (IMCA) publication M 117 "The Training and Experience of Key DP Personnel" and follow a recognized certification scheme such as that administered by the Nautical Institute.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to competently and safely perform the duties of a Dynamic Positioning Operator. This would normally take 12 weeks as a DPO trainee under the direction and supervision of an experienced DPO.

The candidate must have a good understanding of the marine systems and operations associated with offshore installations and have completed an onboard familiarization training period to gain knowledge of the stability criteria and dynamic positioning system specific to the type of installation to which they are assigned. This installation-specific training must be properly recorded, and the senior marine person must sign a document attesting to the competence of each DPO in the operation of the installation's dynamic positioning system.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

MOU Certificates

A person fulfilling the duties of a Dynamic Positioning Operator shall hold:

- In the case of a Semi-submersible MOU, a Ballast Control Operator Certificate as issued by Transport Canada.

Note: For non-Canadians an equivalent or acceptable level of training and certification will be considered by the offshore Energy Regulator in accordance with the procedure outlined in this document.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Dynamic Positioning Induction/Simulation (Full DPO Certification);
- Stability and Ballast Control (for Semi-submersible MOU's); and
- Offshore Well Control Level 2.

8.5 Drilling/Completions & Intervention/Wellwork Superintendent

Alternate Titles: Senior Toolpusher, Rig Manager, Drilling Section Leader

The Rig Superintendent is the drilling contractor's or installation owner's senior on-site representative. The Rig Superintendent directs the work of the offshore crew and is responsible for the safe operation of the installation's drilling rig or intervention kit,subject only to the advice and direction received from the person-in-charge (OIM), if the individual does not also hold that designation, and from the Operator's Drilling/Completions & Intervention Supervisor under the terms of the drilling contract.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Rig Superintendent competently and safely. This would normally take 52 weeks on an installation fitted with similar equipment while holding a supervisory or management position.

The candidate must have demonstrated superior safety and managerial skills, mechanical aptitude, and technical capability.

The candidate must have a thorough knowledge of the policies, procedures, and equipment in their areas of responsibility, including those relating to firefighting lifesaving and evacuation, and emergency response.

The candidate must also be knowledgeable of the client's operating policies and procedures and have liaised with client representatives in matters relating to the program.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training; and
- Offshore Well Control Level 4 and Level 5.

8.6 Toolpusher

Alternate Titles: Assistant Rig Superintendent, Nightpusher, Toolpusher and Assistant Rig Manager.

The Toolpusher oversees the work of the drilling crew and is responsible for ensuring that all aspects of the drilling operation are being carried out in a safe and efficient manner.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Toolpusher competently and safely. This would normally take 52 weeks on an installation fitted with similar equipment while holding a supervisory or management position.

While acting in the position of Driller, the candidate must have demonstrated superior safety and supervisory skills, mechanical aptitude, and technical capability.

The candidate must have a thorough knowledge of the policies, procedures, and equipment in their areas of responsibility, including those relating to firefighting, lifesaving and evacuation, and emergency response.

The candidate must also be knowledgeable of the client's operating policies and procedures and have liaised with client representatives in matters relating to the drilling program.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Toolpusher: Offshore Well Control Level 4.

8.7 Driller

The Driller supervises the work on the drill floor and is responsible for the operation of the rig floor equipment, the mud circulating system and blow out prevention/well control equipment. The Driller is directly responsible for overseeing the actions of the drill crew and is the first line of defense in the prevention of a well control incident.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Driller competently and safely. This would normally take 52 weeks as an Assistant Driller on a an installation fitted with similar equipment.

While acting in the position of Assistant Driller, the candidate must have demonstrated an ability to work independently under general supervision, exercise leadership and set a safe work example for subordinate Personnel.

The candidate must have a thorough knowledge of the equipment, materials, and procedures necessary to construct safely and efficiently a well, and an ability to recognize the signs and symptoms of an actual or potential downhole problem and react appropriately to minimize or prevent a major incident.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training; and
- Offshore Well Control Level 3.

8.8 Assistant Driller

The Assistant Driller assists the Driller in the supervision of drill floor operations and, from time to time, may relieve the Driller in the performance of his duties.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of an Assistant Driller competently and safely. This would normally take 26 weeks of applicable experience on an installation fitted with similar equipment.

While acting in the position of Derrickhand, or in a supervisory position, the candidate must have demonstrated an ability to work independently under general supervision, exercise leadership and set a safe work example for subordinate Personnel.

The candidate must have a thorough knowledge of drill floor operations, including the operation of all pipe handling equipment and tools.

The candidate must also be competent in the performance of the functions of the Driller, and able to recognize the signs and symptoms of an actual or potential downhole problem and react appropriately to minimize or prevent a major incident.

The candidate must have also completed on-the-job training as deemed necessary by the Employer. This training shall include the proper use and care of fall protection equipment.

Mandatory Training

- Refer to Section 4 for all required safety training; and
- Offshore Well Control Level 3.

8.9 Derrickhand

The Derrickhand is responsible for the operation, monitoring and maintenance of all drilling fluid systems and associated equipment. The Derrickhand also works aloft in the derrick and/or at the rig floor piperacker console during the running and retrieval of drill string sections in and out of the well bore.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Derrickhand competently and safely. This would normally take 26 weeks as a Floorhand on an installation fitted with similar equipment.

While acting in the position of Floorhand, or in a supervisory position, the candidate must have demonstrated the ability to work independently under general supervision.

The candidate must have a knowledge of the operation and routine maintenance of drilling fluid monitoring, circulating and conditioning equipment, and the equipment used to rack drill pipe in the derrick.

The candidate must also be competent in the performance of the functions of the Driller, and able to recognize the signs and symptoms of an actual or potential downhole problem and react appropriately to minimize or prevent a major incident.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

This training shall include the proper use and care of fall protection equipment.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Fall Protection Training; and
- Offshore Well Control Level 2.

8.10 Floorhand

Alternate Titles: Roughneck, and Rotary Helper

The Floorhand is responsible for the operation and routine maintenance of all drill string handling and hoisting equipment.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Floorhand competently and safely. This would normally take 26 weeks as a Roustabout on an installation fitted with similar equipment, or 26 weeks as a Floorhand/Derrickhand on a land-based rig (coupled with appropriate orientation and competency assessment on the installation's equipment; or completion of a formal Petroleum Engineering program (coupled with appropriate orientation and competency assessment on the institutions equipment).

Based upon formal education, on-the-job experience, or previous work experience, the candidate must be able to demonstrate the following competencies:

- demonstrate a clear understanding of the role and responsibilities of a floorhand and
- perform basic floorhand tasks safely and competently to the satisfaction of the Employer.

The candidate must have a general understanding of drill floor operations, including the operation of all pipe handling equipment and tools.

The candidate must have knowledge of offshore well control equipment and techniques and have adequately demonstrated this, through on-the-job experience, reacting appropriately in a well control situation or simulated well control scenario.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Fall Protection Training; and
- Offshore Well Control Level 2.

8.11 Subsea Engineer

Alternate Titles: Subsea Supervisor

The Subsea Engineer is responsible for the assembly, maintenance, testing and repair of the subsea BOP stack and related well control equipment.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Subsea Engineer competently and safely. This would normally take 26 weeks as a Subsea Engineer trainee on an installation fitted with similar equipment.

While acting in the position of Subsea Engineer Trainee, the candidate must have demonstrated mechanical aptitude, technical capability and an ability to work independently under general supervision.

The candidate must have a thorough knowledge of the operation of all subsea equipment and ancillary systems, including subsea-running tools, and be familiar with company and regulatory requirements for testing and maintaining subsea systems components.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training; and
- Offshore Well Control Level 2 or above.

8.12 Barge Supervisor

Alternate Titles: Rig Captain, Barge Master, Marine Section Leader

The Barge Supervisor is in charge of, and responsible for, all marine aspects of the operation and marine safety management, subject only to the advice and direction he receives from the person-in-charge (OIM) if he does not also hold that designation.

Qualifications

The candidate must have adequately demonstrated to his Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Barge Supervisor competently and safely. This would normally take 52 weeks as an Assistant Barge Supervisor or Ballast Control Operator on an installation fitted with similar equipment.

While acting in the position of Assistant Barge Supervisor, the candidate must have demonstrated mechanical aptitude and technical capability, as well as an ability to work independently, exercise leadership, and provide a safe work example for onboard Personnel.

The candidate must have a general knowledge of all operations including those connected with drilling a well, and a thorough knowledge of company policies and procedures as well as the requirements of local regulatory bodies and legislation.

The candidate must also have a thorough understanding of the marine systems and operations associated with the installation and have completed an onboard familiarization training period to gain knowledge of the stability criteria and ballast system specific to the type of installation to which they are assigned. This installation-specific training must be properly recorded, and the installation owner must sign a document attesting to the competence of each Barge Supervisor in the operation of the installation's ballast system.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

MOU Certificates

A person fulfilling the duties of a Barge Supervisor shall hold,

- in the case of a floating installation, a Barge Supervisor, MOU/Surface Certificate as issued by Transport Canada, or
- in the case of a self-elevating installation, a Barge Supervisor, MOU/Self-Elevating Certificate as issued by Transport Canada.

Note: If the installation is self-propelled, STCW licensing for the minimum manning positions must be met. In this case: STCW II/2.

Note: For non-Canadians an equivalent or acceptable level of training and certification will be considered by the offshore Energy Regulator in accordance with the procedure outlined in this document.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Stability and Ballast Control MOU Surface / Stability and Ballast Control MOU Self-Elevating Units; and
- Offshore Well Control Level 2.

8.13 Assistant Barge Supervisor

Alternate Titles: Watchkeeping Mate, Stability Technician, Watchstander

The Assistant Barge Supervisor provides assistance in all marine aspects of the operation and in the management of marine safety. In the case of a floating installation, the Assistant Barge Supervisor is responsible for ensuring that the position, stability, and draught of the installation is maintained within prescribed limits. In some organizations, the Assistant Barge Supervisor may also fulfill the duties of a Ballast Control Operator.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of an Assistant Barge Supervisor competently and safely. This would normally take 39 weeks of service as a deck Rating, Engine-room Rating or assistant, or Ballast Control Operator on an installation fitted with similar equipment.

The candidate must have a good understanding of the marine systems and operations associated with an installation and have completed an onboard familiarization training period to gain knowledge of the stability criteria and ballast system specific to the type of Marine Installation or Structure to which they are assigned. This installation-specific training must be properly recorded, and the senior marine person must sign a document attesting to the competence of each Assistant Barge Supervisor in the operation of the installation's ballast system.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Stability and Ballast Control MOU Surface / Stability and Ballast Control MOU; Self-Elevating Units; and
- Offshore Well Control Level 2.

8.14 Ballast Control Operator

Alternate Titles: Control Room Operator

The Ballast Control Operator is responsible for the operation of the ballast system on a floating Marine Installation or Structure and for maintaining, within prescribed limits, the stability, draught and trim of the installation.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Ballast Control Operator competently and safely. This would normally take 12 weeks as a Ballast Control Operator Trainee doubled up on watch with an experienced Ballast Control Operator.

The candidate must have a good understanding of the marine systems and operations associated with the installation and have completed an onboard familiarization training period to gain a knowledge of the stability criteria and ballast system specific to the type of installation to which they are assigned. This installation-specific training must be properly recorded, and the senior marine person must sign a document attesting to the competence of each Ballast Control Operator in the operation of the installation's ballast system.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

MOU Certificates

A person fulfilling the duties of a Ballast Control Operator shall hold,

- In the case of a floating installation, a Ballast Control Operator Certificate as issued by Transport Canada.

Note: For non-Canadians an equivalent or acceptable level of training and certification will be considered by the offshore Energy Regulator in accordance with the procedure outlined in this document.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Stability and Ballast Control MOU Surface / Stability and Ballast Control MOU Self-Elevating Units for floating installations; and
- Offshore Well Control Level 2.

8.15 Mud Logging Supervisor (Operator)

Alternate Titles: Senior Data Engineer

The Mud Logging Supervisor works under the direction of the Drilling Supervisor (Operator) and provides technical support to the Drilling Supervisor, the rig Drilling Crew and the company engineers and geologists. The Mud Logging Supervisor is responsible for the operation of the mud logging unit including the real time monitoring and recording of drilling fluid data and contents, drilling parameters and wellbore information.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Mud Logging Supervisor competently and safely. This would normally take a minimum of 52 weeks of experience in offshore drilling operations.

The candidate must have a thorough knowledge of offshore drilling operations, including hole problems, geology, borehole pressure dynamics, well control procedures, and drilling equipment and operations.

The candidate must be able to effectively liaise with both drilling contractor Personnel and company (Operator) Personnel, and to have the ability to deal effectively with emergency situations.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Mud Logging Crew: Offshore Well Control Level 2; and
- Mud Logging Supervisor: Offshore Well Control Level 3.

8.16 Maintenance Supervisor

Alternate Titles: Chief Engineer, First Engineer, Technical Section Leader

The Maintenance Supervisor is responsible for the operation, testing, inspection and maintenance of all mechanical and electrical equipment and machinery as specified by the owner of the installation.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Maintenance Supervisor competently and safely. This would normally take 52 weeks on an installation fitted with similar equipment while holding an applicable supervisory position.

While acting in the position of Assistant Maintenance Supervisor, the candidate must have demonstrated an ability to work independently under general supervision, exercise leadership and provide a safe work example for subordinate Personnel.

The candidate must have a thorough knowledge of the mechanical and electrical equipment associated with offshore installation, including the operation and maintenance of pumping and piping systems, associated control systems and, if appropriate, jacking systems.

The candidate must be able to demonstrate a thorough knowledge of the theory and practice associated with the Marine Installation or Structure and maintenance of electrical equipment in hazardous areas as defined by applicable legislation, codes and standards.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

MOU Certificates

A person fulfilling the duties of a Maintenance Supervisor shall hold,

- in the case of a floating installation, a Maintenance Supervisor, MOU/Surface Certificate as issued by Transport Canada, or
- in the case of a self-elevating installation, a Maintenance Supervisor, MOU/Self-Elevating Certificate as issued by Transport Canada.

Note: For non-Canadians an equivalent or acceptable level of training and certification will be considered by the Energy Regulator in accordance with the procedure outlined in this document.

Note: If the installation is self-propelled, STCW licensing for the minimum manning positions must be met. In this case: STCW II/2:

Mandatory Training

- Refer to Section 4 for all required safety training; and
- Offshore Well Control Level 2.

8.17 Assistant Maintenance Supervisor

Alternate Titles: Second Engineer, Assistant Engineer, Senior Mechanic, Chief Mechanic, Watchkeeping Engineer, Assistant Technical Section Leader

The Assistant Maintenance Supervisor provides support in the operation, testing, inspection and maintenance of the installation's mechanical and electrical systems.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to competently and safely perform the duties of a Assistant Maintenance Supervisor. This would normally take 26 weeks as a Rig Mechanic on an installation fitted with similar equipment.

While acting in the position of Rig Mechanic, the candidate must have demonstrated mechanical aptitude, technical capability, and an ability to work independently under general supervision.

The candidate must have a general knowledge of the mechanical and electrical equipment associated with the installation and be the holder of a Fourth-Class Engineer, Motor ship Certificate on a floating installation.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training; and
- Offshore Well Control equivalent to Level 1 within the first six months of assuming the role.

8.18 Rig Mechanic

Alternate Titles: Mechanic, Watchkeeping Engineer

The Rig Mechanic is responsible for maintaining the operational integrity of all-mechanical systems and equipment on the installation.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Rig Mechanic competently and safely. This would normally take 26 weeks as a motorman, Engine-room Rating or engine-room assistant on a Motor ship or an installation of not less than 225 kW propulsive power.

The candidate must have a thorough knowledge of the installation's mechanical systems, including drilling, deck, and emergency equipment.

Also, the candidate must have successfully completed a course in practical skills for marine engineers or in diesel mechanic at a recognized training institution or have an equivalent combination of experience and training.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training; and
- Offshore Well Control Level 1 within the first six months of assuming the role.

8.19 Rig Electrician

Alternate Titles: Electrician

The Rig Electrician is responsible for maintaining the operational integrity of all-electrical systems and equipment on the Marine Installation or Structure.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Rig Electrician competently and safely. This would normally take 26 weeks as an Electrical Technician on an installation fitted with similar equipment.

The candidate must have a thorough knowledge of the installation's electrical systems and equipment (including all electrical power generation sources, power distribution equipment, hazardous area electrical equipment, and refrigeration and air conditioning systems) and be able to perform diagnostic tests and troubleshoot system faults and failures down to the component level.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

As well, the candidate must have successfully completed an appropriate course in industrial electrical technology at a recognized training institution, and apprenticeship experience and/or additional training to the equivalent of that required for a Canadian inter-provincial journeyman's certificate.

An individual employed in the position of Rig Electrician shall hold:

- Inter-Provincial Journeyman's Certificate (Electrical) or Diploma Technology in a related field.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Arc flash training as outlined in section6.10 of the COP TQOP;
- Hazardous Area Equipment Training; and
- Offshore Well Control Level 1 within the first six months of assuming the role.

8.20 Electronics Technician

The Electronics Technician is responsible for maintaining the operational integrity of electronics systems and equipment related to drilling operations on the installation.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, the ability to competently and safely perform the duties of an Electronics Technician. This would normally take 12 weeks on an installation or in a similar industrial setting performing electrical maintenance and repair work.

The candidate must have successfully completed a course in electronics technology at a recognized training institution followed by additional training and/or experience involving AC/DC drive systems, SCR's and PLC controls.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Arc flash training as outlined in section 6.10 of the COP TQOP;
- Hazardous Area Equipment Training; and
- Offshore Well Control Level 1 within the first six months of assuming the role.

8.21 Rig Welder

The Rig Welder is responsible for the repair, fabrication and modification of the installation's metal structures.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Rig Welder competently and safely. This would normally take 52 weeks as a welder in an industrial setting performing similar work.

The candidate must have a thorough understanding of the applicable codes and regulations relating to the construction of metal structures, as well as company policies with respect to hot work and confined spaces. The candidate must have successfully completed welding certification training at a recognized training institution.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training; and
- Offshore Well Control Level 1 within the first six months of assuming the role.

8.22 Crane Operator

Section 122 of the *OHS Regulations* apply.

Alternate Titles: Crane Driver, Roustabout Supervisor

The Crane Operator directs the work of the Roustabouts and is responsible for the operation and minor maintenance of the installation's pedestal-mounted revolving cranes.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Crane Operator competently and safely. This would normally take 26 weeks as an assistant crane Operator on an installation fitted with similar equipment.

While acting in the position of Assistant Crane Operator, the candidate must have demonstrated an ability to work independently under general supervision, exercise leadership and provide a safe work example for subordinate Personnel.

The candidate must have a thorough knowledge of the operating and maintenance procedures necessary for the safe operation of the cranes and have successfully completed theoretical and practical training at a recognized training institution, or from a Qualified instructor, in accordance with API RP 2D-2 – Training for Offshore Pedestal-Mounted Crane Riggers, Operator and Inspectors, current edition.. www.api.org.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Rigger Training;
- Banksman Training; and
- Offshore Well Control Level 1 within the first six months of assuming the role.

8.23 Roustabout

The Roustabout is responsible for the safe and proper rigging and slinging of all loads lifted and moved by the pedestal-mounted revolving cranes and other materials handling equipment.

The Roustabout may also be assigned to load and offload materials and supplies from helicopters and, in some organizations, may perform routine equipment maintenance and general upkeep of the installation.

Qualifications

This is an entry-level position.

The candidate must complete on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Rigger Training;
- Banksman Training;
- Fall Protection Training; and
- Offshore Well Control Level 1.

8.24 Storekeeper

Alternate Titles: Storesman, Warehouseman, Materialsman

The Storekeeper is responsible for ordering equipment and parts as directed, and for maintaining adequate inventory and inventory control.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to competently and safely perform the duties of a Storekeeper. This would normally take 26 weeks employed on a drilling installation or in a similar industrial setting.

The candidate must have a general understanding of the equipment and materials associated with offshore drilling operations and is knowledgeable of the procedures and information necessary to complete shipping manifests, including documentation relating to the shipment of hazardous cargo by air and sea.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Transportation of Dangerous Goods (Marine (IMDG); and
- Transportation of Dangerous Goods (Air) IATA.

8.25 Medic

Alternate Titles: Offshore Health Advisor, Platform Nurse

The medic is primarily responsible for providing health services and first aid to Personnel on the installation.

As outlined in section 33 (3) of the *OHS Regulation* "The Employer must not assign to the medic any other duties that will interfere with the prompt and adequate provision of first aid and medical care."

Qualifications

The candidate must have demonstrated to the Employer, through on-the-job training or a previous assignment, an ability to perform the duties of a medic.

The candidate must have experience with medical evacuation of Personnel by helicopter, fixed-wing aircraft or other support craft, and be the holder of an Advanced Cardiac Life Support Certificate, or basic cardiac life support instructor's certificate issued by an entity that bases its training on International Liaison Committee on Resuscitation guidelines.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

An individual employed in the position of medic shall hold either:

- a license to practice medicine in Canada and have at least two years' clinical experience in intensive care or emergency practice, or
- a Registered Nursing Certificate issued by a provincial regulatory body and have at least two years' clinical experience in intensive care or emergency practice, or
- a Paramedic III (P3) Certificate or critical care paramedic certificate issued by a college accredited by the Canadian Medical Association and have at least three years' experience as an advanced life support provider.

Mandatory Training

- Refer to Section 4 for all required safety training.

8.26 Radio Operator

The Radio Operator is responsible for marine, aeronautical and ship-to-shore communications. The Radio Operator monitors and communicates with vessels and aircraft in the drilling area, performs official Global Maritime Distress and Safety System (GMDSS) functions and executes critical emergency response tasks.

Qualifications

The candidate must have demonstrated to the Employer, through on-the-job training or a previous assignment, an ability to perform the duties of a Radio Operator.

The candidate must have a general understanding of marine operations associated with offshore drilling installations and support craft and be proficient in the use of the radio and satellite telecommunications equipment on the installation, including computer applications for helicopter flight and vessel tracking. Where duties include responsibility for keeping a radar watch, the individual must have completed appropriate training, and on floating installations be under the supervision of someone with the requisite marine certification.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

An individual employed in the position of Radio Operator shall hold:

- General Operator's Certificate endorsed for GMDSS issued by Industry Canada;
- a GMDSS Certificate from an accredited GMDSS training institution; and
- aviation and marine weather observer certification from a recognized training institution or Qualified instructor.

Mandatory Training

- Refer to Section 4 for all required safety training;
- A Restricted Aeronautical Radio License for individuals who communicate with aircraft as per Industry Canada requirements; and
- Offshore Well Control Level 1.

8.27 Environmental Observer

Alternate Title: Ice/Weather Observer

The Environmental Observer is responsible for making, recording, and reporting aviation and marine weather and oceanographic observations, and the provision of ice protection through the monitoring of the status and movement of all ice that may encroach the operating area.

Note: the qualifications/training and requirements may be assumed by another position as defined by the Operator.

Qualifications

The candidate must have demonstrated to the Employer, through on-the-job training or a previous assignment, an ability to perform the duties of an Environmental Observer.

The candidate must have successfully completed approved training dealing with the procedures for making, recording, and reporting weather and ice observations. Also, the candidate must be familiar with the operation of the installation's radar equipment and have a thorough knowledge of the Operator's ice management procedures. Where duties include responsibility for keeping a radar watch, the individual must have completed appropriate training, and on mobile installations be under the supervision of someone with the requisite marine certification.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

The *Guidelines for Framework Regulations* identify the appropriate codes and procedures to be used for taking meteorological observations on an installation. Environmental Observers are required to be trained and/or certified in accordance with the *Guidelines for Framework Regulations* and the offshore Energy Regulator will accept delivery of this training by any recognized training institution or Qualified instructor.

- Refer to Section 4 for all required safety training.

Note: On a Marine Installation or Structure with no Environmental Observer, a designated person must have the qualifications of an Environmental Observer in addition to their regular duties.

8.28 Chief Steward

Alternate Titles: Accommodations Coordinator

The Chief Steward is responsible for the accommodations and catering services on the installation.

Qualifications

The candidate must have demonstrated to the Employer, through on-the-job training or a previous assignment, an ability to perform the duties of a Chief Steward.

The candidate must have experience with accommodations and catering management. The candidate should be familiar with safe food handling practices and the sanitation guidelines that are required for a food preparation and serving area. Also, the candidate should be knowledgeable in the various areas of accommodation management.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

An individual employed in the position of Chief Steward shall hold:

- Safe Food Handling Practices

Mandatory Training

- Refer to Section 4 for all required safety training.

8.29 Intervention/Wellwork Supervisor (Operator)

Alternate Titles: Well Supervisor; Well Services Supervisor; Completion Supervisor

The Intervention Supervisor is the focal point for coordination of completion and intervention operations in the post-drilling phase. The individual is responsible for the safe and efficient control of completions and intervention work, administration, and planning. For the purpose of this document intervention also includes completion and workover activities.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to competently and safely perform the duties of an Intervention Supervisor.

The candidate must demonstrate an ability to work independently under general supervision, exercise leadership and provide a safe work example for subordinate Personnel. The candidate should have thorough knowledge of the completion and intervention systems on the installation and be able to prioritize planned and unplanned work. They should also demonstrate a thorough knowledge of planning and executing both standard and simultaneous operations where completions activities are undertaken in close proximity to drilling and work-over activities.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training; and
- Offshore Well Control – Level 4 and Interventions/Workovers

9 Production Installations - Personnel Qualifications and Training

Offshore production installations are required at all times to be under the overall command of an Offshore Installation Manager (OIM) who is knowledgeable in both the industrial and marine requirements necessary for the management and safe execution of an offshore production program. In addition, each production installation must have a clear chain of command comprised of qualified managers and Supervisors selected for their competence to direct the tasks necessary for a safe and efficient operation.

This section outlines the minimum qualifications, training and, where appropriate, marine and professional certification, required of Operator and contractor Personnel assigned to production installations operating in the Atlantic Canada Offshore Area.

“It is required that, for each floating production installation, the installation’s Flag State minimum manning requirements will be met at all times and documentation available to confirm this. It is further expected that the International Maritime Organization (IMO) Resolution entitled *Recommendation for the Training and Certification of Personnel on Mobile Offshore Units (MOUs)* as adopted in December 2013 (IMO 1079(28)) will be observed by each floating production installation operating in the Atlantic Canada offshore region. Documentation, including certificates of proficiency and certificates of competency as per IMO 1079(28), will be readily available to confirm how IMO 1079(28) is met.”

For each position, the role description is provided along with details regarding service requirements. It is recognized that, due to organizational structure and variations in production installation design and complexity, crew position titles and designations may differ from one installation to another.

Personnel should hold the highest level of training required for the role they may be assigned (i.e. if someone is being cross trained to fill multiple roles).

The following positions are listed in this chapter:

9 Production Installations - Personnel Qualifications and Training
9.1 Offshore Marine Installation or Structure Manager
9.2 Barge Supervisor
9.3 Offshore Platform Lead
9.4 Production Supervisor
9.5 Marine Coordinator
9.6 Maintenance Supervisor
9.7 Health, Safety and Environment (HS&E) Advisor
9.8 Process Shift Lead
9.9 Control Room Operator
9.10 Process Operator
9.11 Marine Technician
9.12 Mechanical Technician
9.13 Electrical Technician
9.14 Instrument Technician
9.15 Telecoms Technician
9.16 Deck Supervisor
9.17 Crane Operator
9.18 Deck Operator
9.19 Storeman
9.20 Scaffolder
9.21 Welder
9.22 Medic
9.23 Radio Operator
9.24 Environmental Observer
9.25 Chief Steward
9.26 Intervention/Workover Supervisor

9.1 Offshore Marine Installation or Structure Manager

The Offshore Installation Manager (OIM) is the person-in-charge of the installation at all times. The OIM is responsible for the safety of onboard Personnel, the integrity of the installation and the conduct of the operation in accordance with applicable regulations and policies.

The OIM is designated by agreement between the Operator and the owner of the installation. The person so designated must fulfill all the qualification and training requirements for the position and have a letter of appointment issued by the Operator in accordance with the *Accord Acts*.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of an OIM competently and safely. This would normally take 52 weeks in a senior leadership position on a production installation.

The candidate must have an appropriate level of knowledge of drilling and well operations to be able to coordinate production operations with ongoing drilling, completion and work-over activity. On production installations it is expected that an appropriately trained and qualified drilling management team, as specified in Chapter 5 of this document, will report to the Offshore Installation Manager (production) on matters that affect the production installation.

The candidate must have also completed a person-in-charge assessment and on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Command and Control/Management of Major Emergencies;
- Person-in-Charge Assessment;
- Offshore Well Control;
    - Offshore Well Control Level 2 with recertification every 2 years, this would include OIMs on shared drilling/production platforms staffed with Drilling/Completions and Intervention/Wellwork Supervisors
    - Offshore Well Control Level 2 with recertification every 5 years for production facilities with no drilling equipment, such as an FPSO,
- Ballast Control/Stability (for Semi-submersible Production Installations).

9.2 Barge Supervisor

Alternate Titles: Master, Captain; Vessel Lead, Marine Supervisor

The Barge Supervisor is responsible for all-marine activities and offshore services on floating production installations and coordinates the logistics of cargo movements, helicopters, marine activities, and other services while the floating production installation is connected to the mooring system. When disconnected from the mooring system, the Barge Supervisor is in command of the floating production installation and is the overall person-in-charge of the vessel.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Barge Supervisor competently and safely.

While acting in a senior management position, the candidate must have demonstrated a general knowledge of the equipment, Personnel and operating practices associated with operation of the vessel. The individual must have an ability to make sound decisions, particularly in stressful situations and should be able to demonstrate leadership capabilities to the crew.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

An individual employed in the position of Barge Supervisor shall hold:

- Master Near Costal adherence to flag state minimum manning requirements.
- Oil Tanker Endorsement Level 2.
- Current General Operator's Certificate endorsed for Global Maritime Distress and Safety System (GMDSS) issued by Industry Canada: This certificate is subject to a five-year renewal.

Note: If the installation is self-propelled, STCW licensing for the minimum manning positions must be met. In this case: STCW II/2

Mandatory Training

- Refer to Section 4 for all required safety training;
- Marine Emergency Duties (MED) 2;
- Command and Control/Management of Major Emergencies; and
- Offshore Well Control to Level 2 with recertification every 5 years

9.3 Offshore Platform Lead

Alternate Titles: Satellite OIM, Satellite Lead, Intervention Lead

The Offshore Platform Lead is the person-in-charge of the Satellite Platform during interventions to normally unmanned platforms. The person is responsible for the safety of onboard Personnel, the integrity of the Satellite Platform and the conduct of the operation in accordance with applicable regulations and policies.

The Offshore Installation Manager located at the Central Platform designates the Offshore Platform Lead. The person so designated must fulfill all the qualification and training requirements for the position and have a letter of appointment issued by the operating company.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of an Offshore Platform Lead competently and safely. This would normally take 26 weeks in a leadership position on a similar type of installation.

While acting in a leadership position, the candidate must have demonstrated a general knowledge of the equipment, Personnel and operating practices associated with offshore operations and an ability to make sound decisions, particularly in stressful situations. The candidate must also be fully acquainted with the characteristics, capabilities, and limitations of the Platform, and have a thorough knowledge of the organization and actions to be taken in an emergency.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Command and Control/Management of Major Emergencies; and
- Offshore Well Control Level 2 with recertification every 2 years.

9.4 Production Supervisor

Alternate Titles: Operations Lead, Production Lead

The Production Supervisor is the person-in-charge of Production Operations and is responsible for process reliability and availability on the production installation.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Production Supervisor competently and safely. This would normally take 52 weeks of applicable experience on a production installation.

While acting in a senior management position, the candidate must have demonstrated a general knowledge of the equipment, Personnel and operating practices associated with production operations and an ability to make sound decisions, particularly in stressful situations. The candidate must also be fully acquainted with the characteristics, capabilities, and limitations of the operations equipment, and have a thorough knowledge of the organization and actions to be taken in an emergency.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training.
- Command and Control/Management of Major Emergencies; and
- Offshore Well Control Level 2 with recertification every 2 years.

9.5 Marine Coordinator

Alternate Titles: First Officer; Vessel Coordinator; Chief Mate

The Marine Coordinator is responsible for maintaining the night watch on a floating production installation, including the responsibility of all cargo, ballast and marine activities related to the production installation while it is connected to the mooring system. When disconnected from the mooring system, the Marine Coordinator is the Senior Watchkeeping Officer and second in command to the Lead Master.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Marine Coordinator competently and safely.

The candidate must have demonstrated the ability to react effectively in emergency situations and should be able to take command of the vessel should the need arise.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

An individual employed in the position of Marine Coordinator shall hold:

- Master Near Costal adherence to flag state minimum manning requirements
- Oil Tanker Endorsement Level 2
- Current General Operator's Certificate endorsed for GMDSS issued by Industry Canada. This certificate is subject to a five-year renewal.

Mandatory Training

- Refer to Section4 for all required safety training; and
- MED 2.

9.6 Maintenance Supervisor

Alternate Titles: Maintenance Lead, Chief Engineer

The Maintenance Supervisor is responsible for the operation, testing, inspection, and maintenance of all mechanical, electrical and instrumentation equipment related on the production installation.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Maintenance Supervisor competently and safely. This would normally take 52 weeks of leadership/supervisory experience on a production installation.

The person should demonstrate an ability to work independently under general supervision, exercise leadership and provide a safe work example for subordinate Personnel.

The candidate must have a thorough knowledge of the mechanical, electrical and instrumentation equipment associated with the installation, including the operation and maintenance of pumping and piping systems, associated control systems and, if appropriate, jacking systems. The candidate must be able to demonstrate a thorough knowledge of the theory and practice associated with the installation and maintenance of electrical equipment in hazardous areas as defined by applicable legislation, codes, and standards.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

An individual employed in the position of Maintenance Supervisor shall hold:

- Appropriate University Degree or Technical Certificate

Mandatory Training

- Refer to Section 4 for all required safety training.

Note: If the installation is self-propelled, STCW licensing for the minimum manning positions must be met. In this case: STCW II/2

9.7 Health, Safety and Environment (HS&E) Advisor

Alternate Titles: Safety, Health and Environment Lead, Offshore Environment, Health and Safety Advisor

The HS&E Advisor is responsible for providing health, safety and environment expertise to offshore management and the general workforce.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a HS&E Advisor competently and safely.

The candidate must have demonstrated a thorough knowledge of regulatory requirements relating to the offshore work environment. The HS&E Advisor must provide health, safety and environment advice to the leadership and the workforce on areas such as emergency response, incident investigation, safe systems of work and management of risk. The HS&E Advisor will also facilitate visits from regulatory authorities and participate in audit procedures.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training.
- Recognized Auditor Training;
- Incident Investigation Training; and
- Offshore Well Control- Level 1 – no expiry.

Note: Where an HS&E Advisor is not assigned to the installation, a designated person should have Incident Investigation Training.

9.8 Process Shift Lead

Alternate Titles: Production Coordinator

The Process Shift Lead is the focal point for coordination of operations shift activities on the production installation and is responsible for safe and efficient production, control of work administration and planning.

Qualifications

The candidate must have completed a 4th class power engineering, process operations engineering technology diploma or equivalent work in an Operator role on a production facility and demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Process Shift Lead competently and safely.

The candidate must demonstrate an ability to work independently under general supervision, exercise leadership and provide a safe work example for subordinate Personnel. The individual should have thorough knowledge of the process and utility systems on the installation and be able to prioritize planned and unplanned work. They should also demonstrate a thorough knowledge of all Central Control Room panels including the Distributed Control System and Fire and Gas panels.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training.

9.9 Control Room Operator

Alternate Titles: Process Operator (CCR), Process Control Systems Operator

The Control Room Operator is responsible for safely and efficiently operating the installation's production equipment so that production is maximized.

Qualifications

A 4th class power engineering, process operations engineering technology diploma or equivalent work in an Operator role on a production facility.

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Control Room Operator competently and safely.

The candidate must also have a thorough knowledge of the installation's process and utilities systems. The candidate should also demonstrate a thorough knowledge of all Central Control Room panels including the Distributed Control System and Fire and Gas panels and be assessed against established criteria for their abilities to monitor and control production processes, emergency shutdown systems, fire and gas protection systems and other emergency systems as applicable to the control room to which they are assigned. This would normally be achieved through completion of on-the-job or process simulation training utilizing a model of the installation's systems.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4for all required safety training;
- CCR Panel Assessment; and
- Offshore Well Control- Level 1 – no expiry.

9.10 Process Operator

Alternate Titles: Outside Process Operator, Process Operator (Utilities), Production Technician, Utilities Technician

The Process Operator is responsible for safely and efficiently operating and maintaining the Marine Installation or Structure's production and utility systems.

Qualifications

A 4th class power engineering, process operations engineering technology diploma or equivalent work in an Operator role on a production installation.

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Process Operator competently and safely.

The candidate must also have a thorough knowledge of the installation's process and utilities systems and be able to provide maintenance support to various equipment when required.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training.

9.11 Marine Technician

Alternate Titles: Second Mate, Vessel Control Systems Operator

The Marine Technician is responsible for maintaining a safe and effective watch of vessel control systems in the central control room of floating production installations while it is connected to the mooring system. When disconnected from the mooring system, the Marine Technician is responsible for maintaining a navigational bridge watch.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Marine Technician competently and safely.

The candidate must have demonstrated the ability to effectively monitor the various control systems of the vessel. The individual should be familiar with the positioning and mooring systems of the vessel and be able to ensure that the vessel is in a stable position at all times.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

An individual employed in the position of Marine Technician shall hold:

- Watchkeeping Mate (STCW II/1 OOW) Certificate
- Oil Tanker Endorsement Level 1 (Oil and Chemical Tanker Familiarization)
- Current General Operator's Certificate endorsed for GMDSS issued by Industry Canada. This certificate is subject to a five-year renewal.

Mandatory Training

- Refer to Section 4 for all required safety training.

9.12 Mechanical Technician

Alternate Titles: Mechanical Coordinator, Millwright, Mechanical Lead

The Mechanical Technician is responsible for maintaining the operational integrity of mechanical systems and equipment related to producing operations on the installation.

Qualifications

The candidate must have adequately demonstrated to the Employer through on-the-job experience or a previous assignment, the ability to perform the duties of a Mechanical Technician competently and safely. This would require an appropriate Journeyman/Trade Certificate and demonstration of hours worked.

The candidate must also have a thorough knowledge of the installation's mechanical systems that relate to producing operations.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

An individual employed in the position of Mechanical Technician shall hold:

- Inter-Provincial Journeyman's Certificate (Mechanical/Millwright) or Diploma in Mechanical Engineering Technology

Mandatory Training

- Refer to Section 4 for all required safety training.

9.13 Electrical Technician

Alternate Titles: Electrical Coordinator, Electrical Lead

The Electrical Technician is responsible for maintaining the operational integrity of electrical systems and equipment related to producing operations on the installation.

Qualifications

The candidate must have adequately demonstrated to the Employer through on-the-job experience or a previous assignment the ability to perform the duties of an Electrical Technician competently and safely. This would require an appropriate Journeyman/Trade Certificate and demonstration of hours worked.

The candidate must also have a thorough knowledge of the installation's electrical systems that relate to producing operations, including all electrical power generation sources, power distribution equipment, hazardous area electrical equipment, refrigeration, heating, ventilation, and air conditioning systems. The candidate should be able to perform diagnostic tests and troubleshoot system faults and failures down to the component level.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

As well, the candidate must have successfully completed an appropriate course in industrial electrical technology at a recognized training institution, and apprenticeship experience and/or additional training to the equivalent of that required for a Canadian inter-provincial journeyman's certificate.

An individual employed in the position of Electrical Technician shall hold:

- Inter-Provincial Journeyman's Certificate (Electrical) or Diploma in Technology in a related field.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Arc flash training as outlined in section 6.10 of the COP TQOP; and
- Hazardous Area Equipment Training.

9.14 Instrument Technician

Alternate Titles: Instrumentation Coordinator, Instrument Lead

The Instrument Technician is responsible for maintaining the operational integrity of instrumentation systems and equipment related to producing operations on the installation.

Qualifications

The candidate must have adequately demonstrated to the Employer through on-the-job experience or a previous assignment and the ability to perform the duties of an Instrument Technician competently and safely. This would require an appropriate Journeyman/Trade Certificate and demonstration of hours worked.

The candidate must also have a thorough knowledge of the installation's instrumentation systems and equipment.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

An individual employed in the position of Instrument Technician shall hold:

- Inter-Provincial Journeyman's Certificate (Instrumentation) or Diploma in Instrumentation Technology

Mandatory Training

- Refer to Section 4 for all required safety training;
- Arc flash training as outlined in section 6.10 of the COP TQOP; and
- Hazardous Area Equipment Training.

9.15 Telecoms Technician

The Telecoms Technician is responsible for maintaining the operational integrity of telephone and communication systems on the installation.

Qualifications

The candidate must have adequately demonstrated to the Employer through on-the-job experience or a previous assignment the ability to perform the duties of a Telecoms Technician competently and safely.

The candidate should also have a thorough knowledge of the installation's telephone and communication systems, including Public Address and Emergency Alarm systems, radio systems, telecom power and other marine/aeronautical methods of communication.

The candidate must have successfully completed an appropriate course in electronics technology at a recognized training institution.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

An individual employed in the position of Telecoms Technician shall hold:

- Electronics Trade Certificate or equivalent

Mandatory Training

- Refer to Section 4 for all required safety training;
- Arc flash training as outlined in section 6.10 of the COP TQOP; and
- Hazardous Area Equipment Training.

9.16 Deck Supervisor

Alternate Titles: Materials Movement Coordinator, Deck Foreman, Deck Coordinator

The Deck Supervisor is responsible for the safe and efficient movement of materials to and from the installation.

Qualifications

The candidate must have adequately demonstrated, through on-the-job experience or a previous assignment, the ability to perform the duties of a Deck Supervisor competently and safely. This would normally take 52 weeks of experience on an installation.

The Deck Supervisor ensures the proper coordination of the movement of all materials to and from an installation. The candidate must demonstrate the ability to work independently under general supervision, exercise leadership and provide a safe work example for subordinate Personnel.

The Deck Supervisor must have a thorough knowledge of the operating and maintenance procedures necessary for the safe operation of the installation's cranes and other materials handling equipment. The Deck Supervisor may also supervise maintenance activities including scaffolding, painting, rigging, and insulating.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Transportation of Dangerous Goods (Road and Marine) (IMDG);
- Transportation of Dangerous Goods (Air) IATA;
- Rigger Training; and
- Banksman Training.

Note: On some Marine Installation or Structures, the Deck Supervisor could be the Crane Operator. In these cases, the Crane Operator should hold all training certifications required for a Deck Supervisor.

9.17 Crane Operator

Section 122 of the *OHS Regulations* apply.

Alternate Titles: Crane Driver, Roustabout Supervisor

The Crane Operator directs the work of the Roustabouts and is responsible for the operation and minor maintenance of the pedestal-mounted revolving cranes.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Crane Operator competently and safely. This would normally take 26 weeks as an assistant crane Operator on an installation fitted with similar equipment.

While acting in the position of Assistant Crane Operator, the candidate must have demonstrated an ability to work independently under general supervision, exercise leadership and provide a safe work example for subordinate Personnel.

The candidate must have a thorough knowledge of the operating and maintenance procedures necessary for the safe operation on the installation cranes and have successfully completed theoretical and practical training at a recognized training institution, or from a Qualified instructor, in accordance with API RP 2D-2 – Training for Offshore Pedestal-Mounted Crane Riggers, Operator and Inspectors, current edition. *s.* www.api.org.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Rigger Training;
- Banksman Training; and
- Offshore Well Control Level 1 within the first six months of assuming the role.

9.18 Deck Operator

Alternate Titles: Multi Skilled Deck Crew

Qualifications

The Deck Operator is responsible for the safe and proper rigging and slinging of all loads lifted and moved by the pedestal mounted cranes and other materials handling equipment.

The Deck Operator may be assigned to load and off load materials and supplies from helicopters and work in conjunction with the Crane Operator to transfer cargo to and from supply vessels. In some organizations, the Deck Operator may perform routine equipment maintenance and general upkeep of the installation.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Rigger Training;
- Banksman Training; and
- Fall Protection Training.

9.19 Storeman

Alternate Titles: Material Controller, Storekeeper, Warehouseman, Materialsman

The Storeman is responsible for ordering materials and parts as directed and for maintaining adequate inventory and inventory control.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job training or a previous assignment, the ability to perform the duties of a Storeman competently and safely.

The candidate must have a general understanding of the equipment and materials associated with offshore operations and be knowledgeable of the procedures and information necessary to complete shipping manifests, including documentation relating to the shipment of hazardous cargo by air and sea.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training;
- Transportation of Dangerous Goods (Marine) (IMDG); and
- Transportation of Dangerous Goods (Air) IATA.

9.20 Scaffolder

The Scaffolder w is responsible for the assembly and disassembly of all scaffolds required for work on the installation. The Scaffolder is also responsible for the certification of scaffolds on a regular basis.

Qualifications

The candidate must have demonstrated to the Employer, through on-the-job training or a previous assignment, an ability to perform the duties of a Scaffolder.

The candidate must have a thorough understanding of the applicable construction procedures and regulations relating to the erection of scaffolds. The candidate must also have successfully completed a scaffolding training program from a recognized training institution

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

An individual employed in the position of Scaffolder shall hold:

- Scaffolding Certificate (refer to Section 6.18)

Mandatory Training

- Refer to Section 4 for all required safety training; and
- Fall Protection Training.

9.21 Welder

The Welder is responsible for the repair, fabrication and modification of the installation.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of a Welder competently and safely. This would normally consist of experience from an industrial setting in which similar work was performed.

The candidate must have a thorough understanding of the applicable codes and regulations relating to the construction of metal structures, as well as company policies with respect to hot work and confined spaces. The candidate must have successfully completed welding certification training at a recognized training institution.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

An individual employed in the position of Welder shall hold:

- Inter-Provincial Journeyman's Certificate (Welding)

Mandatory Training

- Refer to Section 4 for all required safety training.

9.22 Medic

Alternate Titles: Offshore Health Advisor, Platform Nurse

The medic is primarily responsible for providing health services and first aid to Employees of the Marine Installation or Structure. As outlined in section 33(3) of the *OHS Regulation* "The Employer must not assign to the medic any other duties that will interfere with the prompt and adequate provision of first aid and medical care."

Qualifications

The candidate must have demonstrated to the Employer, through on-the-job training or a previous assignment, an ability to perform the duties of a medic.

The candidate must have experience with medical evacuation of Personnel by helicopter, fixed-wing aircraft or other support craft, and be the holder of an Advanced Cardiac Life Support Certificate, or basic cardiac life support instructor's certificate issued by an entity that bases its training on International Liaison Committee on Resuscitation guidelines.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

An individual employed in the position of medic shall hold either:

- A license to practice medicine in Canada and have at least two years' clinical experience in intensive care or emergency practice, or
- A Registered Nursing Certificate issued by a provincial regulatory body and have at least two years' clinical experience in intensive care or emergency practice, or
- A Paramedic III (P3) Certificate or critical care paramedic certificate issued by a college accredited by the Canadian Medical Association and have at least three years' experience as an advanced life support provider.

Mandatory Training

- Refer to Section 4 for all required safety training.

9.23 Radio Operator

The Radio Operator is responsible for marine, aeronautical and ship-to-shore communications. The Radio Operator monitors and communicates with vessels and aircraft in the drilling area, performs official Global Maritime Distress and Safety System functions and executes critical emergency response tasks.

Qualifications

The candidate must have demonstrated to the Employer, through on-the-job training or a previous assignment, an ability to perform the duties of a Radio Operator.

The candidate must have a general understanding of marine operations associated with offshore drilling installations and support craft and be proficient in the use of the radio and satellite telecommunications equipment on the installation, including computer applications for helicopter flight and vessel tracking. Where duties include responsibility for keeping a radar watch, the individual must have completed appropriate training and on Marine Installation's or Structure's and be under the supervision of someone with the requisite marine certification.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

- Current General Operator's Certificate endorsed for Global Maritime Distress and Safety System (GMDSS) issued by Industry Canada. This certificate is subject to a five-year renewal;
- General Operator's Certificate endorsed for GMDSS issued by Industry Canada;
- a GMDSS Certificate from an accredited GMDSS training institution; and
- aviation and marine weather observer certification from a recognized training institution or Qualified instructor.

Mandatory Training

- Refer to Section 4 for all required safety training.

Note: On a Marine Installation or Structure with no Radio Operator, a designated person must have the qualifications of a Radio Operator in addition to their regular duties.

9.24 Environmental Observer

Alternate Titles: Ice/Weather Observer

The Ice/Weather Observer is responsible for making, recording, and reporting aviation and marine weather and oceanographic observations, and the provision of ice protection through the monitoring of the status and movement of all ice in or approaching the operating area.

Qualifications

The candidate must have demonstrated to the Employer, through on-the-job training or a previous assignment, an ability to perform the duties of an Ice/Weather Observer.

The candidate must have successfully completed approved training dealing with the procedures for making, recording, and reporting weather and ice observations. Also, the candidate must be familiar with the operation of the installation's radar equipment and have a thorough knowledge of the Operator's ice management procedures. Where duties include responsibility for keeping a radar watch, the individual must have completed appropriate training and on floating installations be under the supervision of someone with the requisite marine certification.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

The *Guidelines for Framework Regulations* identify the appropriate codes and procedures to be used for taking meteorological observations on an installation. Environmental Observers are required to be trained and/or certified in accordance with the *Guidelines for Framework Regulations* and the offshore Energy Regulators will accept delivery of this training by any recognized training institution or Qualified instructor.

- Refer to Section 4 for all required safety training.

Note: On a Marine Installation or Structure with no Environmental Observer, a designated person must have the qualifications of an Environmental Observer in addition to their regular duties.

9.25 Chief Steward

Alternate Titles: Accommodations Coordinator

The Chief Steward is responsible for the accommodations and catering services on the installation.

Qualifications

The candidate must have demonstrated to the Employer, through on-the-job training or a previous assignment, an ability to perform the duties of a Chief Steward.

The candidate must have experience with accommodations and catering management. The individual should be familiar with safe food handling practices and the sanitation guidelines that are required for a food preparation and serving area. Also, the candidate should be knowledgeable in the various areas of accommodation management.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Professional Certification

An individual employed in the position of Chief Steward shall hold:

- Safe Food Handling Practices

Mandatory Training

- Refer to Section 4 for all required safety training.

9.26 Intervention/Workover Supervisor

Alternate Titles: Well Supervisor; Well Services Supervisor; Completions Supervisor

The Completions and Intervention Supervisor is the focal point for coordination of completion and intervention operations in the post-drilling phase. The individual is responsible for the safe and efficient control of completions and intervention work, administration, and planning. For the purpose of this document intervention also includes completion and work over activities.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience or a previous assignment, an ability to perform the duties of an Intervention Supervisor competently and safely.

The candidate must demonstrate an ability to work independently under general supervision, exercise leadership and provide a safe work example for subordinate Personnel. The candidate should have thorough knowledge of the completion and intervention systems on the installation and be able to prioritize planned and unplanned work. They should also demonstrate a thorough knowledge of planning and executing both standard and simultaneous operations where completions activities are undertaken in close proximity to drilling and work-over activities.

The candidate must have also completed on-the-job training as deemed necessary by the Employer.

Mandatory Training

- Refer to Section 4 for all required safety training; and
- Offshore Well Control – Level 4 and Interventions/Workovers

10 Standby and Supply / Support Vessel – Personnel Qualifications and Training

Canadian-flagged offshore Standby and Supply / Support Vessels are regulated under the Canada Shipping Act. Regulations for qualification and training of seafarers fall under Transport Canada, Marine Safety and Security. The certification and training of seafarers falls under the Canada Shipping Act with particular focus on the Crewing Regulations and Marine Certification Regulations. Occupational Safety Training falls under the Canada Labour Code Part 2 and the Marine Occupational Safety and Health Regulations.

Foreign flagged vessels are regulated by their flag state's maritime administration with oversight from Transport Canada pursuant to the Coastal Trading Act (CTA).

Training relevant to mass rescue operations is described in the Atlantic Canada Standby Vessel (AC-SBV) Guidelines issued jointly between the CNSOER and C-NLOER.

Standby and Supply / Support Vessels are required at all times to be under the command of the Master (Captain) who is certified and knowledgeable in the safe operation of the vessel. In addition, each vessel must have a clear chain of command comprised of qualified and certified Personnel. Each vessel is issued a Safe Manning Document stating the minimum manning and certification required for the safe operation of the vessel, and for standby vessels, an AC-SBV Document of Compliance (DOC) stating the minimum manning for safety standby operations.

This section outlines the minimum qualifications, safety training and, where appropriate, marine certification for Standby and Supply / Support Vessels while operating:

(1) within 500 meters of a production or drilling installation, or
(2) when in standby for a drilling or production installation, or
(3) while active in ice management for the protection of an installation.

For each position, the role and reporting relationship is provided along with details regarding service requirements. It is recognized that due to variations in vessel design and complexity, individual organization's operating philosophy and style, crewmember designations and lines of authority may differ from one vessel operation to another.

The following position and safety training requirements are listed in this chapter:

10 Standby and Supply / Support Vessel – Personnel Qualifications and Training
10.1 Deck Rating
10.2 Fast Rescue Craft/Boat (FRC/B)
10.3 Marine Advanced First Aid
10.4 Globally Harmonized System for Hazard Classification and Labelling
10.5 Marine Basic First Aid
10.6 Transportation of Dangerous Goods (TDG)

10.1 Deck Rating

The deckhand's duties may include, while working within the 500-meter zone of an offshore asset, lashing, and securing of back-loaded deck cargo, releasing securing mechanism and hookup of deck cargo being discharged, and connect and disconnect hoses on loading and discharging bulk and/or liquid cargoes to the offshore asset.

During anchor handling operations duties may include securing wires, spooling on and off pennants, stowing chain in lockers, connecting/disconnecting anchors, chains, wire, shackles, etc., as required. Hook up tow wire when involved in towing operations.

During Safety Standby operations duties may include, but may not be limited to, coxswain of the FRB, crewman/spotter of FRB, Operate FRB Davit for launch/recovery, prepare FRB for launch/recovery, operate crane if necessary for deployment of lifesaving equipment, deployment, and recovery of scramble nets, operate crane for deployment of Dacon Scoop (if fitted) and First Aiders.

During mass rescue operations, duties may include retrieval, carriage, decontamination, and processing of casualties, including any non-survivors.

During iceberg towing operations duties may include preparing deck for deployment/recovery of iceberg towrope or net, as well as participation for the hookup or disconnection of the iceberg towrope or net.

Qualifications

The candidate must have adequately demonstrated to the Employer, through on-the-job experience, a recognized pre-sea training course, or a previous assignment, an ability to perform the duties of a Deck Rating competently and safely.

Mandatory Technical Training

- Marine Emergency Duties A1
- Marine Emergency Duties B1
- Marine Emergency Duties B2
- Globally Harmonized System Valid Seafarers Medical

Mandatory Certification

A vessel's Safe Manning Document identifies the number of Bridge Watch Certificates required. There will be a minimum number of deckhand positions requiring Bridge Watchman Certification; however, this may not apply to all deckhand positions.

10.2 Fast Rescue Craft/Boat (FRC/B)

Course Objectives

To provide designated crew members with the knowledge and skills that will enable them to respond effectively as a team to an offshore emergency involving the recovery of survivors from the water.

Applies To

Any crewmember designated as a member of the FRC/B crew for standby operations.

Note: The Master must be exposed to such training to an extent required for their familiarization with the requirements for the safe and effective operation of the boat.

Course Duration

Four (4) days

Prerequisites

None

Renewal

Five (5) years

Note: Re-certification shall be obtained as per STCW requirements.

Course Content

- STCW Code, Chapter VI;
- The rescue boat;
- Protective clothing and equipment;
- General operation of the rescue boat;
- Operational hazards and limitations;
- Launch and recovery;
- In-water familiarization;
- Search patterns and equipment;
- Casualty recovery and care; and
- Maintenance and repair.

10.3 Marine Advanced First Aid

Alternate Titles: Mariners Level 2, Advanced Level 1, and Advanced Medical First Responder Level 1.

Course Objectives

To provide designated crew members onboard a standby vessel with intensive training in the application of advanced first aid techniques as per TP 13008.

"Every seafarer who is designated to apply immediate advanced first aid in the event of an accident or illness on board must demonstrate competence to undertake the tasks, duties and responsibilities."

Applies To

The standby vessel's designated senior first aid person and at least two (2) other crew members, excluding the Master and Chief Engineer.

Course Duration

Five (5) days

Prerequisites

None

Renewal Three (3) years

CPR-HCP/AED (Health Care Professional), annual renewal.

Course Content

- Immediate action;
- First-aid kit;
- Body structure and function;
- Toxicological hazards aboard ship;
- Examination of patient;
- Spinal injuries;
- Burns, scalds and effects of heat and cold;
- Fractures, dislocations and muscular injuries;
- Medical care of rescued persons, including distress;
- Hypothermia and cold exposure;
- Radio medical advice;
- Pharmacology;
- Sterilization;
- Cardiac arrest, drowning and asphyxia;
- Psychological and psychiatric problems; and
- Assessment.

Note: Certificates are only valid for the first 3 years of the validity period from the date of issue.

10.4 Globally Harmonized System for Hazard Classification and Labelling

Course Objectives

To provide Personnel with relevant information with respect to the safe handling, use, storage and disposal of hazardous materials in the workplace.

Applies To

All Personnel on standby/support vessels.

Course Duration

Minimum of four (4) hours, or as required to achieve Course Objectives.

Prerequisites

None

Renewal

No expiry

Course Content

- GHS Regulatory requirements;
- Product classification;
- Supplier, Employer and Employee responsibilities;
- Supplier and workplace labels and variations;
- Safety Data Sheets (SDS);
- Safe storage, handling, use and disposal procedures; and
- Emergency procedures.

10.5 Marine Basic First Aid

Course Objectives

To provide designated crew members onboard a standby vessel with the knowledge and skills necessary to apply basic principles of safety orientated first aid as per TP 13008.

"Every seafarer who is designated to apply immediate basic first aid in the event of an accident or illness on board a vessel must demonstrate competence to undertake the tasks, duties and responsibilities."

Applies To

Seventy-five per cent (75%) of the standby vessel complement as indicated on the vessel's AC-SBV *Document of Compliance*.

Course Duration

Two days

Prerequisites

None

Renewal

Three (3) years

Note: CPR-HCP/AED (Health Care Professional), annual renewal

Course Content

- General principles;
- Body structure and functions;
- Positioning of casualty;
- The unconscious casualty;
- Resuscitation;
- Bleeding;
- Management of shock;
- Burns and scalds, and accidents caused by electricity;
- Rescue and transport of casualty;
- Other topics; and
- Assessment.

10.6 Transportation of Dangerous Goods (TDG)

Course Objectives

To give participants a practical understanding of the regulations governing the transportation of dangerous goods, as set out in the *Canada Transportation of Dangerous Goods Act*.

Applies To

Deck Rating

Note: Vessel Masters and Deck Officers are not subject to this requirement, as they are trained in the IMDG Code, adopted by the International Maritime Organization, as part of their marine certification syllabus.

Course Duration

Minimum of four (4) hours

Renewal

Every three (3) years

Course Content

- Structure and application Canadian Transportation of Dangerous Goods Act & Regulations and interrelation with the IMDG Code;
- Classification of Dangerous Goods and meaning of different labels;
- Responsibilities of the shipper, carrier and consignee;
- Requirements for documentation, identification and marking;
- Stowage and segregation requirements; and
- Emergency response procedures.

11 Exemption and Equivalency Procedures

Exemption Procedure

Because of the intermittent nature of employment, course scheduling and other factors, it may not always be possible for an individual to fulfill all the qualification and training requirements set out in this document prior to traveling offshore. In such circumstances, an exemption may be granted on a case-by-case basis with the approval of the Operator's senior onshore representative and the Offshore Installation Manager (OIM) of an installation or the Person-In-Charge of a Marine Installation or Structure.

Equivalency Procedure

This COP TQOP document is written at a high level and allows for the acceptance of training and certification other than that listed as "recognized" where that training provides for an equivalent level of competence. Determinations of equivalency are left to the discretion of the Operator with oversight by the Offshore Boards. When making such a determination Operators must clearly document the basis for equivalency and the level of management which approved the equivalency. Operators must also notify the Offshore Boards and appropriate Personnel within their organizations who may have need to be aware of such information, e.g., the OIM. Pursuant to the Committee's Charter all determinations of equivalency may be subject to review and audit by the Offshore Boards and documentation supporting the determination must be available upon request. The Offshore Boards reserve the right to deny any determination of equivalency or to issue an order to an Operator relating to equivalency if the process is abused.

These provisions only apply to training and qualifications as listed in this document and do not apply to requirements prescribed by legislation or by agencies having authority outside that referred to in this document, e.g., Transport Canada's authority to require certification for specified marine and aviation positions. Where there are specific requirements prescribed in the "Accord Legislation" the Offshore Boards have developed a "regulatory query" process to deal with equivalencies.

11.1 Training and Qualifications Exemption Notification Form

A. GENERAL INFORMATION

Operator: _____ Installation/Vessel: _____

Name: _____ Position: _____ Employer: _____

Date of Last Medical (Attach copy): _____ _____

Course/Qualification _____

Duration of Exemption: _____

B. REASON FOR EXEMPTION

_____

_____

_____

_____

C. PLAN TO ACHIEVE COMPLIANCE

_____

_____

_____

_____

D. INTERIM MITIGATION MEASURES

_____

_____

_____

_____

E. APPROVALS

a. Operator's Sr. Onshore Representative	Date:

b. Offshore Installation Manager/Person-In-Charge	Date:
c. Exempted Individual	Date:

F. DISTRIBUTION

- C-NLOER/CNSOER (A copy must be provided to the Board having jurisdiction prior to the individual traveling offshore. If outside normal business hours, the form may be forwarded to the Board the next working day).
- Exempt Individual (To be retained by the individual for the duration of the exemption).
- Offshore Installation Manager (To be retained on the installation).
- Operator (To be retained at shore base).

12 TQC Charter

Mandate & Objectives

The Atlantic Canada Offshore Petroleum Training and Qualifications Committee (TQC) is formed as a joint effort among the regulatory authorities, offshore petroleum industry Employers, the offshore workforce to produce a single document containing a concise description of the minimum qualifications and training required of individuals working in Atlantic Canada's offshore petroleum industry.

The respective Regulatory Authorities referred to below and established by the *Accord Acts* are – the Canada Nova Scotia Offshore Energy Regulator (CNSOER) and the Canada Newfoundland and Labrador Offshore Energy Regulator (C-NLOER), also known as, the Boards.

The objectives of the TQC are to:

- Support the development of a sustainable competent offshore workforce capable of working in a safe and efficient manner.
- Clearly define and publish the COP TQOP *for the Training and Qualifications of Personnel*
- Maintain a global network and outlook to ensure that industry knowledge and best practices are identified and applied.
- Incorporate where practicable, best industry practice in the development and maintenance of the COP TQOP.
- Identify and verify where practicable and consistent with Canadian Regulation, international offshore training that is acceptable in Atlantic Canada.

The COP TQOP must be ratified by the Boards and CAPP Offshore Policy Group and will apply to all offshore petroleum operations within their jurisdiction to the extent that it is consistent with the requirements laid down in applicable legislation.

The Boards and the petroleum industry will use the COP TQOP, in applying applicable legislation and in providing appropriate levels of training and certification, in accordance with good industry practice.

The COP TQOP is not intended to be all-inclusive and adherence solely to the COP TQOP may not be sufficient to ensure compliance with all applicable legislation.

CAPP is the custodian of the COP TQOP, which the Boards administer. It is recognized that prevailing Regulations and orders by Board Safety Officers made pursuant to the legislation take precedence over the COP TQOP.

For any specific requirement laid out in the COP TQOP the Boards may, *subject to the legislation***,** accept an alternate measure, approach, training course or certificate where they are satisfied that the alternative provides for an equivalent or satisfactory level of competence and safety.

The COP TQOP will be reviewed on an on-going basis by the Committee and will be revised and re-issued every two years until such time as the Committee deems there are no more updates or changes necessary. In the instance where a change is substantive or time sensitive and required prior to the issuance of a new publication, an addendum will be published.

Membership

The Membership of the TQC is voluntary and made up of suitably qualified persons provided as follows – one member each from the Canada-Newfoundland and Labrador Offshore Energy Regulator and the Nova Scotia Offshore Energy Regulator, and up to five Operator representatives from the CAPP. In addition, two voting members of the offshore workforce provide offshore worker or representation.

The Membership of the TQC signifies the voting members.

The Committee selects a chairperson from the membership for a two-year term.

Accountabilities

Chair – Chair all Committee meetings, set agenda and ensure that the key processes and governance of the Committee are followed.

Members – suitably qualified members are drawn from the Boards,

Operator representatives from CAPP, and offshore workforce to participate in all meetings, provide technical input and advice to the Chair, support the Chair in fulfilling the TQC mandate and work within the key processes and governance of the Committee.

All members have an obligation to bring their experience and knowledge to the

Committee and participate fully. Members should also be aware of their responsibility to communicate widely with their Stakeholders to maximize the knowledge transfer and solicit feedback and input.

Members may nominate suitably qualified alternates to attend meetings, with the prior approval of the Chair. A quorum consists of four members and a representative from at least one of the Boards. All Committee decisions will be made by consensus, but where consensus cannot be achieved a vote will be held.

Organisation

The TQC reports to the Boards and to the CAPP Offshore Policy Group, and all major decisions made, and any public documents produced by the Committee will be referred to these two groups for ratification.

Primary Stakeholders: The primary stakeholders for this Committee are the

Atlantic Canada offshore workforce, who must undertake the training as required by the COP TQOP and are generally Employees of the offshore Operators and Contractors.

Additional Stakeholders: In addition to the offshore workforce, other stakeholders have a vested interest in the provision of offshore training and the competence and safety of the offshore workforce. These may include the following:

- Canadian Association of Oilwell Energy Contractors
- CAPP Atlantic Canada Safety Committee
- CAPP Executive Policy Group
- Offshore Industry Operators
- Transport Canada – Marine Safety
- Training Providers
- Marine Safety Council
- Energy Safety Canada Well Control Committee
- Major offshore marine and aviation contractors

Task Groups: The TQC establishes Task Groups as required to undertake specific technical work on behalf of the Committee. There are regularly two Task Groups, one responsible for Course Quality Reviews and the second for Training and Competency development. Task Groups meet as directed by the Chair, to assist and to provide guidance as requested by the Committee. The Chair nominates a Committee Member to Chair each Task Group. Task Groups are typically staffed by individuals drawn from Stakeholders and have a charter which describes their responsibilities.

Additional Resources: CAPP provides secretariat services to the TQC, maintains the COP TQOP and provides additional ad hoc support to the Chair as required, including meeting scheduling, the issue of agenda and records of Committee decisions. When required, the Committee may retain consultancy services to support the work of the TQC.

Planning

The Committee develops plans to address the following areas:

- Annual goals, objectives, resource requirements and budget;
- A five-year look ahead - to be reviewed annually; and
- A two-year project plan to manage the review and updates to the COP TQOP, including a 45-day review period and change communication to all Stakeholders.

Implementation

The Committee utilizes an implementation and governance process to address the following areas:

Stakeholder Engagement

Offshore and Additional Stakeholder Engagement - The Committee carries out a 45-day external stakeholder consultation process, which includes offshore workplace committees (Occupational Health and Safety) and other external stakeholders as deemed appropriate by

the Committee. This process includes a mechanism to allow workplace committees (Occupational Health and Safety) to be advised on what action was taken regarding any feedback they provided.

Communications – to address requirements for periodic updates, the TQC publishes presentations bulletins and other information, via the workplace committees (Occupational Health and Safety) on all Marine Installations or Structures active in Atlantic Canada. One member of the TQC is assigned responsibility for advising and leading communications to Stakeholders.

Course Recognition – the TQC uses a course quality review process to review courses against defined criteria.

Performance Measurement

The Committee monitors key indicators to measure its performance against its goals and objectives, resource utilization, budget, key processes, governance, and project deliverables.

Review

The Committee conducts a formal review annually to assess whether it is meeting its mandate, delivering on its goals and objectives, planning, and implementing its work effectively and efficiently, and measuring its performance adequately.

Editorial Changes

Editorial changes to the COP TQOP*,* approved by the TQC; do not require external stakeholder consultation or ratification by the Boards. Editorial changes would include things such as error corrections, updating information or revised wording. As long as the proposed changes do not impact training criteria or do not change the meaning or intent of a training requirement, they can be approved by the TQC. If in doubt, editorial changes will be brought to the TQC Secretariat and Boards for consideration.

13 Basic Survival Training – Competency Standard

13.1 Introduction

13.1.1 Competency Training Standards

The Atlantic Canada Training and Qualifications Committee recognized a need to expand on the level of detail previously provided for safety training courses required by the Atlantic Canada Offshore Petroleum Industry COP for the Training and Qualifications of Personnel. This section provides the competence requirements for the following three courses:

- Basic Survival Training (BST)
- Basic Survival Training Recurrent (BST-R)
- Offshore Survival Introduction (OSI)

The three courses, BST, BST-R and OSI are closely related and cover similar topics. The intention of the revised standards is to provide clarity as to what a person must know, understand or be able to perform after having successfully completed a program or course.

This provides the input for Training Providers to deliver their programs, assists in alignment of quality and content, aligns expectations towards the industry and enables comparison with other global training standards.

To visualize the differences the competence statements of all three courses are captured in Table 1.

13.2 Applies To

The individuals who are required to take this training are identified within the current COP TQOP. It is important to emphasize that the 3 courses mentioned above are non-specialist courses. The learning objectives mainly address things on a basic level.

The focus of the OSI is on general awareness and self-rescue. The nature of the incidental Visitor offshore is that they will perform basic tasks under supervision of others.

The focus of the BST and BST-R is on self-rescue and performing basic tasks. The awareness of offshore workers with their own work-environment, processes and resources requires an increased knowledge and understanding as these persons will also operate without supervision.

The focus of the BST-R (recurrent) is identical to the BST. The refresher course is used to maintain the BST competences. As such, the refresher course content emphasis lies more on the performance criteria and less on the lecture aspects as the underpinning knowledge and understanding is considered a pre-requisite of the course. Therefore, the lecture components are typically of shorter duration in the refresher course.

13.2.1 Formulation

Each competence requirement is derived from a task that needs to be performed. The competence requirement is formulated in objective format to clearly define what has to be done to satisfy the requirements of the competence. Each statement can be preceded by the phrase: "The trainee must be able to……." This is also the basis for assessment criteria and measuring individual competencies.

The competence requirements are grouped into functional domains, which are further sub-divided into subject-based groups.

Three columns in Table 1 indicate the applicability of the competence statement for the respective course, OSI, BST and BST-R.

13.2.2 Competence Type

Activities and lessons that comprise the BST, BST-R and OSI courses are designated with the following descriptors which define the outcome (competence) expected of the trainee.

Perform **(P1)**	Trainee must perform and complete the task individually and independently to the satisfaction of the instructor.
Demonstrate / Participate **(P2)**	Trainee must complete the specified individual or team task to the satisfaction of the instructor.
Observe **(P3)**	Trainee must observe, either independently or as part of a group, the specified task. The activity being observed must occur in an area suitable for all observers to clearly see and hear the demonstration.
Describe / Identify **(L)**	Trainee must be able to adequately identify or describe the specified topic as requested by the instructor.

P = practical tasks/exercises - hands on task (this requires that representative* equipment is included in the demonstration/activity)

L = lecture – discussion led by instructor (often includes representative* equipment)

*representative to the extent practicable

13.3 Responsibilities of the Training Provider

It is the responsibility of the Training Provider to ensure that their training program addresses all competences in the table to the extent that each trainee is able to demonstrate what is expected of them. By issuing a certificate of completion the Training Provider states that the individual meets the expected standard.

During training exercises, it is the responsibility of the Training Provider to account for the location and safety of all trainees/students. The instructor must conduct a head count of all registered students prior to commencing training, during and after exercises are completed. This is especially important in scenarios where environmental conditions are being used.

The Training Provider instructor prior to training should demonstrate the importance and method of conducting buddy checks based on the activity being conducted.

The table states the minimum competence requirements to be achieved during the courses. It is not restrictive in how the Training Provider organizes the training or clusters various elements in a session.

13.4 Responsibilities of the Trainee

It is the responsibility of the trainee to medically self-declare any change in their mental or physical health prior to commencing training to the Training Provider including each day of training.

13.5 BST, BST-R and OSI Notes

- THE USE OF HUEBA IN THE HUET IS A P2 REQUIREMENT FOUR (4) OUT OF FIVE (5) RUNS IN THE HUET.

- *One HUET run must consist of deploying and using the HUEBA after inversion.

- SECTIONS 2.4.5 THROUGH 2.4.9 ARE HUET COMPETENCIES NOT RELATED TO THE USE OF THE HUEBA.

- The (SWET) chair training MUST be taken before the HUEBA in HUET training runs as per the CAR.

Note: For trainees who are not medically cleared to use the HUEBA in HUET during training and have a valid medical, the trainee must be "red tagged" by the Training Provider and permitted to complete the training without the use of the HUEBA in the HUET. Upon successful completion of the training, the trainee will be issued the relevant certificate.

Note: For BST training, all evacuation and survival competencies must be demonstrated/performed by the trainee in the real ocean environment.

Conducting BST-R sea-day exercises in an environmental pool.

Note: Prior to implementation, a Training Provider must request a Course Quality Review be conducted to ensure that the risk assessment based on training provider's facility and equipment regarding the use of environmental conditions in the specific exercises that were identified in the competency statements as sea day exercises and/or skills is complete prior to the phase in of this training.

13.6 Competence Table - BST, BST-R and OSI

Table 1

ID	Competence Statement	Competence Type	OSI	BST	BST-R
1	**WORKING OFFSHORE**				
1.1	***The industry***				
1.1.1	Describe, generally, offshore petroleum exploration and production	L		●	
1.1.2	Identify the most common types of offshore Marine installations and Structures	L		●	
1.2	***Managing risks***				
1.2.1	Describe the most common hazards and emergencies associated with working offshore	L	●	●	●
1.2.2	Describe the safety organization / structure on board a Marine Installation or Structure	L		●	●
1.2.3	Describe the 'hazard chain'	L		●	
1.2.4	Describe measures introduced offshore to manage and control risks	L		●	
1.2.5	Describe a Permit To Work system	L		●	
1.3	***Personnel transfer***				
1.3.1	Describe the Personnel transfer devices primarily used in Canadian waters, including appropriate timing for stepping on or off if appropriate	L	●	●	
1.3.2	Describe the risks and weather limitations associated with the use of Personnel transfer devices	L		●	
1.3.3	Observe the correct positioning and behaviour during a Personnel transfer referencing various devices in use	P3	●	●	●
1.3.4	Describe the personal protective equipment required during Personnel transfer	L		●	
2	**HELICOPTER SAFETY & EMERGENCY PROCEDURES**				
2.1	***Helicopter operations***				
2.1.1	Identify the most critical phases in helicopter flight operations	L	●	●	●
2.1.2	Identify tasks and responsibilities of the helicopter support staff (e.g., ground team, HLO, fire-team)	L		●	
2.1.3	Describe pre-flight suit-up procedures and checks	L	●	●	
2.1.4	Describe the boarding and disembarking procedures	L	●	●	
2.1.5	Describe the check-in procedure and applicable restrictions (e.g., ID, medical, luggage, forbidden items)	L	●	●	
2.1.6	Describe the features of the helicopter passenger transportation suit systems	L	●	●	●
2.1.7	Watch the video and perform the stretching prior to performing the donning of a representative helicopter passenger transportation suit system (i.e., importance of proper fit; storage considerations, burping, etc.) Note: Training Providers are *required* (P1) to show the stretching video and to ask students to perform the stretches prior to donning the HPTSS. If a student does not complete the stretching exercises the course certificate will not be issued by the-Training Provider	P1	●	●	●
2.1.8	Identify the available Personal Protective Equipment used during helicopter transfer	L	●	●	●
2.1.9	Demonstrate correctly strapping in a four point harness, avoiding HUEBA-entanglement and incorrect buckle-position	P2	●	●	●
2.1.10	Describe the importance of wearing the harness during all phases of the flight	L	●	●	●
2.2	***Helicopter emergency procedures***				
2.2.1	Describe the rationale for Helicopter Underwater Egress Training (HUET)	L	●	●	●
2.2.2	Identify various forms of emergency landings (on land and water)	L	●	●	●
2.2.3	Identify the announcement to prepare for an emergency landing	L	●	●	●
2.2.4	Describe the purpose of securing loose items and the brace position during an emergency landing	L	●	●	●
2.2.5	Demonstrate the sequence of actions to prepare for an emergency landing on water, including getting watertight while secured in a four point harness	P2	●	●	●

ID	Competence Statement	Competence Type	OSI	BST	BST-R
2.2.6	Demonstrate the use of available personal safety equipment on board the helicopter Note: Dive masks/goggles must be available to students. Participants should be provided with dive masks/goggles to use in the HUET if they choose to do so. The presentation of the information on the use of goggles should present the pros and cons of using them in a neutral manner so that participants can choose whether or not to use them.	P2	●	●	●
2.2.7	Demonstrate the brace-position while secured in a four point harness and outfitted with a HUEBA	P2	●	●	●
2.2.8	Demonstrate a thorough orientation of the helicopter interior (primary/secondary exits, other passengers, reference points)	P2	●	●	●
2.2.9	Describe the possible consequences and considerations for emergency evacuation / egress if a helicopter is outfitted with stroking seats	L	●	●	●
2.2.10	Demonstrate preparing an escape window and emergency exit in accordance with the flight safety card and available instructions	P2	●	●	●
2.2.11	Describe when to prepare an escape window and when to jettison the window	L	●	●	●
2.2.12	Describe the risks and points of attention of evacuating an upright helicopter	L	●	●	●
2.2.13	Describe the sequence of actions when evacuating an upright helicopter after a controlled surface landing	L	●	●	●
2.2.14	Describe the importance of remaining strapped in during a surface evacuation until instructed/ ready to exit	L	●	●	●
2.3	***Helicopter emergency equipment***				
2.3.1	Describe marine-related safety features available on offshore helicopters	L	●	●	●
2.3.2	Identify available emergency equipment and exits and their operation	L	●	●	●
2.3.3	Identify the major components of an aviation raft	L		●	●
2.3.4	Describe the differences between aviation rafts and marine rafts	L		●	●
2.3.5	Describe the launching procedure for an aviation raft	L		●	●
2.3.6	Participate in deploying an aviation raft	P2		●	●
2.3.7	Demonstrate immediate and subsequent actions in the aviation raft after the helicopter has been abandoned	P2		●	●
2.3.8	Identify the survival aids available in an aviation raft	L		●	●
2.4	***Helicopter egress***				
2.4.1	Describe the importance of waiting with seat belt buckled for rolling motion to stop (OR SLOW DOWN) and helicopter to fill with water before egressing an inverted helicopter. This includes not breathing on the HUEBA device prior to inversion (breathe hold)	L	●	●	●
2.4.2	Identify the advantages of clearing escape windows prior to capsize	L	●	●	●
2.4.3	Describe the need for equalization of water-pressure before being able to jettison an emergency window under water	L	●	●	●
2.4.4	Demonstrate a surface evacuation from an upright HUET into an aviation raft, including exit preparation	P2	●	●	●
2.4.5	Demonstrate an inverted underwater egress from the HUET while seated next to an already open representative emergency exit / push-out escape window requiring exit / window to be jettisoned AFTER impact • BREATH-HOLD RUN	P2	●	●	●
2.4.6	Perform an unassisted inverted underwater egress from the HUET, while seated next to a closed representative push-out escape window, requiring the window to be jettisoned underwater • DEPLOY AND USE THE HUEBA IN AN INVERTED, SUBMERGED SITUATION *Refer to BST, BST, OSI notes to ensure medical certification has been met.	P1	●	●	●

ID	Competence Statement	Competence Type	OSI	BST	BST-R
2.4.7	Demonstrate the same egress as 2.4.6 from the opposite side of the HUET (demonstrate either 2.4.6 or 2.4.7 from a fully stroked seat position) • DEPLOY AND USE THE HUEBA PRIOR TO AND/OR AFTER INVERSION *Refer to BST, BST, OSI notes to ensure medical certification has been met.	P2	●	●	●
2.4.8	Demonstrate an inverted underwater egress from a seat not located immediately next to an already open representative emergency exit / push-out escape window. • DEPLOY AND USE THE HUEBA PRIOR TO AND/OR AFTER INVERSION *Refer to BST, BST, OSI notes to ensure medical certification has been met.	P2	●	●	●
2.4.9	Demonstrate an inverted underwater egress from a seat located immediately next to a representative mechanical emergency exit, requiring the exit to be jettisoned underwater and deploying and using the HUEBA in an inverted, submerged situation • DEPLOY AND USE THE HUEBA PRIOR TO AND/OR AFTER INVERSION *Refer to BST, BST, OSI notes to ensure medical certification has been met.	P2	●	●	●
2.4.10	Demonstrate when and how to activate an inflatable passenger transportation suit buoyance system, including the use of available protective features (e.g. spray shield, gloves) • DEPLOY AND USE THE HUEBA PRIOR TO AND/OR AFTER INVERSION *Refer to BST, BST, OSI notes to ensure medical certification has been met.	P2	●	●	●
2.4.11	Describe underwater egress considerations with respect to the presence of an auxiliary fuel tank Note: Helicopter providers must provide information suitable for presentation of the helicopter configurations to the Training Provider in advance of training. Trainees must be aware of auxiliary fuel tank configurations and the implications for emergency egress. Training Providers will provide information for auxiliary fuel tank configurations.	L	●	●	●
2.5	***Helicopter Underwater Emergency Breathing Apparatus (HUEBA)***				
2.5.1	Describe the rationale for using a compressed air helicopter underwater emergency breathing apparatus (HUEBA)	L	●	●	
2.5.2	Describe the components, specifications and limitations of the HUEBA	L	●	●	
2.5.3	Describe the hazards related to using compressed air under water. To prevent lung injuries during ascent, continue to breathe normally if air is available or exhale continuously if the HUEBA is empty/out of air	L	●	●	●
2.5.4	Describe the procedure for using the HUEBA	L	●	●	●
2.5.5	Demonstrate a pre-flight inspection of HUEBA with respect to Appendix A of the document	P2	●	●	●
2.5.6	Identify potential HUEBA malfunctions such as free flowing air from the regulator	L	●	●	●
2.5.7	Identify if a HUEBA is in the open or closed position and fully charged	L	●	●	●
2.5.8	Describe the steps involved in initiating the use of the HUEBA while still above the surface	L	●	●	●
2.5.9	Describe the steps involved in initiating the use of the HUEBA when submerged	L	●	●	●
2.5.10	Demonstrate carrying out breathing actions using HUEBA in a dry environment	P1	●	●	●
2.5.11	Demonstrate the deployment of a HUEBA in water	P1	●	●	●
2.5.12	Demonstrate clearing the second stage using the purge button in water	P1	●	●	●
2.5.13	Demonstrate clearing the second stage using the blast method (through exhaling) in water	P1	●	●	●
2.5.14	Demonstrate breathing HUEBA bottle to empty in water	P1	●	●	●

ID	Competence Statement	Competence Type	OSI	BST	BST-R
2.5.15	DEMONSTRATE THE CORRECT USE OF HUEBA WHILE SEATED IN AN INVERTED, SUBMERGED SITUATION (SWET), ACTIVATE HUEBA PRIOR TO THE INVERSION (BST, BST-R, and OSI trainees)	P1	●	●	●
2.5.16	DEMONSTRATE THE CORRECT USE OF HUEBA WHILE SEATED IN AN INVERTED, SUBMERGED SITUATION (SWET), ACTIVATE HUEBA AFTER INVERSION (BST, BST-R, and OSI trainees)	P1	●	●	●
3	**FIRE SAFETY**				
3.1	***Fire theory***				
3.1.1	Describe energy	L		●	
3.1.2	Describe the modes of combustion: 1) non-flaming, 2) flaming	L		●	
3.1.3	Identify fire models: 1) fire triangle, 2) fire tetrahedron	L		●	
3.1.4	Identify and describe products of combustion	L		●	
3.1.5	Describe heat transfer: 1) conduction, 2) convection, 3) radiation	L		●	
3.1.6	Identify and describe the stages of fire development	L		●	
3.2	***Fire Prevention***				
3.2.1	Identify and describe fire prevention activities	L		●	
3.2.2	Describe the procedures for fire safety surveys and identify areas of concern	L		●	
3.2.3	Identify and describe fire prevention hazards	L		●	
3.2.4	Identify and describe fire prevention precautions	L		●	
3.2.5	Describe how good housekeeping contributes to fire-prevention such as including common causes of fire	L		●	
3.2.6	Describe the importance of good maintenance in relation to prevention	L		●	
3.3	**Fire Considerations and Definitions**				
3.3.1	Describe the causes of 'fire spread' and measures available offshore to limit this spread	L		●	
3.3.2	Describe the terms 'flashpoint', 'fire point' and 'auto-ignition temperature'	L		●	
3.3.3	Describe how to find the flammable limits / range for a given product	L		●	
3.3.4	Describe active and passive fire control systems found offshore	L		●	
3.4	**Fire Detection Systems**				
3.4.1	Describe the functions of the most common smoke detectors, heat detectors, and flame detectors	L		●	
3.4.2	Identify and describe what spaces and compartments you would most likely find the various types of detectors used in these areas	L		●	
3.4.3	Identify and describe fire alarm activation systems and how they operate (e.g., time delays in general alarms, GPA - general platform alarm; ESD - Emergency Shutdown - starts automatically shutting down systems)	L		●	
3.4.4	Describe fixed fire suppression systems and characteristics of different systems including but not limited to carbon dioxide systems, halon replacement systems, fine water mist systems, dry and wet chemical systems, galley systems, manual release/operating systems, sprinkler systems, deluge sprinkler system	L		●	
3.4.5	Describe the proper sequence of actions after detecting a fire	L	●	●	●
3.4.6	Demonstrate the proper sequence of actions after detecting a fire	P2		●	●
3.5	***Portable Extinguishers***				
3.5.1	Identify and describe the classes of fire: 1) class a, 2) class b, 3) class c, 4) class d, 5) class k, and provide examples of classes of fires	L		●	●
3.5.2	Identify and describe the types of portable fire extinguishers and their limitations	L		●	●
3.5.3	Identify and describe the extinguishing agent characteristics	L		●	●
3.5.4	Describe the operational characteristics of portable fire extinguishers	L		●	

ID	Competence Statement	Competence Type	OSI	BST	BST-R
3.5.5	Identify how to select the appropriate portable fire extinguishers	L		●	
3.5.6	Describe proper procedures for using portable and semi-portable fire extinguishers including pre-use inspection	L		●	●
3.6	***Practical Evaluations***				
3.6.1	Demonstrate all types of fire extinguishers (stored pressure water extinguisher, dry chemical extinguisher, a carbon dioxide extinguisher and a foam fire extinguisher) during a live fire practical	P2		●	●
3.6.2	Perform selecting the correct extinguisher (a stored pressure water extinguisher, dry chemical extinguisher, a carbon dioxide extinguisher or a foam fire extinguisher safely) for a fire and demonstrate properly attempting to or extinguishing a fire safely	P1		●	●
3.6.3	Describe the use of a fire-blanket	L		●	
3.6.4	Describe how a semi-portable (i.e., wheeled unit) extinguisher is primed and used	L		●	
3.6.5	Describe and demonstrate preparing a fire hose for use	P2		●	
3.6.6	Describe and demonstrate hose-handling techniques	P2		●	
3.6.7	Describe and demonstrate boundary cooling under supervision	P2		●	
3.6.8	Describe when and how to use the various nozzle-settings	L		●	
3.6.9	Describe the dangers of working with a fire hose under pressure	L		●	
3.6.10	Demonstrate extinguishing a small-scale 3-dimensional liquid fuel fire using an appropriate handheld extinguisher, demonstrating correct procedure and safe angle of attack	P2		●	
3.6.11	Demonstrate extinguishing a small solid fuel fire using an appropriate handheld extinguisher, demonstrate correct procedure and safe angle of attack	P2		●	
3.6.12	Demonstrate how a semi-portable extinguisher is primed and used	L		●	
3.7	***Self-Contained Breathing Apparatus (SCBA)***				
3.7.1	Identify respiratory hazards	L		●	
3.7.2	Describe the proper procedures for the use of an SCBA control board	L		●	
3.7.3	Identify the components of a Self-Contained Breathing Apparatus (SCBA)	L		●	
3.7.4	Identify and describe wearer limitations	L		●	
3.7.5	Identify and describe equipment limitations	L		●	
3.7.6	Identify conditions when the quality of compressed air should be questioned	L		●	
3.7.7	Identify and describe safety precautions and features for SCBA use	L		●	
3.7.8	Describe the operating times of an SCBA cylinder given a specific cylinder size	L		●	
3.7.9	Describe how to inspect an SCBA (including voice communications on the mask)	L		●	
3.7.10	Describe various methods for donning and doffing	L		●	
3.7.11	Describe how to replace a breathing air bottle (BA)	L		●	
3.7.12	Describe care, cleaning and storage of SCBA	L		●	
3.8	***Practical Evaluations of SCBA***				
3.8.1	Perform safety checks of SCBA prior to donning	P1		●	
3.8.2	Perform appropriate action for low air alarm	P1		●	
3.8.3	Perform a test to ensure a proper seal of the face mask	P1		●	
3.8.4	Perform various methods for donning SCBA	P1		●	
3.8.5	Demonstrate donning an SCBA set for emergency egress in an oxygen deficient environment while using the proper technique to breathe breathable air (i.e., don face piece prior to donning set) – consideration given to undertaking this competency as quickly as possible	P2		●	
3.8.6	Demonstrate an escape using an SCBA set from a no visibility environment, while using the proper technique and establishing reference points	P2		●	
3.9	***Personal escape devices***				
3.91	Describe how to use a smoke-hood	L	●	●	
3.9.2	Demonstrate an escape using a smoke-hood from a low visibility environment while demonstrating the proper technique and establishing reference points	P2		●	●
3.9.3	Describe how to use an Emergency Escape Breathing Device (EEBD)	L	●	●	
4	**ABANDONMENT & SURVIVAL**				
4.1	***Emergency preparedness & response***				

ID	Competence Statement	Competence Type	OSI	BST	BST-R
4.1.1	Describe personal measures to take in order to be prepared for an emergency	L	●	●	
4.1.2	Describe the contents of a station bill	L	●	●	
4.1.3	Identify various alarms and status lights on the Marine Installation or Structure	L	●	●	
4.1.4	Describe the general actions taking place on a Marine Installation or Structure during an emergency	L	●	●	
4.1.5	Describe various roles and responsibilities in abandonment situations (including mustering)	L	●	●	●
4.2	***Enemies of survival***				
4.2.1	Identify the various human responses which can be expected under stress or in emergencies	L	●	●	
4.2.2	Identify threats to, survival, including the physical and mental enemies	L	●	●	●
4.2.3	Describe prioritized actions to reduce threats to survival	L	●	●	●
4.2.4	Describe factors which influence survival time	L	●	●	
4.2.5	Describe ways to prevent or slow down the development of injuries due to exposure to elements (hot and cold climate exposure)	L		●	
4.2.6	Identify signs and symptoms of hypothermia	L		●	
4.2.7	Describe methods to treat hypothermia in a survival situation	L		●	
4.2.8	Describe what is meant by 'post rescue collapse'	L		●	
4.2.9	Describe available emergency rations and rationing routine in a survival situation	L		●	
4.3	***Personal flotation Apparatus***				
4.3.1	Describe the importance, working characteristics and limitations of personal flotation apparatus with regards to buoyancy, thermal protection, and self-righting capabilities (i.e., proper fit)	L	●	●	
4.3.2	Describe the difference between a lifejacket and a personal flotation device (PFD)	L		●	
4.3.3	Describe additional safety features available on personal flotation apparatus	L		●	
4.3.4	Demonstrate donning a fixed buoyancy type lifejacket	P2		●	
4.3.5	Observe the use of a lifebuoy including deployment, casualty in-water actions and casualty recovery	P3		●	●
4.3.6	Perform donning a representative immersion suit	P1	●	●	●
4.3.7	Demonstrate in-water behaviour while wearing a representative immersion suit	P2	●	●	●
4.3.8	Demonstrate in-water behaviour while wearing a life-jacket including the HELP position	P2		●	
4.4	***Abandonment***				
4.4.1	Describe the methods of abandonment which could be available for an emergency evacuation under controlled circumstances	L	●	●	●
4.4.2	Describe the primary/preferred methods of abandonment under controlled circumstances in case of a developing emergency	L	●	●	●
4.4.3	Identify the secondary equipment available for abandonment	L	●	●	●
4.4.4	Identify the tertiary equipment available for abandonment	L	●	●	●
4.4.5	Describe how to use an emergency descent device	L		●	●
4.4.6	Describe how to prepare escape chute for use	L		●	
4.4.7	Demonstrate a descent using escape chute	P2	●	●	●
4.4.8	Demonstrate a controlled water entry	P2	●	●	●
4.4.9	Demonstrate the use of a rope ladder (embarkation, pilot or Jacobs)	P2	●	●	●
4.4.10	Describe the in-water group formations, their importance and purpose	L		●	●
4.4.11	Describe in-water positions intended to reduce heat loss	L		●	●
4.4.12	Demonstrate the in-water group formations and their importance and purpose	P2		●	●
4.4.13	Demonstrate swimming formations “Shorten the chain” - each person places their feet at the waist of the next person (rather than under their arms) when they join the chain – forms a compact chain	P2		●	●
4.4.14	Demonstrate the proper step-off technique from height from a minimum height of one meter	P2	●	●	●
4.4.15	Participate in an evacuation at sea scenario, making use of available lifesaving equipment	P2		●	●
4.5	***Distress signals***				
4.5.1	Identify the electronic, audible and visual distress signals available offshore	L	●	●	●

ID	Competence Statement	Competence Type	OSI	BST	BST-R
4.5.2	Describe the working principles of an EPIRB, SART and PLB	L		●	●
4.5.3	Identify the VHF radio emergency channel	L		●	●
4.5.4	Observe the basic use of a VHF radio	P3		●	●
4.5.5	Describe the use of a heliograph	L		●	●
4.5.6	Describe the quantity of pyrotechnics available in the inventory of a survival craft and when to use each type	L		●	●
4.5.7	Describe the working principle, points of attention and limitations of pyrotechnic distress signals	L	●	●	●
4.5.8	Demonstrate safe pyrotechnics activation using an inert flare	P2		●	
4.5.9	Observe demonstration of safe pyrotechnics activation	P3			●
5	**SURVIVAL CRAFT**				
5.1	***Totally Enclosed Motor Propelled Survival Craft (TEMPSC)***				
5.1.1	Describe the importance of the mustering-process	L	●	●	
5.1.2	Identify methods used offshore to perform a headcount during mustering	L	●	●	
5.1.3	Describe why a TEMPSC should be regarded as the primary means of escape in case of water abandonment	L	●	●	
5.1.4	Identify the features of a typical TEMPSC	L	●	●	●
5.1.5	Identify different davit systems and launching systems used for TEMPSC (including hook systems)	L	●	●	●
5.1.6	Describe the difference between on load and off load release	L		●	●
5.1.7	Describe the relationship between the self-righting capability of the TEMPSC and the weight-division inside	L		●	●
5.1.8	Describe the consequences if passengers and equipment in a TEMPSC are not secured	L		●	●
5.1.9	Identify how a TEMPSC is operated	L		●	●
5.1.10	Participate during an alarm, mustering and boarding a TEMPSC. Where a releasable TEMPSC is used participants/trainees will board the lifeboat, fasten their seatbelt, release their seatbelt, and then exit the lifeboat. After reboarding the lifeboat at water level possible scenarios could include operating sprinkler, air, MOB-assistance, and/or stretcher transfer. The lifeboat will be lowered to the water by the Training Provider staff with no trainees onboard. Trainees can re-board the TEMPSC at water level. Where a non-releasable TEMPSC is used, participants may remain on board during lowering	P2		●	●
F5.2	***Life rafts - General***				
5.2.1	Describe the different components and features of life rafts and their functionality (including different labels found on the life raft storage container and their importance)	L		●	●
5.2.2	Describe hydrostatic release of life rafts in case of sinking vessels or Marine Installations or Structures	L		●	●
5.2.3	Describe the inventory & equipment found in the life raft	L		●	●
5.2.4	Identify the tow-patch on the life raft and explain its importance during life raft marshalling/surface support	L		●	●
5.2.5	Participate in the righting of a capsized life raft wearing an immersion suit	P2		●	
5.2.6	Observe the procedure for righting of a capsized life raft with demonstrator wearing a representative immersion suit	P3			●
5.2.7	Demonstrate boarding a life raft from the water unassisted while wearing an immersion suit	P2		●	●
5.2.8	Demonstrate boarding a life raft using the buddy system while wearing representative immersion suits	P2		●	●
5.2.9	Demonstrate a dry life raft-entry from a ladder or other means of descent while wearing an immersion suit	P2		●	●
5.2.10	Observe a condition check of a life raft	P3		●	●
5.2.11	Describe the importance of staying in contact with the life raft's painter line when in the water	L		●	●
5.2.12	Participate in an in water rescue of others while maintaining contact with the life raft	P2		●	●
5.2.13	Demonstrate survival routines in a life raft	P2		●	●

ID	Competence Statement	Competence Type	OSI	BST	BST-R
5.3	***Life rafts -Throw overboard***				
5.3.1	Identify the most favorable location to launch a life raft, considering the prevailing conditions (e.g., wind, current)	L		●	●
5.3.2	Describe how to prepare and deploy a throw overboard type life raft	L		●	
5.3.3	Describe the considerations when moving a life raft container	L		●	●
5.3.4	Participate in deploying a throw overboard type life raft	P2		●	●
5.4	***Life rafts – Davit-launched***				
5.4.1	Identify davit-launched life rafts on deck	L		●	●
5.4.2	Describe the steps of davit crane operation Note: Training Providers must ensure that the trainees are informed the operations of the davit crane may differ from facility to facility.	L		●	●
5.4.3	Describe the sequence of actions of launching a davit launched life raft	L		●	●
5.4.4	Describe the functionality of the different lines connected to the davit-launched life raft and its container	L		●	●
5.4.5	Describe that a davit-launched life raft can also be launched as a throw overboard type life raft	L		●	●
5.4.6	Describe how an offload release hook must be operated during a launch	L		●	●
5.4.7	Describe the actions and precautions to be taken prior to releasing the remote winch-brake from the life raft	L		●	●
5.4.8	Participate in the launching procedures of a davit-launched life raft	P2		●	●
6	**SEARCH & RESCUE**				
6.1	***SAR-organization***				
6.1.1	Describe the structure of the SAR-organization in Canadian waters	L		●	●
6.1.2	Describe the available SAR-resources for Canadian waters (i.e., mutual aid, Automated Merchant Vessel Emergency Reporting System, etc.) including description of the Operator provided SAR program (SBV, HELO)	L		●	●
6.2	***The rescue***				
6.2.1	Identify which information is essential to provide to the SAR-organization in case of an abandonment	L		●	
6.2.2	Identify likely methods of rescue following an emergency in Canadian waters	L	●	●	●
6.2.3	Describe the personal preparations to be made before a rescue	L	●	●	●
6.2.4	Describe the preparations to be made to the survival craft before a rescue	L		●	●
6.2.5	Describe limitations of SAR-resources and their need for prioritizing (i.e., discussion on SAR resources and how it applies to an offshore emergency rescue)	L		●	
6.2.6	Describe safety considerations by SAR-units during a rescue and possible delays due to conditions	L		●	
6.2.7	Describe the search and rescue equipment available on SAR-helicopters	L		●	●
6.2.8	Describe the points of attention when being rescued by helicopter equipment (i.e. hoist, frame)	L		●	
6.2.9	Observe a demonstration of the correct procedure for rescue by helicopter (i.e., hoist, frame)	P3		●	
6.2.10	Describe how SKAD-deployment may be used during a rescue(SKAD = Survival Kit Air Droppable)	L		●	●
6.2.11	Describe the rescue equipment available on offshore Marine Installations and Structures and standby vessels	L		●	●
6.2.12	Identify the points of attention when being rescued by a fast rescue boat	L		●	●
6.2.13	Observe the proper behavior while being rescued by a fast rescue boat with the use of a rescue frame / net	P3		●	●
6.2.14	Observe alternate systems for retrieval (i.e., of healthy individuals) from a life raft or fast rescue boat	P3		●	
6.2.15	Demonstrate a transfer from a TEMPSC to a Fast Rescue Boat including instructions given by the coxswain/coxswain assistants as to how to transfer, where to position and how to behave in the FRC, etc. Describe the differences between the simulated transfer and a transfer at sea such as height difference between the boats, movement of the boats	P2		●	●

ID	Competence Statement	Competence Type	OSI	BST	BST-R
6.2.16	Demonstrate a transfer from a Fast Rescue Boat to a vessel	P2		●	●
6.2.17	Demonstrate a self-rescue from the water to a safe area using a scramble-net or rope ladder (embarkation, pilot or Jacobs)	P2		●	●

13.7 Equipment Requirements

- All equipment, including personal protective equipment, used within the training will be, to the extent practicable, best representative of that used offshore.
- All equipment will be maintained in accordance with applicable standards, certifications, codes, OEM practices (as applicable) or documented maintenance programs, appropriately taking into account the training environment within which it is being used.
- Training Providers will ensure appropriate and sufficient personal protective equipment is available for all trainees, and that training course delivery and changes to it over time are evaluated via risk assessment, to ensure the training is conducted safely and in compliance with applicable provincial regulations.
- The following specific equipment is a minimum listing of requisite materials for any course designed to meet this standard:
  - Pool which includes a shallow end area/platform; pool temp minimum of 16 C^{o}
  - Helicopter Underwater Egress Trainer/Simulator that:
    - is capable of full rotation underwater;
    - has a means of emergency stopping during rotation and lifting from water;
    - is configurable to be representative of helicopter types and common configurations used offshore Atlantic Canada (including harnesses; seat backs; emergency exits and windows height with labelling as applicable, sizing and positioning; emergency exit/window release mechanisms; seat spacing; representative auxiliary fuel tank, seat pitch; seat stroking properties, etc.);
    - has a minimum of one stroking seat to simulate a full eight inches of travel;
    - has window and aisle seating;
    - has a representative mechanical exit;
    - has forward and rear facing seats as found in aircraft types;
    - has windows requiring realistic amount of force to jettison;
    - has all exits/release mechanisms labeled as per their operation;
    - has a simulated auxiliary fuel tank for the aircraft types in Atlantic Canada;
    - is operated via man riding rated crane;
    - includes an aviation life raft with representative assortment of survival equipment;
  - HUEBA;
  - Transport Canada recognized marine abandonment suit which is fit for purpose;
  - Inversion training chair for use in a pool (representative of seats and harnesses used in helicopters flown offshore in Atlantic Canada) and capable of rotation underwater;

- Totally enclosed motor propelled survival craft (TEMPSC) & Launching Systems representative of those found offshore; and
- Fast Rescue Boat(s) capable of Personnel transfer.
- Ocean Going Vessel that:
  - has capacity adequate for one class with instructors and support Personnel; and
  - is outfitted with throw-overboard type life raft.
- Fire field complete with:
  - pollution control system; and
  - open fire pits.
- Any other equipment required for practical or classroom demonstrations, including but not limited to:
  - immersion suits representative of those used commonly in Atlantic Canada;
  - lifejackets;
  - PFDs;
  - life buoy;
  - helicopter passenger transportation suits representative of those used commonly in Atlantic Canada;
  - SCBA;
  - smoke hoods;
  - VHF radios on lifeboat and FRC;
  - Appropriate training flares;
  - Fit for purpose inflatable, throw overboard type life raft representative of accepted Transport Canada approved life raft(s);
  - Appropriate lighting for use in the approved life raft for use during training
  - life raft SOLAS 'A' pack;
  - life raft canister with cradle;
  - life raft hydrostatic release unit;
  - electronic signaling devices representative of those found offshore including PLB, EPIRB, SART and VHF radio; and
  - grab bag representative of those used offshore.
- Emergency descent safety device – e.g., DONUT System;
- Scramble net;
- Escape chute;
- Rope ladder; and
- Helicopter rescue equipment - rescue basket.

- First Aid equipment in accordance with Provincial Occupational Health and Safety Regulations and in addition includes an oxygen kit and AED.

Note: Sanitation of HPTSS
Training Providers are required to adopt a standard procedure for cleaning the suits based on suit manufacturer recommendations.

Note: Air Quality Checks in Lifeboats
As part of the maintenance of lifeboats Training Providers are required to conduct periodic checks for exhaust leaks. At a minimum, an annual inspection must be conducted. The Training Provider must be able to demonstrate that an air quality hazard does not exist. Checking the maintenance records for evidence of exhaust checks as part of the maintenance of lifeboats will be added to the course quality review process.

14 Aircrew Survival Training (AST) Competency Standard

The Atlantic Canada Training and Qualifications Committee recognized a need to expand on the level of detail previously provided for safety training courses required by the Atlantic Canada Offshore Petroleum Industry COP TQOP for the Training and Qualifications of Personnel. This section provides the competence requirements for the following course:

AST

The intention of this section is to provide clarity as to what *Line and SAR pilots; Rescue Specialists, and Aircraft Maintenance Engineers* must know, understand or be able to perform after having successfully completed a program or course.

This provides the input for Training Providers to deliver their programs, assists in alignment of quality and content, aligns expectations towards the industry and enables comparison with other global training standards.

14.1.1 Applies To

The individuals who are required to take this training are identified within the current COP TQOP. It is important to emphasize that the course mentioned above is a specialist course. The learning objectives mainly address things on an advanced level.

The focus of the AST is to provide proficiency in the use of safety, survival and rescue equipment and techniques, and to update individuals with respect to advancements in equipment technology and procedures since their previous training.

14.1.2 Defining Competence

14.1.3 Formulation

Each competence requirement is derived from a task that needs to be performed. The competence requirement is formulated in objective format to clearly define what has to be done to satisfy the requirements of the competence. Each statement can be preceded by the phrase: “The trainee must be able to…….” This is also the basis for assessment criteria and measuring individual competencies.

The competence requirements are grouped into functional domains, which are further sub-divided into subject-based groups. The columns on the right in the competence tables include indication of the applicability of the competence statement to the respective course.

14.1.4 Competence Type

Activities and lessons that comprise the Air Crew Survival Course is designated with the following descriptors which define the outcome (competence) expected of the trainee.

Perform **(P1)**	Trainee must perform and complete the task individually and independently to the satisfaction of the instructor.
Demonstrate / Participate **(P2)**	Trainee must complete the specified individual or team task to the satisfaction of the instructor.
Observe **(P3)**	Trainee must observe, either independently or as part of a group, the specified task. The activity being observed must occur in an area suitable for all observers to clearly see and hear the demonstration.
Describe / Identify **(L)**	Trainee must be able to adequately identify or describe the specified topic as requested by the instructor.

P = practical tasks/exercises - hands on task (this requires that representative* equipment is included in the demonstration/activity)
L = lecture – discussion led by instructor (often includes representative* equipment)
*Representative to the extent practicable

14.1.5 Responsibilities of the Training Provider

It is the responsibility of the Training Provider to ensure that their training program addresses all competences in the table to the extent that each trainee is able to demonstrate what is expected of them. By issuing a certificate of completion the Training Provider states that the individual meets the expected standard.

14.2 Competence Table – Air Crew Survival Training (AST)

Table 2 – Competence Table AST

ID	Competence Statement	Competenc	AST
1	**WORKING OFFSHORE**		
1.2	***Managing risks***		
1.2.1	Describe the most common hazards and emergencies associated with working offshore	L	●
1.2.2	Describe the safety organization / structure on board a Maine Installation or Structure	L	●
2	**HELICOPTER SAFETY & EMERGENCY PROCEDURES**		
2.1	***Helicopter operations***		
2.1.1	Identify the most critical phases in helicopter flight operations	L	●
2.1.2	Describe the features of the helicopter transportation suit systems (Pilot, Rescue Specialist, Hoist Operator, and Aircraft Maintenance Engineer)	L	●
2.1.3	Perform the donning of a representative helicopter transportation suit system. (Importance of proper fit; storage considerations; burping,etc)	P1	●
2.1.4	Identify the available Personal Protective Equipment used during helicopter flight operations	L	●
2.1.5	Demonstrate correctly strapping into a four- or five-point harness, avoiding EUBA-entanglement and incorrect buckle-position	P2	●
2.1.6	Describe the importance of wearing the harness or crew restraint system during all phases of the flight	L	●
2.2	***Helicopter emergency procedures***		
2.2.1	Describe the rationale for helicopter Underwater Egress Training (HUET)	L	●
2.2.2	Identify the four phases of an emergency landing on water (Pre-impact, Impact, Post- impact, and Survival/Rescue)	L	●
2.2.3	Describe the emergency response procedure for aircrew during the pre-impact phase of an emergency landing on water (with and without altitude)	L	●
2.2.4	Describe the rationale for providing early warning to passengers and aircrew for an emergency landing (on land and water)	L	●
2.2.5	Describe the purpose of securing loose items and the brace position during an emergency landing	L	●
2.2.6	Demonstrate the sequence of actions to prepare for an emergency landing on water, including getting watertight while secured in a four- or five-point harness or crew restraint system (to include low altitude, no warning actions for SAR Personnel)	P2	●
2.2.7	Demonstrate the use of available personal safety equipment on board the helicopter	P2	●
2.2.8	Demonstrate the brace-position while secured in a four- or five-point harness and outfitted with an EUBA	P2	●
2.2.9	Demonstrate a thorough orientation of the helicopter interior during passenger and/or SAR flight operations (primary/secondary exits, cockpit flight controls, passengers, reference points, stretchers, crew restraint anchor points, etc.)	P2	●
2.2.10	Describe the possible consequences and considerations for emergency evacuation / egress if a helicopter is outfitted with crash attenuating seats	L	●
2.2.11	Demonstrate preparing an escape window and emergency exit in accordance with the flight safety card and available instructions	P2	●
2.2.12	Describe when to prepare an escape window and when to actually jettison the window. (Including advising passengers or aircrew when it is safe to jettison their exits)	L	●
2.2.13	Describe the risks and points of attention of evacuating an upright helicopter	L	●
2.2.14	Describe the evacuation / abandonment briefing provided to passengers or aircrew during the evacuation of an upright helicopter	L	●

2.2.15	Describe the sequence of actions when evacuating an upright helicopter after a controlled surface landing	L	●
2.2.16	Describe the importance of remaining strapped in during a surface evacuation until instructed / ready to exit	L	●
2.2.17	Describe the possible consequences and considerations of being unsecured during the capsize of an upright helicopter (may include pilot standing while coordinating abandonment or SAR Personnel extricating casualty or incapacitated crew member)	L	●
2.3	***Helicopter emergency equipment***		
2.3.1	Describe marine-related safety features available on offshore helicopters	L	●
2.3.2	Identify available emergency equipment and exits and their operation	L	●
2.3.3	Identify the major components of an aviation raft	L	●
2.3.4	Describe the differences between aviation rafts and marine rafts	L	●
2.3.5	Describe the launching procedure for an aviation raft including the advantages and techniques used to marshal rafts together	L	●
2.3.6	Describe the rationale for selecting the port, starboard, or both rafts during the evacuation of an upright helicopter	L	●
2.3.7	Participate in a dry orientation of an aviation raft to include deploying and securing the raft canopy	P2	●
2.3.8	Participate in deploying an aviation raft	P2	●
2.3.9	Demonstrate immediate and subsequent actions in the aviation raft after the helicopter has been abandoned (possible scenarios could include casualty transfer to the raft or management of injured or incapacitated passenger or crew member)	P2	●
2.3.10	Identify the survival aids available in an aviation raft	L	●
2.4	***Helicopter egress***		
2.4.1	Describe the importance of waiting with harness or crew restraint system secured for rolling motion to stop (or slow down) and helicopter to fill with water before egressing an inverted helicopter. This includes not breathing on the EUBA device prior to inversion (breath hold)	L	●
2.4.2	Identify the advantages of clearing escape windows prior to capsize	L	●
2.4.3	Describe the need for equalization of water-pressure before being able to jettison an emergency window under water	L	●
2.4.4	Demonstrate a surface evacuation from an upright HUET into an aviation raft, including exit preparation, evacuation / abandonment briefing, and command and control of the evacuation (possible scenarios could include casualty transfer to the raft or management of injured or incapacitated passenger or crew member)	P2	●
2.4.5	Demonstrate an inverted underwater egress from the HUET while seated next to an already open representative emergency exit / push-out escape window (primary crew position) requiring exit / window to be jettisoned AFTER impact • Breath-hold run	P2	●
2.4.6	Perform an unassisted inverted underwater egress from the HUET, while seated next. to a closed representative emergency exit / push-out escape window (primary crew position), requiring the window to be jettisoned underwater • Deploy and use the EUBA in an inverted, submerged situation	P1	●
2.4.7	Demonstrate the same egress as 2.4.6 from the opposite side of the HUET (secondary crew position - demonstrate either 2.4.6 or 2.4.7 from a fully stroked seat position. Additional possible scenarios could include removal of mock night vision goggles and/or communications cord disconnect prior to egress)	P2	●

	• Deploy and use the EUBA prior to and/or after inversion		
2.4.8	Demonstrate an inverted underwater egress from a seat not located immediately next to an already open representative emergency exit / push-out escape window (may include egress from an aisle seat position; cross cabin egress; or cross cockpit egress)	P2	●
	• Deploy and use the EUBA prior to and/or after inversion		
2.4.9	Perform a low-light inverted underwater egress from the HUET, while seated next to a closed representative emergency exit / push-out escape window (primary or secondary crew position), requiring the window to be jettisoned underwater	P2	●
	• Deploy and use the EUBA prior to and/or after inversion		
2.4.10	Perform a blackout (no light) inverted underwater egress from the HUET, while seated next to a closed representative emergency exit / push-out escape window (primary or secondary crew position), requiring the window to be jettisoned underwater	P2	●
	• Deploy and use the EUBA prior to and/or after inversion		
2.4.11	Demonstrate an inverted underwater egress by disconnecting from a crew restraint system and egressing through an already open representative emergency exit / push- out escape window (Rescue Specialists and Hoist Operators only)	P2	●
	• Deploy and use the EUBA prior to and/or after inversion		
2.4.12	Demonstrate an inverted underwater egress by disconnecting from a crew restraint system and egressing through a closed representative emergency exit / push-out escape window, requiring the window to be jettisoned underwater (Rescue Specialists and Hoist Operators only)	P2	●
	• Deploy and use the EUBA prior to and/or after inversion		
2.4.13	Demonstrate when and how to activate an inflatable transportation suit buoyancy system, including the use of available protective features	P2	●
2.4.14	Describe underwater egress considerations with respect to the presence of an auxiliary fuel tank	L	●
2.5	***Emergency Underwater Breathing Apparatus (EUBA)***		
2.5.1	Describe the rationale for using a compressed air emergency underwater breathing apparatus (EUBA)	L	●
2.5.2	Describe the components, specifications and limitations of the EUBA	L	●
2.5.3	Describe the hazards related to using compressed air under water. To prevent lung injuries during ascent, continue to breathe normally if air is available or exhale continuously if the HUEBA is empty/out of air.	L	●
2.5.4	Describe the procedure for using the EUBA	L	●
2.5.5	Demonstrate a pre-flight inspection of EUBA The procedure for pre-flight inspection of EUBA is required to be incorporated into training. Please refer to Appendix A.	P2	●
2.5.6	Identify potential EUBA malfunctions	L	●
2.5.7	Identify if a EUBA is in the open or closed position and fully charged	L	●

2.5.8	Describe the steps involved in initiating the use of the EUBA while still above the surface	L	●
2.5.9	Describe the steps involved in initiating the use of the EUBA when submerged	L	●
2.5.10	Demonstrate carrying out breathing actions using EUBA in a dry environment	P1	●
2.5.11	Demonstrate the deployment of a EUBA in water	P1	●
2.5.12	Demonstrate clearing the second stage using the purge button in water	P1	●
2.5.13	Demonstrate clearing the second stage using the blast method (through exhaling) in water	P1	●
2.5.14	Demonstrate breathing EUBA bottle to empty in water	P1	●
2.5.15	Demonstrate the correct use of an EUBA while seated in an inverted, submerged situation (surface water). Demonstrate the correct use of a EUBA while seated in an inverted, submerged situation (SWET), activate EUBA prior to the inversion	P1	●
2.5.16	Demonstrate the correct use of an EUBA while seated in an inverted, submerged situation (SWET), activate EUBA after the inversion	P1	●
3	**FIRE SAFETY**		
3.1	***Prevention, detection and control of fire***		
3.1.1	Describe the proper sequence of actions after detecting a fire	L	●
3.2	***Fire response***		
3.2.1	Demonstrate extinguishing a Class B fire using an appropriate handheld extinguisher, demonstrating the correct procedure and safe angle of attack	P2	●
3.3	***Personal escape devices***		
3.3.1	Demonstrate an escape using a smoke-hood from a low visibility environment while demonstrating the proper technique and establishing reference points	P2	●
4	**ABANDONMENT & SURVIVAL**		
4.1	***Emergency preparedness & response***		
4.1.1	Describe various roles and responsibilities in abandonment situations (including mustering)	L	●
4.2	***Enemies of survival***		
4.2.1	Identify threats to, survival, including the physical and mental enemies	L	●
4.2.2	Describe prioritized actions to reduce threats to survival	L	●
4.3	***Personal flotation Apparatus***		
4.3.1	Observe the use of a lifebuoy including deployment, casualty in-water actions and casualty recovery	P3	●
4.3.2	Perform donning a representative immersion suit in a timely manner	P1	●
4.3.3	Demonstrate in-water behaviour while wearing a representative immersion suit	P2	●
4.4	***Abandonment***		
4.4.1	Describe the methods of abandonment which could be available for an emergency evacuation under controlled circumstances	L	●
4.4.2	Describe the primary/preferred methods of abandonment under controlled circumstances in case of a developing emergency	L	●
4.4.3	Identify the secondary equipment available for abandonment	L	●
4.4.4	Identify the tertiary equipment available for abandonment	L	●
4.4.5	Describe how to use an emergency descent device.	L	●

4.4.6	Demonstrate a descent using escape chute	P2	●
4.4.7	Demonstrate a controlled water entry	P2	●
4.4.8	Demonstrate the use of a rope ladder (embarkation, pilot or Jacobs)	P2	●
4.4.9	Describe the in-water group formations and their importance and purpose	L	●
4.4.10	Describe in-water positions intended to reduce heat loss	L	●
4.4.11	Demonstrate in-water group survival formations	P2	●
4.4.12	Demonstrate swimming formations	P2	●
4.4.13	Demonstrate the proper step-off technique from height from a minimum height of one meter	P2	●
4.4.14	Participate in an evacuation at sea scenario, making use of available lifesaving equipment	P2	●
4.5	***Distress signals***		
4.5.1	Identify the electronic, audible and visual distress signals available offshore	L	●
4.5.2	Describe the working principles of an EPIRB, SART and PLB	L	●
4.5.3	Identify the VHF radio emergency channel	L	●
4.5.4	Observe the basic use of a VHF radio	P3	●
4.5.5	Describe the use of a heliograph	L	●
4.5.6	Describe the quantity of pyrotechnics available in the inventory of a survival craft and when to use each type	L	●
4.5.7	Describe the working principle, points of attention and limitations of pyrotechnic distress signals	L	●
4.5.8	Demonstrate safe pyrotechnics activation using an inert flare	P2	●
5	**SURVIVAL CRAFT**		
5.1	***Totally Enclosed Motor Propelled Survival Craft (TEMPSC)***		
5.1.2	Identify the features of a typical TEMPSC	L	●
5.1.3	Identify different davit systems and launching systems used for TEMPSC (including hook systems)	L	●
5.1.4	Describe the difference between on load and off load release	L	●
5.1.5	Describe the relationship between the self-righting capability of the TEMPSC and the weight-division inside	L	●
5.1.6	Describe the consequences if passengers and equipment in a TEMPSC are not secured	L	●
5.1.7	Identify how a TEMPSC is operated	L	●
5.1.8	Participate during an alarm, mustering, boarding and launching of a TEMPSC as a passenger (possible scenarios could include operating sprinkler, air, MOB-assistance, stretcher transfer)	P2	●
5.2	***Life rafts - General***		
5.2.1	Describe the different components and features of life rafts and their functionality (including different labels found on the life raft storage container and their importance)	L	●
5.2.2	Describe hydrostatic release of life rafts in case of sinking vessels or Marine Installation or Structure	L	●
5.2.3	Describe the inventory & equipment found in the life raft	L	●
5.2.4	Identify the tow-patch on the life raft and explain its importance during life raft marshalling/surface support	L	●
5.2.5	Observe the procedure for righting of a capsized life raft with demonstrator wearing a representative immersion suit	P3	●
5.2.6	Demonstrate boarding a life raft from the water unassisted while wearing an immersion suit	P2	●

5.2.7	Demonstrate boarding a life raft using the buddy system while wearing representative immersion suits	P2	●
5.2.8	Demonstrate a dry life raft-entry from a ladder or other means of descent while wearing an immersion suit	P2	●
5.2.9	Observe a condition check of a life raft	P3	●
5.2.10	Describe the importance of staying in contact with the life raft's painter line when in the water	L	●
5.2.11	Participate in an in water rescue of others while maintaining contact with the life raft	P2	●
5.2.12	Demonstrate survival routines in a life raft	P2	●
5.3	***Life rafts -Throw overboard***		
5.3.1	Identify the most favorable location to launch a life raft, considering the prevailing conditions (e.g. wind, current)	L	●
5.3.2	Describe the considerations when moving a life raft container	L	●
5.3.3	Participate in deploying a throw overboard type life raft	P2	●
5.4	***Life rafts – Davit-launched***		
5.4.1	Identify davit-launched life rafts on deck	L	●
5.4.2	Describe the steps of davit crane operation Note: Training Providers must ensure that the trainees are informed the operations of the davit crane may differ from facility to facility.	L	●
5.4.3	Describe the functionality of the different lines connected to the davit-launched life raft and its container	L	●
5.4.4	Describe that a davit-launched life raft can also be launched as a throw overboard type life raft	L	●
5.4.5	Describe how an offload release hook must be operated during a launch	L	●
5.4.6	Describe the actions and precautions to be taken prior to releasing the remote winch- brake from the life raft	L	●
5.4.7	Participate in the launching procedures of a davit-launched life raft	P2	●
6	**SEARCH & RESCUE**		
6.1	***SAR-organization***		
6.1.1	Describe the structure of the SAR-organization in Canadian waters	L	●
6.1.2	Describe the available SAR-resources for Canadian waters (i.e. mutual aid, Automated Merchant Vessel Emergency Reporting System, etc.) including description of the Operator provided SAR program (SBV, HELO)	L	●
6.2	***The rescue***		
6.2.1	Identify likely methods of rescue following an emergency in Canadian waters	L	●
6.2.2	Describe the personal preparations to be made before a rescue	L	●
6.2.3	Describe the preparations to be made to the survival craft before a rescue	L	●
6.2.4	Describe the search and rescue equipment available on SAR- helicopters	L	●
6.2.5	Describe how SKAD-deployment may be used during a rescue. (SKAD = Survival Kit Air Droppable)	L	●
6.2.6	Describe the rescue equipment available on offshore Marine Installations and Structures and standby vessels	L	●
6.2.7	Identify the points of attention when being rescued by a fast rescue boat	L	●
6.2.8	Observe the proper behavior while being rescued by a fast rescue boat with the use of a rescue frame / net	P3	●

6.2.9	Demonstrate a transfer from a TEMPSC to a Fast Rescue Boat including instructions given by the coxswain/coxswain assistants as to how to transfer, where to position and how to behave in the FRC, etc. Describe the differences between the simulated transfer and a transfer at sea such as height difference between the boats, movement of the boat coxswain/coxswain assistants as to how to transfer, where to position and how to behave in the FRC, etc.	P2	●
6.2.10	Demonstrate a transfer from a Fast Rescue Boat to a vessel	P2	●
6.2.11	Demonstrate a self-rescue from the water to a safe area using a scramble-net or rope ladder (embarkation, pilot or Jacobs)	P2	●

14.3 Equipment Requirements

- All equipment, including personal protective equipment, used within the training will be, to the extent practicable, best representative of that used offshore.
- All equipment will be maintained in accordance with applicable standards, certifications, codes, OEM practices (as applicable) or documented maintenance programs, appropriately taking into account the training environment within which it is being used.
- Training Providers will ensure appropriate and sufficient personal protective equipment is available for all trainees, and that training course delivery and changes to it over time are evaluated via risk assessment, to ensure the training is conducted safely and in compliance with applicable provincial regulations.
- The following specific equipment is a minimum listing of requisite materials for any course designed to meet this standard:
  - Pool which includes a shallow end area/platform; pool temp minimum of 16 C^{o}
  - Helicopter Underwater Egress Trainer/Simulator that:
    - is capable of full rotation underwater;
    - has a means of emergency stopping during rotation and lifting from water;
    - is configurable to be representative of helicopter types and common configurations used offshore Atlantic Canada (including harnesses; seat backs; emergency exits and windows height with labelling as applicable, sizing and positioning; emergency exit/window release mechanisms; seat spacing; representative auxiliary fuel tank, seat pitch; seat stroking properties, etc.);
    - has equipment used by the aircrew during flight (i.e., a crew restraint system (Rescue Specialists and Hoist Operators), and a cockpit module;
    - has a minimum of one stroking seat to simulate a full eight inches of travel;
    - has window and aisle seating;
    - has a representative mechanical exit;
    - has forward and rear facing seats as found in aircraft types;
    - has windows requiring realistic amount of force to jettison;
    - has all exits/release mechanisms labeled as per their operation;
    - has a simulated auxiliary fuel tank for the aircraft types in Atlantic Canada;
    - is operated via man riding rated crane;
    - includes an aviation life raft with representative assortment of survival equipment;
  - HUEBA;
  - Transport Canada recognized marine abandonment suit which is fit for purpose;

- Inversion training chair for use in a pool (representative of seats and harnesses used in helicopters flown offshore in Atlantic Canada) and capable of rotation underwater;
- Totally enclosed motor propelled survival craft (TEMPSC) & Launching Systems representative of those found offshore; and
- Fast Rescue Boat(s) capable of Personnel transfer.
- Ocean Going Vessel that:
  - has capacity adequate for one class with instructors and support Personnel; and
  - is outfitted with throw-overboard type life raft.
- Fire field complete with:
  - pollution control system; and
  - open fire pits.
- Any other equipment required for practical or classroom demonstrations, including but not limited to:
  - immersion suits representative of those used commonly in Atlantic Canada;
  - lifejackets;
  - PFDs;
  - life buoy;
  - helicopter passenger transportation suits representative of those used commonly in Atlantic Canada;
  - SCBA;
  - smoke hoods;
  - VHF radios on lifeboat and FRC;
  - Appropriate training flares;
  - Fit for purpose inflatable, throw overboard type life raft representative of accepted Transport Canada approved life raft(s);
  - Appropriate lighting for use in the approved life raft for use during training
  - life raft SOLAS 'A' pack;
  - life raft canister with cradle;
  - life raft hydrostatic release unit;
  - electronic signaling devices representative of those found offshore including PLB, EPIRB, SART and VHF radio; and
  - grab bag representative of those used offshore.
- Emergency descent safety device – e.g., DONUT System;
- Scramble net;
- Escape chute;
- Rope ladder; and

- Helicopter rescue equipment - rescue basket.

- First Aid equipment in accordance with Provincial Occupational Health and Safety Regulations and in addition includes an oxygen kit and AED.

Note: Sanitation of HPTSS
Training Providers are required to adopt a standard procedure for cleaning the suits based on suit manufacturer recommendations.

Note: Air Quality Checks in Lifeboats
As part of the maintenance of lifeboats Training Providers are required to conduct periodic checks for exhaust leaks. At a minimum, an annual inspection must be conducted. The Training Provider must be able to demonstrate that an air quality hazard does not exist. Checking the maintenance records for evidence of exhaust checks as part of the maintenance of lifeboats will be added to the course quality review process.

15 Survival Craft Coxswain – Competency Standard

15.1 Introduction

15.1.1 Competency Training Standards

The Atlantic Canada Training and Qualifications Committee recognized a need to expand on the level of detail previously provided for safety training courses required by the Atlantic Canada Offshore Petroleum Industry COP TQOP for the Training and Qualifications of Personnel. This section provides the competence requirements for the following courses:

- Survival Craft Coxswain
- Survival Craft Coxswain - Recurrent

The two courses are closely related and cover similar topics. The intention of this competency standard is to provide clarity as to what a person must know, understand or be able to perform after having successfully completed a program or course.

This provides the input for Training Providers to deliver their programs, assists in alignment of quality and content, aligns expectations towards the industry and enables comparison with other global training standards.

To visualize the differences the competence statements of both courses are captured in Table 1. In addition, the following separate tables are available:

Table 2 – Survival Craft Type Endorsements
Table 3 – Competence requirements for Survival Craft Coxswain
Table 4 – Competence requirements for Survival Craft Coxswain - Recurrent

15.1.2 Applies to

The individuals identified within sections 4.28 and 4.29. The purpose of this training is to provide designated Personnel with theoretical and practical training that will enable them to take command of rigid and inflatable survival craft during abandonment.

The focus of the survival craft coxswain recurrent course is identical to the survival craft coxswain course. The recurrent course is used to maintain the survival craft coxswain course competencies. As such, the recurrent course content emphasis lies more on the performance criteria and less on the lecture aspects as the underpinning knowledge and understanding is considered a prerequisite of the course. Therefore, the lecture components are typically of shorter duration in the recurrent course.

15.2 Defining Competence

15.2.1 Formulation

Each competence requirement is derived from a task that needs to be performed. The competence requirement is formulated in objective format to clearly define what has to be done to satisfy the requirements of the competence. Each statement can be preceded by the phrase: "The trainee must be able to……." This is also the basis for assessment criteria and measuring individual competencies.

The competence requirements are grouped into functional domains, which are further sub-divided into subject-based groups. The columns on the right in the competence tables include indication of the applicability of the competence statement to the respective course.

Note: A lifeboat simulator fitted with equipment the same as, or substantially similar to that which is fitted on the installation and which meets industry guidelines (ref: Sec 1.9), may be used.

15.2.2 Competence Type

Activities and lessons that comprise the Survival Craft Coxswain course and its recurrent course are designated with the following descriptors which define the outcome (competence) expected of the trainee.

Perform **(P1)**	Trainee must perform and complete the task individually and independently to the satisfaction of the instructor.
Demonstrate / Participate **(P2)**	Trainee must complete the specified individual or team task to the satisfaction of the instructor.
Observe **(P3)**	Trainee must observe, either independently or as part of a group, the specified task. The activity being observed must occur in an area suitable for all observers to clearly see and hear the demonstration.
Describe / Identify **(L)**	Trainee must be able to adequately identify or describe the specified topic as requested by the instructor,

P = practical tasks/exercises - hands on task (this requires that representative* equipment is included in the demonstration/activity)
L = lecture – discussion led by instructor (often includes representative* equipment)
*representative to the extent practicable

15.3 Responsibilities of the Training Provider

It is the responsibility of the Training Provider to ensure that their training program addresses all competences in the table to the extent that each trainee is able to demonstrate what is expected of them. By issuing a certificate of completion the Training Provider states that the individual meets the expected standard.

The Tables state the minimum competence requirements to be achieved during the courses. It is not restrictive in how the Training Provider organizes the training or clusters various elements in a session.

Note: Where a simulator is used in place of a TEMPSC to assess any learning outcomes Training Providers must be able to demonstrate how the competencies will be achieved by the student delegates.

15.4 Competence Table - Survival Craft Coxswain and Survival Craft Coxswain & Recurrent

Table 3

ID	Competence Statement	Competence Type	Initial Course	Recurrent
1	***Emergency Organization On Board***			
1.1	***Tasks and Responsibilities***			
1.1.1	Identify the emergency alarms used on board (ship /Marine Installation or Structure)	L	●	
1.1.2	Describe a typical emergency abandonment organization on board (ship / Marine Installation or Structure	L	●	
1.1.3	Describe the roles, tasks and responsibilities of the survival craft-coxswain team in an abandonment, emphasis on the leadership role of the coxswain before and after the call for abandonment	L	●	●
1.1.4	Identify the need to be familiar with the specific survival craft on the ship / Marine Installation or Structure (including auxiliary equipment, i.e., life boats life rafts, escape chute, etc.)	L	●	
1.1.5	Describe the requirements with regards to survival craft drills & exercises and the role of the coxswain (including auxiliary equipment, i.e., life boats life rafts, escape chute, etc.)	L	●	
2	**Survival Craft Design & Components**			
2.1	***General***			
2.1.1	Describe different survival craft-types and their characteristics (buoyancy, SOLAS lifesaving requirements for survival craft construction / type approval)	L	●	
2.1.2	Identify the appropriate SOLAS Life Saving requirements and Transport Canada lifesaving appliances regulations/requirements	L	●	
2.1.3	Identify the capacity limitations of survival craft	L	●	
2.1.4	Identify the role of the coxswain in the maintenance requirements for survival craft	L	●	●
2.2	***Hull***			
2.2.1	Demonstrate a visual integrity-check of the hull and fittings	P2	●	●
2.2.2	Describe the concerns/hazards with liquids (presence of oil/water, etc.) in the bilge / engine compartment	L	●	
2.2.3	Demonstrate a check of the condition of the bilges / engine compartment (presence of oil/water, etc.)	P2	●	●
2.2.4	Demonstrate how to empty the bilges of a survival craft	P2	●	●
2.2.5	Describe when to open or close the drain openings in a survival craft, including the importance of the drain plug procedures	L	●	
2.3	***Engine***			
2.3.1	Demonstrate locating the fuel, oil pressure and temperature gauges and RPM-indicator, as appropriate	P2	●	●
2.3.2	Demonstrate how to test the proper operation of the throttle, as appropriate	P2	●	●
2.3.3	Demonstrate how to interpret the oil-pressure and temperature readings when the engine is running	P2	●	●
2.3.4	Identify the emergency fuel shut off valve(s) as appropriate to different survival craft, and when to use them	L	●	
2.3.5	Demonstrate pre-start engine-checks (e.g., oil-level, fuel, batteries, accumulators, etc.)	P2	●	●
2.3.6	Describe different starting features found on different engines (e.g., hydraulic start, air start, pre-heating etc.), necessary steps in order to start the engine and actions to take should the engine not start	L	●	
2.3.7	Perform starting and stopping the engine	P1	●	●
2.3.8	Demonstrate the secondary starting method on the survival craft	P2	●	●

ID	Competence Statement	Competence Type	Initial Course	Recurrent
2.3.9	Describe the limitations of running the engine when out of the water	L	●	
2.3.10	Describe different engine cooling systems	L	●	
2.3.11	Identify the cooling problems which may occur in extreme cold or warm waters (including in ice)	L	●	●
2.4	***Propeller & Rudder***			
2.4.1	Demonstrate a visual check of the condition of the propeller and rudder	P2	●	●
2.4.2	Demonstrate proper rudder operation and emergency rudder operation	P2	●	●
2.4.3	Describe the steering devices and emergency steering devices found on survival crafts	L	●	
2.5	***Release System Operation***			
2.5.1	Describe the working principle of release hooks and their safety features in general	L	●	●
2.5.2	Describe the difference between off-load release and on-load release (including davit-launch life raft release system)	L	●	●
2.5.3	Describe in which situations to use the on-load release feature of a release system	L	●	●
2.5.4	Describe the common causes of “un-intentional releases” of various hook types	L	●	●
2.5.5	Perform the safe operation of a hook release system	P1	●	●
2.5.6	Describe hook release failure and emergency release systems (including secondary fall prevention systems)	L	●	●
2.6	***Fire & Gas Protection***			
2.6.1	Identify the different types of hand-held extinguishers and when to use each type	L	●	
2.6.2	Describe the importance of closing the survival craft's ventilation, hatches and other openings in case of an abandonment in a fire and/or gas situation (including pressure vacuum valves)	L	●	●
2.6.3	Identify the external water-spray system activation mechanism on a survival craft and when it is to be activated; also noting hazards (e.g., reduced visibility, stability, etc.)	L	●	●
2.6.4	Describe the function of the compressed air system on a survival craft, its limitations and when it is to be activated	L	●	●
2.6.5	Describe abandoning into a survival craft under special arrangements/conditions (e.g., H_2S, DSV)	L	●	●
2.6.6	Identify the activation mechanism for the compressed air system	L	●	●
2.6.7	Describe the buildup of CO and CO_2 and potential risks	L	●	●
	Inventory & Equipment			
3.1	***Emergency Equipment***			
3.1.1	Identify the emergency equipment on board survival craft, as required by SOLAS	L	●	
3.1.2	Demonstrate checking the availability and condition of required emergency equipment and other inventory on board a survival craft, in accordance with SOLAS	P2	●	
3.1.3	Describe how and when to use a drogue or sea-anchor including the decision to break watertight integrity	L	●	●
3.1.4	Demonstrate the ability to stream, trip and retrieve a drogue or sea-anchor	P2	●	●
3.1.5	Describe operation of the search light	L	●	
3.2	***Signaling Equipment / Location Aids***			
3.2.1	Demonstrate locating and mounting the radar-reflector and antenna	P3	●	●
3.2.2	Identify life-saving signals as indicated in the 'Illustrated table of life-saving signals' (Ref. IAMSAR / SOLAS, Ch. V)	L	●	
3.2.3	Describe the pyrotechnic signaling equipment found in a survival craft and when to use	L	●	●
3.2.4	Describe the non-pyrotechnic signaling equipment found in a survival craft and when to use	L	●	●
3.2.5	Describe when to use a Search and Rescue Transponder (SART)	L	●	●

ID	Competence Statement	Competence Type	Initial Course	Recurrent
3.2.6	Describe when to activate an Emergency Position Indicating Radio Beacon (EPIRB)	L	●	●
3.3	***External Communications***			
3.3.1	Describe external communication tools available, and actions should loss of external communication occur	L	●	●
3.3.2	Perform contacting a vessel or station in the vicinity, using a VHF radio, including identification of the emergency channel	P1	●	●
3.3.3	Describe the basic Standard Marine Communication Phrases and radio etiquette during radio communications	L	●	
	Launching & Recovery			
4.1	***General***			
4.1.1	Identify the safety considerations for the launching requirements for survival crafts	L	●	
4.1.2	Describe the different launching arrangements used for survival crafts, their operating principles and advantages / disadvantages	L	●	
4.1.3	Describe the points of attention related to the use of davit winches, including limit switches and brake operation	L	●	
4.1.4	Demonstrate safe operation of the winch (hoisting and lowering), both using the winch-motor as well as manually	P2	●	●
4.1.5	Describe the dangers of losing control of the crank-handle, how to avoid this and immediate actions should this occur	L	●	●
4.2	***Pre-launch Checks***			
4.2.1	Identify hazards resulting from the incident causing the need to abandon the ship/Marine Installation or Structure which may interfere with a safe launch (e.g., heel/trim, gas, oil, fire, explosions, toxicity)	L	●	●
4.2.2	Identify physical and environmental hazards caused by external conditions which may interfere with a safe launch	L	●	●
4.2.3	Describe launching considerations based on assessed hazards (e.g., radio communications, launch, wait, use secondary station)	L	●	●
4.2.4	Describe checking that mechanical restraints which prevent the accidental launch of the survival craft are removed (if present)	L	●	●
4.2.5	Describe secondary fall prevention systems used to prevent an accidental release from the falls	L	●	●
4.2.6	Describe watertight integrity checks after embarkation of passengers	L	●	●
4.2.7	Demonstrate pre-launch checks (including verification that the brake-wire is present)	P2	●	●
4.2.8	Demonstrate confirmation (visual and audio) that the immediate launch area is clear and safe	P2	●	●
4.3	***Mustering***			
4.3.1	Describe the role of the coxswain in mustering (including Personal Protective Equipment (PPE) that should be used)	L	●	●
4.3.2	Describe registering missing/additional crew/passengers reporting at the muster station	L	●	●
4.3.3	Perform reporting status/headcount to command/bridge	P1	●	●
4.4	***Embarkation***			
4.4.1	Describe coordinating boarding, considering weight-distribution and boarding sequence (including potential for passenger operation of auxiliary equipment)	L	●	●
4.4.2	Describe why all crew/passengers/equipment must be properly seated/secured	L	●	●
4.5	***Launching***			
4.5.1	Describe the considerations for launch and release of a survival craft into a heavy seas swell (i.e., constant tension on brake, release in a trough, heading, etc.)	L	●	●
4.5.2	Describe hazards when launching a survival craft while a ship / Marine Installation or Structure is still making headway	L	●	

ID	Competence Statement	Competence Type	Initial Course	Recurrent
4.5.3	Describe the use and function of the restraining hardware (including the painter line, pendants, gripes and tricing gear / bowsing tackle)	L	●	
4.5.4	Perform launching a survival craft in a safe manner, in accordance with on board procedures	P1	●	●
4.6	***Recovery***			
4.6.1	Perform recovering and stowing a survival craft (including proper checks for resetting of the hooks)	P1	●	●
4.6.2	Identify various recovery methods	L	●	●
4.6.3	Demonstrate preparing the survival craft for recovery	P2	●	●
4.6.4	Describe the reasons for interrupting hoisting once the survival craft is clear of the water / waves (including boat steady; hydrostatic interlock reset; insert safety pins)	L	●	●
4.6.5	Describe how to recover the survival craft using recovery strops	L	●	
4.6.6	Describe the tasks involved in preparing a survival craft for future use	L	●	
	Operating a Survival craft			
5.1	***Boat Control***			
5.1.1	Describe the characteristics and behaviour of the survival craft (handling and stability)	L	●	
5.1.2	Describe importance of a continuous awareness of debris and objects in the water (including ice)	L	●	
5.1.3	Describe the difficulty of clearing the weather side of a ship / Marine Installation or Structure	L	●	
5.1.4	Describe procedure used in a survival craft in rough weather (i.e., optimizing its behaviour by selecting a favorable heading, including considerations of / impact from wind, wave and swell direction)	L	●	●
5.1.5	Perform holding position/heave to	P1	●	●
5.1.6	Perform sailing on a set heading within 20 degrees, including blind steerage	P1	●	●
5.1.7	Perform pacing with a FRB making way, enabling a transfer of people	P1	●	●
5.2	***Emergency Boat Handling***			
5.2.1	Describe actions in case of engine failure or loss of propulsion at sea	L	●	●
5.2.2	Describe actions in case of a collision (boat, obstacle)	L	●	●
5.2.3	Describe the corrective actions to be taken when the steering fails	L	●	●
5.2.4	Perform operation of the emergency steering system and maintain a course	P1	●	●
5.3	***Recovery of Persons in Water***			
5.3.1	Describe the considerations for recovering person(s) in the water	L	●	●
5.3.2	Identify different devices that can be used to recover survivors from the water and their limitations	L	●	●
5.3.3	Perform casualty approach / person overboard pick-up	P1	●	●
5.4	***Towing***			
5.4.1	Describe in what situation towing may be considered	L	●	●
5.4.2	Describe the hazards of a towing operation and the safety measures to take during a tow (including the danger of breaking the watertight integrity)	L	●	●
5.4.3	Describe why a sea-anchor should be retrieved when towing another survival craft away from immediate danger	L	●	
5.4.4	Perform an approach to a survival craft	P1	●	●
5.4.5	Demonstrate connection of a tow operation (for both under tow and towing)	P2	●	●
5.4.6	Perform maneuvers while towing	P1	●	●
5.4.7	Demonstrate proper procedures for being towed	P2	●	●

ID	Competence Statement	Competence Type	Initial Course	Recurrent
5.7	***Using a Compass***			
5.7.1	Describe the use of a compass within a survival craft (recognizing the impact of the steel structure, compass condition, etc.)	L	●	
	The Survival Phase			
6.1	***Management & Leadership***			
6.1.1	Describe leadership styles, general reaction patterns of passengers and crew in the survival craft	L	●	
6.1.2	Describe how to monitor the condition of people onboard and how to respond (including motivating, encouraging and re-assuring)	L	●	
6.1.3	Demonstrate establishing watchkeeping routines	P2	●	●
6.1.4	Demonstrate providing appropriate updates of the status of the craft to the rescue authority	P2	●	●
6.1.5	Describe how to recognize and reduce stress in self and others	L	●	
6.2	***Organization***			
6.2.1	Describe determining the “safe area”	L	●	●
6.2.2	Describe the effects of weather conditions on the safety and detectability of Personnel and survival craft	L	●	
6.2.3	Demonstrate how to prepare the survival craft to withstand different weather conditions	P2	●	●
6.2.4	Describe how to organize equipment to be used onboard the survival craft	L	●	●
6.2.5	Describe establishing sanitation procedures onboard the survival craft	L	●	●
6.2.6	Describe establishing routines to ration and issue anti-seasickness tablets, water and emergency food	L	●	●
6.2.7	Describe collecting and storing rainwater	L	●	●
6.3	***Habitability***			
6.3.1	Describe habitability strategies (related to temperature, air quality, motion sickness, waste management)	L	●	●
6.3.2	Describe the challenges of casualty management in the survival craft	L	●	●
6.3.3	Describe the signs of hypothermia, hyperthermia, carbon dioxide poisoning, dehydration	L	●	●
6.3.4	Describe how to prevent or slow down the development of hypothermia	L	●	●
6.3.5	Describe how to minimize dehydration in hot conditions	L	●	●
6.4	***Rescue by Vessel***			
6.4.1	Describe the risks involved in transferring people from a survival craft to a ship	L	●	
6.4.2	Identify a rescue zone on a ship	L	●	
6.4.3	Describe different ways of transferring people from a survival craft to an FRB	L	●	
6.4.4	Describe prioritizing of the transfer of people	L	●	●
6.4.5	Describe how to transfer a person in a stretcher from a survival craft to an FRB	L	●	●
6.5	***Rescue by Helicopter***			
6.5.1	Describe cooperation with a helicopter, following their instructions with reference to maintaining a course to steer and boat handling	L	●	
6.5.2	Describe the importance of grounding the winch-cable during helicopter operations and how this is achieved	L	●	
6.5.3	Describe methods used by SAR- helicopters to transfer a casualty from the water or from a boat	L	●	
6.6	***Beaching***			
6.6.1	Describe the risks involved in beaching a survival craft	L	●	

ID	Competence Statement	Competence Type	Initial Course	Recurrent
	Operating Davit Launched Life rafts			
7.1	***Davit-launched Life rafts***			
7.1.1	Describe the operation and arrangements of a single-fall davit, used to launch davit-launched life-rafts	L	●	
7.1.2	Describe the operation of the remote-brake release mechanism of a single-fall davit	L	●	
7.1.3	Describe the function of all lines found on a davit-launched raft and its container	L	●	
7.1.4	Demonstrate preparation of a davit-launched life raft for boarding	P2	●	●
7.1.5	Demonstrate how to board and launch a davit-launched life raft	P2	●	●
	Marine Escape Chute			
8.1	***Marine Escape Chute***			
8.1.1	Describe role of the coxswain in coordinating the operation of marine escape chute (including life raft boarding and surface rescue)	L	●	
8.1.2	Describe the role of the coxswain in the coordination of any other abandonment options available on their Marine Installation or Structure	L	●	
9	**Operating Survival Crafts in Ice**			
9.1	***Survival Craft in Ice Prone Waters***			
9.1.1	Describe the precautions that must be considered when operating survival craft in low temperatures or ice prone waters	L	●	●
9.1.2	Describe the precautions to take when abandoning a facility in ice covered waters. (e.g. – ice in launching area, keel cooler/rudder/propeller damage)	L	●	●
9.1.3	Describe the effects of ice accretion on board a survival craft (e.g., stability, vision)	L	●	●
9.1.4	Describe the precautions while maneuvering in sea ice	L	●	●
9.1.5	Describe the actions to take in the event that a survival craft becomes beset in ice	L	●	●
9.1.6	Describe the actions to take when being escorted through ice by a ship	L	●	●
9.1.7	Describe additional precautions to be taken when towing or being towed through ice (speed, constant monitoring of the towed vessel by the towing vessel)	L	●	●

The following competencies are listed such that should an endorsement for survival craft *type* be added to a course certificate there is a requirement that the following competencies be included in the training for the following types.

16 Survival Craft Type Endorsements

CT = Competence Type
I = Initial Training Course
R = Recurrent Training Course

Table 2

	Competence Statement	CT	I	R
	Preferred Orientation and Displacement Launching Assist (PrOD)			
1	Describe the PrOD system and how it assists the launching of a survival craft	L	•	•
2	Describe the launching process and release of the PrOD after the boat has been released from the falls	L	•	•
3	Describe the emergency release of the PrOD system	L	•	•
4	Demonstrate launching using a PrOD system	P1	•	•
	Single Fall Survival Craft Launch			
1	Describe the brake system, lowering process and hook release of the single fall survival craft	L	•	•
2	Describe the emergency release system of a single fall survival craft	L	•	•
3	Describe the auxiliary self-righting system of a single fall survival craft	L	•	•
4	Demonstrate ability to turn single fall survival craft away from the Marine Installation or Structure on contact with the water	P1	•	•

16.1 Equipment Requirements

- All equipment, including personal protective equipment, used within the training will be, to the extent practicable, best representative of that used offshore.

- All equipment will be maintained in accordance with applicable standards, certifications, codes, OEM practices or documented maintenance programs, appropriately taking into account the training environment within which it is being used.

- Training Providers will ensure appropriate and sufficient personal protective equipment is available for all trainees, and that training course delivery and changes to it over time are evaluated via risk assessment, to ensure the training is conducted safely and in compliance with applicable provincial regulations.

- The following specific equipment is a minimum listing of requisite materials for any course designed to meet this standard:
    - one set of gravity davits to house the survival craft, sited so as to allow launching into the open water and recovery.
    - one survival craft fire-protected TEL complying with SOLAS 1974 Chapter III
    - one davit-launched inflatable life raft with suitable launching arrangements
    - two portable 2-way radiotelephones approved for use in survival craft.
    - variety of hand flares, parachute rockets and day smoke signals
    - one demonstration Class 1 emergency position-indicating radio beacon (EPIRB)
    - one demonstration search and rescue transponder (SART)
    - representative stretcher

*Note**: Air Quality Checks in Lifeboats***
As part of the maintenance of lifeboats Training Providers are required to conduct periodic checks for exhaust leaks. At a minimum, an annual inspection must be conducted. The Training Provider must be able to demonstrate that an air quality hazard does not exist. Checking the maintenance records for evidence of exhaust checks as part of the maintenance of lifeboats will be added to the course quality review process. Checking the maintenance records for evidence of exhaust checks as part of the maintenance of lifeboats has been added to the course quality review process.

16.2 References

- DNV Standard for Certification No. 3.321; *Competence of Lifeboat Coxswains.*
- In preparing this CoP, related training required by OPITO, Transport Canada and STCW was referenced. However, training offered to meet this COP TQOP does not automatically provide certificates for OPITO, Transport Canada or STCW.

17 Competence Table - Survival Craft Coxswain

Table 4

ID	Competence Statement	Competence Type	Initial Course
1	***Emergency Organization on Board***		
1.1	***Tasks and Responsibilities***		
1.1.1	Identify the emergency alarms used on board the (ship /Marine Installation or Structure	L	●
1.1.2	Describe a typical emergency abandonment organization on board (ship / Marine Installation or Structure	L	●
1.1.3	Describe the roles, tasks and responsibilities of the survival craft-coxswain team in an abandonment, emphasis on the leadership role of the coxswain before and after the call for abandonment	L	●
1.1.4	Identify the need to be familiar with the specific survival craft on the ship / Marine Installation or Structure (including auxiliary equipment, i.e., life boats, life rafts, escape chute etc.)	L	●
1.1.5	Describe the requirements with regards to survival craft drills & exercises and the role of the coxswain (including auxiliary equipment, i.e., life boats, life rafts, escape chute etc.)	L	●
2	**Survival Craft Design & Components**		
2.1	***General***		
2.1.1	Describe different survival craft-types and their characteristics (buoyancy, SOLAS lifesaving requirements for survival craft construction / type approval)	L	●
2.1.2	Identify the appropriate SOLAS Life Saving requirements and Transport Canada Lifesaving appliances regulations/requirements	L	●
2.1.3	Identify the capacity limitations of survival craft	L	●
2.1.4	Identify the role of the coxswain in the maintenance requirements for survival craft	L	●
2.2	***Hull***		
2.2.1	Demonstrate a visual integrity-check of the hull and fittings	P2	●
2.2.2	Describe the concerns/hazards with liquids (presence of oil/water, etc.) in the bilge / engine compartment	L	●
2.2.3	Demonstrate a check of the condition of the bilges / engine compartment (presence of oil/water, etc.)	P2	●
2.2.4	Demonstrate how to empty the bilges of a survival craft	P2	●
2.2.5	Describe when to open or close the drain openings in a survival craft, including the importance of the drain plug procedures	L	●
2.3	***Engine***		
2.3.1	Demonstrate locating the fuel, oil pressure and temperature gauges and RPM-indicator, as appropriate	P2	●
2.3.2	Demonstrate how to test the proper operation of the throttle, as appropriate	P2	●
2.3.3	Demonstrate how to interpret the oil-pressure and temperature readings when the engine is running	P2	●
2.3.4	Identify the emergency fuel shut off valve(s) as appropriate to different survival craft, and when to use them	L	●
2.3.5	Demonstrate pre-start engine-checks (e.g., oil-level, fuel, batteries, accumulators, etc.)	P2	●
2.3.6	Describe different starting features found on different engines (e.g., hydraulic start, air start, pre-heating etc.), necessary steps in order to start the engine and actions to take should the engine not start	L	●
2.3.7	Perform starting and stopping the engine	P1	●
2.3.8	Demonstrate the secondary starting method on the survival craft	P2	●
2.3.9	Describe the limitations of running the engine when out of the water	L	●
2.3.10	Describe different engine cooling systems	L	●

ID	Competence Statement	Competence Type	Initial Course
2.3.11	Identify the cooling problems which may occur in extreme cold or warm waters (including in ice)	L	●
2.4	***Propeller & Rudder***		
2.4.1	Demonstrate a visual check of the condition of the propeller and rudder	P2	●
2.4.2	Demonstrate proper rudder operation and emergency rudder operation	P2	●
2.4.3	Describe the steering devices and emergency steering devices found on survival crafts	L	●
2.5	***Release System Operation***		
2.5.1	Describe the working principle of release hooks and their safety features in general	L	●
2.5.2	Describe the difference between off-load release and on-load release (including davit-launch life raft release system)	L	●
2.5.3	Describe in which situations to use the on-load release feature of a release system	L	●
2.5.4	Describe the common causes of "un-intentional releases" of various hook types	L	●
2.5.5	Perform the safe operation of a hook release system	P1	●
2.5.6	Describe hook release failure and emergency release systems (including secondary fall prevention systems)	L	●
2.6	***Fire & Gas Protection***		
2.6.1	Identify the different types of hand-held extinguishers and when to use each type	L	●
2.6.2	Describe the importance of closing the survival craft's ventilation, hatches and other openings in case of an abandonment in a fire and/or gas situation (including pressure vacuum valves)	L	●
2.6.3	Identify the external water-spray system activation mechanism on a survival craft and when it is to be activated; also noting hazards (e.g., reduced visibility, stability, etc.)	L	●
2.6.4	Describe the function of the compressed air system on a survival craft, its limitations and when it is to be activated	L	●
2.6.5	Describe abandoning into a survival craft under special arrangements/conditions (e.g., H_2S, DSV)	L	●
2.6.6	Identify the activation mechanism for the compressed air system	L	●
2.6.7	Describe the buildup of CO and CO_2 and potential risks	L	●
	Inventory & Equipment		
3.1	***Emergency Equipment***		
3.1.1	Identify the emergency equipment on board survival craft, as required by SOLAS	L	●
3.1.2	Demonstrate checking the availability and condition of required emergency equipment and other inventory on board a survival craft, in accordance with SOLAS	P2	●
3.1.3	Describe how and when to use a drogue or sea-anchor including the decision to break watertight integrity	L	●
3.1.4	Demonstrate the ability to stream, trip and retrieve a drogue or sea-anchor	P2	●
3.1.5	Describe operation of the search light	L	●
3.2	***Signaling Equipment / Location Aids***		
3.2.1	Demonstrate locating and mounting the radar-reflector and antenna	P3	●
3.2.2	Identify life-saving signals as indicated in the 'Illustrated table of life-saving signals' (Ref. IAMSAR / SOLAS, Ch.V)	L	●
3.2.3	Describe the pyrotechnic signaling equipment found in a survival craft and when to use	L	●
3.2.4	Describe the non-pyrotechnic signaling equipment found in a survival craft and when to use	L	●
3.2.5	Describe when to use a Search and Rescue Transponder (SART)	L	●
3.2.6	Describe when to activate an Emergency Position Indicating Radio Beacon (EPIRB)	L	●
3.3	***External Communications***		

ID	Competence Statement	Competence Type	Initial Course
3.3.1	Describe external communication tools available, and actions should loss of external communication occur	L	●
3.3.2	Perform contacting a vessel or station in the vicinity, using a VHF radio, including identification of the emergency channel	P1	●
3.3.3	Describe the basic Standard Marine Communication Phrases and radio etiquette during radio communications	L	●
	Launching & Recovery		
4.1	***General***		
4.1.1	Identify the safety considerations for the launching requirements for survival crafts	L	●
4.1.2	Describe the different launching arrangements used for survival crafts, their operating principles and advantages / disadvantages	L	●
4.1.3	Describe the points of attention related to the use of davit winches, including limit switches and brake operation	L	●
4.1.4	Demonstrate safe operation of the winch (hoisting and lowering), both using the winch-motor as well as manually	P2	●
4.1.5	Describe the dangers of losing control of the crank-handle, how to avoid this and immediate actions should this occur	L	●
4.2	***Pre-launch Checks***		
4.2.1	Identify hazards resulting from the incident causing the need to abandon the ship/Marine Installation or Structure which may interfere with a safe launch (e.g., heel/trim, gas, oil, fire, explosions, toxicity)	L	●
4.2.2	Identify physical and environmental hazards caused by external conditions which may interfere with a safe launch	L	●
4.2.3	Describe launching considerations based on assessed hazards (e.g., radio communications, launch, wait, use secondary station)	L	●
4.2.4	Describe checking that mechanical restraints which prevent the accidental launch of the survival craft are removed (if present)	L	●
4.2.5	Describe secondary fall prevention systems used to prevent an accidental release from the falls.	L	●
4.2.6	Describe watertight integrity checks after embarkation of passengers	L	●
4.2.7	Demonstrate pre-launch checks (including verification that the brake-wire is present)	P2	●
4.2.8	Demonstrate confirmation (visual and audio) that the immediate launch area is clear and safe	P2	●
4.3	***Mustering***		
4.3.1	Describe the role of the coxswain in mustering (including Personal Protective Equipment (PPE) that should be used)	L	●
4.3.2	Describe registering missing/additional crew/passengers reporting at the muster station	L	●
4.3.3	Perform reporting status/headcount to command/bridge	P1	●
4.4	***Embarkation***		
4.4.1	Describe coordinating boarding, considering weight-distribution and boarding sequence (including potential for passenger operation of auxiliary equipment)	L	●
4.4.2	Describe why all crew/passengers/equipment must be properly seated/secured	L	●
4.5	***Launching***		
4.5.1	Describe the considerations for launch and release of a survival craft into a heavy seas swell (i.e., constant tension on brake, release in a trough, heading, etc.)	L	●
4.5.2	Describe hazards when launching a survival craft while a ship / Marine Installation or Structure still making headway	L	●
4.5.3	Describe the use and function of the restraining hardware (including the painter line, pendants, gripes and tricing gear / bowsing tackle)	L	●
4.5.4	Perform launching a survival craft in a safe manner, in accordance with on board procedures	P1	●

ID	Competence Statement	Competence Type	Initial Course
4.6	***Recovery***		
4.6.1	Perform recovering and stowing a survival craft (including proper checks for resetting of the hooks)	P1	●
4.6.2	Identify various recovery methods	L	●
4.6.3	Demonstrate preparing the survival craft for recovery	P2	●
4.6.4	Describe the reasons for interrupting hoisting once the survival craft is clear of the water / waves (including boat steady; hydrostatic interlock reset; insert safety pins)	L	●
4.6.5	Describe how to recover the survival craft using recovery strops	L	●
4.6.6	Describe the tasks involved in preparing a survival craft for future use	L	●
	Operating a Survival craft		
5.1	***Boat Control***		
5.1.1	Describe the characteristics and behaviour of the survival craft (handling and stability)	L	●
5.1.2	Describe importance of a continuous awareness of debris and objects in the water (including ice)	L	●
5.1.3	Describe the difficulty of clearing the weather side of a ship / installation	L	●
5.1.4	Describe procedure used in a survival craft in rough weather (i.e., optimizing its behaviour by selecting a favorable heading, including considerations of / impact from wind, wave and swell direction)	L	●
5.1.5	Perform holding position/heave to	P1	●
5.1.6	Perform sailing on a set heading within 20 degrees, including blind steerage	P1	●
5.1.7	Perform pacing with a FRB making way, enabling a transfer of people	P1	●
5.2	***Emergency Boat Handling***		
5.2.1	Describe actions in case of engine failure or loss of propulsion at sea	L	●
5.2.2	Describe actions in case of a collision (boat, obstacle)	L	●
5.2.3	Describe the corrective actions to be taken when the steering fails	L	●
5.2.4	Perform operation of the emergency steering system and maintain a course	P1	●
5.3	***Recovery of Persons in Water***		
5.3.1	Describe the considerations for recovering person(s) in the water	L	●
5.3.2	Identify different devices that can be used to recover survivors from the water and their limitations	L	●
5.3.3	Perform casualty approach / person overboard pick-up	P1	●
5.4	***Towing***		
5.4.1	Describe in what situation towing may be considered	L	●
5.4.2	Describe the hazards of a towing operation and the safety measures to take during a tow (including the danger of breaking the watertight integrity)	L	●
5.4.3	Describe why a sea-anchor should be retrieved when towing another survival craft away from immediate danger	L	●
5.4.4	Perform an approach to a survival craft	P1	●
5.4.5	Demonstrate connection of a tow operation (for both under tow and towing)	P2	●
5.4.6	Perform maneuvers while towing	P1	●
5.4.7	Demonstrate proper procedures for being towed	P2	●
5.7	***Using a Compass***		
5.7.1	Describe the use of a compass within a survival craft (recognizing the impact of the steel structure, compass condition, etc.)	L	●

ID	Competence Statement	Competence Type	Initial Course
	The Survival Phase		
6.1	***Management & Leadership***		
6.1.1	Describe leadership styles, general reaction patterns of passengers and crew in the survival craft	L	●
6.1.2	Describe how to monitor the condition of people onboard and how to respond (including motivating, encouraging and re-assuring)	L	●
6.1.3	Demonstrate establishing watchkeeping routines	P2	●
6.1.4	Demonstrate providing appropriate updates of the status of the craft to the rescue authority	P2	●
6.1.5	Describe how to recognize and reduce stress in self and others	L	●
6.2	***Organization***		
6.2.1	Describe determining the "safe area"	L	●
6.2.2	Describe the effects of weather conditions on the safety and detectability of Personnel and survival craft	L	●
6.2.3	Demonstrate how to prepare the survival craft to withstand different weather conditions	P2	●
6.2.4	Describe how to organize equipment to be used onboard the survival craft	L	●
6.2.5	Describe establishing sanitation procedures onboard the survival craft	L	●
6.2.6	Describe establishing routines to ration and issue anti-seasickness tablets, water and emergency food	L	●
6.2.7	Describe collecting and storing rainwater	L	●
6.3	***Habitability***		
6.3.1	Describe habitability strategies (related to temperature, air quality, motion sickness, waste management)	L	●
6.3.2	Describe the challenges of casualty management in the survival craft	L	●
6.3.3	Describe the signs of hypothermia, hyperthermia, carbon dioxide poisoning, dehydration	L	●
6.3.4	Describe how to prevent or slow down the development of hypothermia	L	●
6.3.5	Describe how to minimize dehydration in hot conditions	L	●
6.4	***Rescue by Vessel***		
6.4.1	Describe the risks involved in transferring people from a survival craft to a ship	L	●
6.4.2	Identify a rescue zone on a ship	L	●
6.4.3	Describe different ways of transferring people from a survival craft to an FRB	L	●
6.4.4	Describe prioritizing of the transfer of people	L	●
6.4.5	Describe how to transfer a person in a stretcher from a survival craft to an FRB	L	●
6.5	***Rescue by Helicopter***		
6.5.1	Describe cooperation with a helicopter, following their instructions with reference to maintaining a course to steer and boat handling	L	●
6.5.2	Describe the importance of grounding the winch-cable during helicopter -operations and how this is achieved	L	●
6.5.3	Describe methods used by SAR- helicopters to transfer a casualty from the water or from a boat	L	●
6.6	***Beaching***		
6.6.1	Describe the risks involved in beaching a survival craft	L	●
	Operating Davit-Launched Life rafts		
7.1	***Davit-launched Life rafts***		
7.1.1	Describe the operation and arrangements of a single-fall davit, used to launch davit-launched life rafts	L	●

ID	Competence Statement	Competence Type	Initial Course
7.1.2	Describe the operation of the remote-brake release mechanism of a single-fall davit	L	●
7.1.3	Describe the function of all lines found on a davit-launched raft and its container	L	●
7.1.4	Demonstrate preparation of a davit-launched life raft for boarding	P2	●
7.1.5	Demonstrate how to board and launch a davit-launched life raft	P2	●
	Marine Escape Chute		
8.1	***Marine Escape Chute***		
8.1.1	Describe role of the coxswain in coordinating the operation of marine escape chute (including life raft boarding and surface rescue)	L	●
8.1.2	Describe the role of the coxswain in the coordination of any other abandonment options available on their Marine Installation or Structure	L	●
9	**Operating Survival Crafts in Ice**		
9.1	***Survival Craft in Ice Prone Waters***		
9.1.1	Describe the precautions that must be considered when operating survival craft in low temperatures or ice prone waters.	L	●
9.1.2	Describe the precautions to take when abandoning a facility in ice covered waters. (e.g. – ice in launching area, keel cooler/rudder/propeller damage)	L	●
9.1.3	Describe the effects of ice accretion on board a survival craft (e.g., stability, vision)	L	●
9.1.4	Describe the precautions while maneuvering in sea ice.	L	●
9.1.5	Describe the actions to take in the event that a survival craft becomes beset in ice.	L	●
9.1.6	Describe the actions to take when being escorted through ice by a ship	L	●
9.1.7	Describe additional precautions to be taken when towing or being towed through ice (speed, constant monitoring of the towed vessel by the towing vessel)	L	●

17.1 Competence Table - Survival Craft Coxswain - Recurrent

Table 5

ID	Competence Statement	Competence Type	Recurrent
1	***Emergency Organization on Board***		
1.1	***Tasks and Responsibilities***		
1.1.1	Describe the roles, tasks and responsibilities of the survival craft-coxswain team in an abandonment, emphasis on the leadership role of the coxswain before and after the call for abandonment	L	●
2	**Survival Craft Design & Components**		
2.1	***General***		
2.1.1	Identify the role of the coxswain in the maintenance requirements for survival craft	L	●
2.2	***Hull***		
2.2.1	Demonstrate a visual integrity-check of the hull and fittings	P2	●
2.2.2	Demonstrate a check of the condition of the bilges / engine compartment (presence of oil/water, etc.)	P2	●
2.2.3	Demonstrate how to empty the bilges of a survival craft	P2	●
2.3	***Engine***		
2.3.1	Demonstrate locating the fuel, oil pressure and temperature gauges and RPM-indicator, as appropriate	P2	●
2.3.2	Demonstrate how to test the proper operation of the throttle, as appropriate	P2	●
2.3.3	Demonstrate how to interpret the oil-pressure and temperature readings when the engine is running	P2	●
2.3.4	Demonstrate pre-start engine-checks (e.g., oil-level, fuel, batteries, accumulators, etc.)	P2	●
2.3.5	Perform starting and stopping the engine	P1	●
2.3.6	Demonstrate the secondary starting method on the survival craft	P2	●
2.3.7	Identify the cooling problems which may occur in extreme cold or warm waters (including in ice)	L	●
2.4	***Propeller & Rudder***		
2.4.1	Demonstrate a visual check of the condition of the propeller and rudder	P2	●
2.4.2	Demonstrate proper rudder operation and emergency rudder operation	P2	●
2.5	***Release System Operation***		
2.5.1	Describe the working principle of release hooks and their safety features in general	L	●
2.5.2	Describe the difference between off-load release and on-load release (including davit-launch life raft release system)	L	●
2.5.3	Describe in which situations to use the on-load release feature of a release system	L	●
2.5.4	Describe the common causes of “un-intentional releases” of various hook types	L	●
2.5.5	Perform the safe operation of a hook release system	P1	●
2.5.6	Describe hook release failure and emergency release systems (including secondary fall prevention systems)	L	●
2.6	***Fire & Gas Protection***		
2.6.1	Describe the importance of closing the survival craft's ventilation, hatches and other openings in case of an abandonment in a fire and/or gas situation (including pressure vacuum valves)	L	●
2.6.2	Identify the external water-spray system activation mechanism on a survival craft and when it is to be activated; also noting hazards (e.g., reduced visibility, stability, etc.)	L	●

ID	Competence Statement	Competence Type	Recurrent
2.6.3	Describe the function of the compressed air system on a survival craft, its limitations and when it is to be activated	L	●
2.6.4	Describe abandoning into a survival craft under special arrangements/conditions (e.g., H_2S, DSV)	L	●
2.6.5	Identify the activation mechanism for the compressed air system	L	●
2.6.6	Describe the buildup of CO and CO_2 and potential risks	L	●
	Inventory & Equipment		
3.1	***Emergency Equipment***		
3.1.1	Describe how and when to use a drogue or sea-anchor including the decision to break watertight integrity	L	●
3.1.2	Demonstrate the ability to stream, trip and retrieve a drogue or sea-anchor	P2	●
3.2	***Signaling Equipment / Location Aids***		
3.2.1	Demonstrate locating and mounting the radar-reflector and antenna	P3	●
3.2.2	Describe the pyrotechnic signaling equipment found in a survival craft and when to use	L	●
3.2.3	Describe the non-pyrotechnic signaling equipment found in a survival craft and when to use	L	●
3.2.4	Describe when to use a Search and Rescue Transponder (SART)	L	●
3.2.5	Describe when to activate an Emergency Position Indicating Radio Beacon (EPIRB)	L	●
3.3	***External Communications***		
3.3.1	Describe external communication tools available, and actions should loss of external communication occur	L	●
3.3.2	Perform contacting a vessel or station in the vicinity, using a VHF radio, including identification of the emergency channel	P1	●
	Launching & Recovery		
4.1	***General***		
4.1.1	Demonstrate safe operation of the winch (hoisting and lowering), both using the winch-motor as well as manually	P2	●
4.1.2	Describe the dangers of losing control of the crank-handle, how to avoid this and immediate actions should this occur	L	●
4.2	***Pre-launch Checks***		
4.2.1	Identify hazards resulting from the incident causing the need to abandon the ship/Marine Installation or Structure which may interfere with a safe launch (e.g., heel/trim, gas, oil, fire, explosions, toxicity)	L	●
4.2.2	Identify physical and environmental hazards caused by external conditions which may interfere with a safe launch	L	●
4.2.3	Describe launching considerations based on assessed hazards (e.g., radio communications, launch, wait, use secondary station)	L	●
4.2.4	Describe checking that mechanical restraints which prevent the accidental launch of the survival craft are removed (if present)	L	●
4.2.5	Describe secondary fall prevention systems used to prevent an accidental release from the falls.	L	●
4.2.6	Describe watertight integrity checks after embarkation of passengers	L	●
4.2.7	Demonstrate pre-launch checks (including verification that the brake-wire is present)	P2	●
4.2.8	Demonstrate confirmation (visual and audio) that the immediate launch area is clear and safe	P2	●
4.3	***Mustering***		
4.3.1	Describe the role of the coxswain in mustering (including Personal Protective Equipment (PPE) that should be used)	L	●
4.3.2	Describe registering missing/additional crew/passengers reporting at the muster station	L	●

ID	Competence Statement	Competence Type	Recurrent
4.3.3	Perform reporting status/headcount to command/bridge	P1	●
4.4	***Embarkation***		
4.4.1	Describe coordinating boarding, considering weight-distribution and boarding sequence (including potential for passenger operation of auxiliary equipment)	L	●
4.4.2	Describe why all crew/passengers/equipment must be properly seated/secured	L	●
4.5	***Launching***		
4.5.1	Describe the considerations for launch and release of a survival craft into a heavy seas swell (i.e., constant tension on brake, release in a trough, heading, etc.)	L	●
4.5.2	Perform launching a survival craft in a safe manner, in accordance with on board procedures	P1	●
4.6	***Recovery***		
4.6.1	Perform recovering and stowing a survival craft (including proper checks for resetting of the hooks)	P1	●
4.6.2	Identify various recovery methods	L	●
4.6.3	Demonstrate preparing the survival craft for recovery	P2	●
4.6.4	Describe the reasons for interrupting hoisting once the survival craft is clear of the water / waves (including boat steady; hydrostatic interlock reset; insert safety pins)	L	●
	Operating a Survival craft		
5.1	***Boat Control***		
5.1.1	Describe procedure used in a survival craft in rough weather (i.e., optimizing its behaviour by selecting a favorable heading, including considerations of / impact from wind, wave and swell direction)	L	●
5.1.2	Perform holding position/heave to	P1	●
5.1.3	Perform sailing on a set heading within 20 degrees, including blind steerage	P1	●
5.1.4	Perform pacing with a FRB making way, enabling a transfer of people	P1	●
5.2	***Emergency Boat Handling***		
5.2.1	Describe actions in case of engine failure or loss of propulsion at sea	L	●
5.2.2	Describe actions in case of a collision (boat, obstacle)	L	●
5.2.3	Describe the corrective actions to be taken when the steering fails	L	●
5.2.4	Perform operation of the emergency steering system and maintain a course	P1	●
5.3	***Recovery of Persons in Water***		
5.3.1	Describe the considerations for recovering person(s) in the water	L	●
5.3.2	Identify different devices that can be used to recover survivors from the water and their limitations	L	●
5.3.3	Perform casualty approach / person overboard pick-up	P1	●
5.4	***Towing***		
5.4.1	Describe in what situation towing may be considered	L	●
5.4.2	Describe the hazards of a towing operation and the safety measures to take during a tow (including the danger of breaking the watertight integrity)	L	●
5.4.3	Perform an approach to a survival craft	P1	●
5.4.4	Demonstrate connection of a tow operation (for both under tow and towing)	P2	●
5.4.5	Perform maneuvers while towing	P1	●
5.4.6	Demonstrate proper procedures for being towed	P2	●

ID	Competence Statement	Competence Type	Recurrent
	The Survival Phase		
6.1	***Management & Leadership***		
6.1.1	Demonstrate establishing watchkeeping routines	P2	●
6.1.2	Demonstrate providing appropriate updates of the status of the craft to the rescue authority	P2	●
6.2	***Organization***		
6.2.1	Describe determining the "safe area"	L	●
6.2.2	Demonstrate how to prepare the survival craft to withstand different weather conditions	P2	●
6.2.3	Describe how to organize equipment to be used onboard the survival craft	L	●
6.2.4	Describe establishing sanitation procedures onboard the survival craft	L	●
6.2.5	Describe establishing routines to ration and issue anti-seasickness tablets, water and emergency food	L	●
6.2.6	Describe collecting and storing rainwater	L	●
6.3	***Habitability***		
6.3.1	Describe habitability strategies (related to temperature, air quality, motion sickness, waste management)	L	●
6.3.2	Describe the challenges of casualty management in the survival craft	L	●
6.3.3	Describe the signs of hypothermia, hyperthermia, carbon dioxide poisoning, dehydration	L	●
6.3.4	Describe how to prevent or slow down the development of hypothermia	L	●
6.3.5	Describe how to minimize dehydration in hot conditions	L	●
6.4	***Rescue by Vessel***		
6.4.1	Describe prioritizing of the transfer of people	L	●
6.4.2	Describe how to transfer a person in a stretcher from a survival craft to an FRB	L	●
	Operating Davit-Launched Life rafts		
7.1	***Davit-launched Life rafts***		
7.1.1	Demonstrate preparation of a davit-launched life raft for boarding	P2	●
7.1.2	Demonstrate how to board and launch a davit-launched life raft	P2	●
8	**Operating Survival Crafts in Ice**		
8.1	***Survival Craft in Ice Prone Waters***		
8.1.1	Describe the precautions that must be considered when operating survival craft in low temperatures or ice prone waters	L	●
8.1.2	Describe the precautions to take when abandoning a facility in ice covered waters. (e.g., ice in launching area, keel cooler/rudder/propeller damage)	L	●
8.1.3	Describe the effects of ice accretion on board a survival craft (e.g., stability, vision)	L	●
8.1.4	Describe the precautions while maneuvering in sea ice	L	●
8.1.5	Describe the actions to take in the event that a survival craft becomes beset in ice	L	●
8.1.6	Describe the actions to take when being escorted through ice by a ship	L	●
8.1.7	Describe additional precautions to be taken when towing or being towed through ice (speed, constant monitoring of the towed vessel by the towing vessel)	L	●

18 Competence Table - Offshore Fire Fighting Training

Table 6

ID	Competence Table – OFT, OFT-R	Competence Type	OFT	OFT-R
Chemistry of Fire				
1.1	**Science of Fire**			
1.1.1	Describe energy	L	●	
1.1.2	Describe the modes of combustion: 1) non-flaming, 2) flaming	L	●	
1.1.3	Identify fire models: 1) fire triangle, 2) fire tetrahedron	L	●	●
1.1.4	Identify and describe products of combustion	L	●	
1.1.5	Describe heat transfer: 1) conduction, 2) convection, 3) radiation	L	●	
1.1.6	Identify and describe the stages of fire development	L	●	●
1.1.7	Identify, describe and emphasize the importance of recognizing Rapid Fire Development: 1) flashover, 2) backdraft, 3) smoke explosion	L	●	●
1.1.8	Identify and describe fire behavior and how it relates to firefighting operations	L	●	●
Fire Prevention				
2.1	**Fire Prevention**			
2.1.1	Describe how good housekeeping contributes to fire-prevention such as including common causes of fire	L	●	
2.1.2	Describe the importance of good maintenance in relation to prevention	L	●	
Fire Suppression Equipment				
3.1	**Portable Extinguishers**			
3.1.1	Identify and describe the classes of fire: 1) class A, 2) class B, 3) class C, 4) class D, 5) class K and provide examples of classes of fires	L	●	●
3.1.2	Identify and describe the types of portable fire extinguishers	L	●	●
3.1.3	Identify and describe the extinguishing agent characteristics	L	●	●
3.1.4	Describe the operational characteristics of portable fire extinguishers	L	●	●
3.1.5	Identify how to select the appropriate portable fire extinguishers	L	●	●
3.1.6	Describe proper procedures for using portable fire extinguishers including pre-use inspection	L	●	●
3.1.7	Describe how a semi-portable extinguisher is primed and used	L	●	●

ID	Competence Table – OFT, OFT-R	Competence Type	OFT	OFT-R
3.1.8	Demonstrate how a semi-portable extinguisher is primed and used. *Note: demonstrating the semi-portable extinguisher using short blasts in a small fire pan is acceptable.*	P2	●	●
3.2	**Practical Evaluation**			
3.2.1	Demonstrate all types of fire extinguishers (stored pressure water extinguisher, dry chemical extinguisher, a carbon dioxide extinguisher and a foam fire extinguisher) during a live fire practical	P2	●	●
3.2.2	Perform selecting the correct extinguisher (a stored pressure water extinguisher, dry chemical extinguisher, a carbon dioxide extinguisher or a foam fire extinguisher) safely for a fire and demonstrate properly attempting to or extinguishing a fire safely	P1	●	●
3.3	**Fire Detection Systems**			
3.3.1	Describe the functions of the most common smoke detectors, heat detectors and flame detectors	L	●	
3.3.2	Identify and describe what spaces and compartments where you would most likely find the various types of detectors used in these areas	L	●	
3.3.3	Identify and describe fire alarm activation systems and how they operate (e.g., time delays in general alarms, GPA - general platform alarm; ESD - Emergency Shutdown - starts automatically shutting down systems)	L	●	●
3.3.4	Identify and describe passive fire protection on the facilities (e.g., blast walls, etc.)	L	●	●
3.4	**Fixed Fire Suppression Systems**			
3.4.1	Describe fixed fire suppression systems and characteristics of different systems including but not limited to carbon dioxide systems, halon replacement systems, fine water mist systems, dry and wet chemical systems, galley systems, manual release/operating systems, sprinkler systems, deluge sprinkler system	L	●	
3.4.2	Identify and describe automated and manual release/operating systems	L	●	
3.4.3	Identify and describe safety concerns for fixed fire suppression systems	L	●	●
3.4.4	Identify and describe emergency actions for fixed fire suppression systems	L	●	

ID	Competence Table – OFT, OFT-R	Competence Type	OFT	OFT-R
3.5	**Fire Station Connections**			
3.5.1	Be aware of/familiar with Fire Station Connections/Hydrants and any cold weather climate precautions and controls needed	L	●	●
3.5.2	Identify and describe the equipment and appliances required to utilize the fire hose station/connections	L	●	
Firefighter Personal Protective Equipment (PPE)				
4.1	**Firefighter PPE**			
4.1.1	Identify and describe the components of firefighter personal protective equipment (PPE)	L	●	
4.1.2	Identify and describe the limitations and safety considerations for PPE	L	●	
4.1.3	Describe the inspection procedures for PPE	L	●	
4.1.4	Describe care, cleaning and storage of PPE	L	●	
4.2	**Self-Contained Breathing Apparatus (SCBA)**			
4.2.1	Identify respiratory hazards	L	●	
4.2.2	Describe the proper procedures for the use of an SCBA control board	L	●	
4.2.3	Identify the components of a Self-Contained Breathing Apparatus (SCBA)	L	●	
4.2.4	Identify and describe wearer limitations	L	●	●
4.2.5	Identify and describe equipment limitations	L	●	●
4.2.6	Identify and describe safety precautions and features for SCBA use	L	●	●
4.2.7	Describe how to inspect an SCBA (including voice communications on the mask)	L	●	●
4.2.8	Describe various methods for donning and doffing SCBA	L	●	
4.2.9	Describe how to replace a breathing air bottle (BA)	L	●	●
4.2.10	Describe care, cleaning and storage of SCBA	L	●	
4.3	**Personal Alert Safety System (PASS)**			
4.3.1	Describe the Personal Alert Safety System (PASS)	L	●	●
4.3.2	Describe how to test all operating modes for proper operation	L	●	●
4.3.3	Describe how to test or acknowledge for low battery signal	L	●	●
4.4	**Practical Evaluation**			
4.4.1	Perform the use of a PASS alarm	P1	●	●
4.5	**Practical Evaluation**			
4.5.1	Perform donning of PPE	P1	●	●

ID	Competence Table – OFT, OFT-R	Competence Type	OFT	OFT-R
4.5.2	Perform safety checks of SCBA prior to donning	P1	●	●
4.5.3	Perform appropriate action for low air alarm	P1	●	●
4.5.4	Perform a test to ensure a proper seal of the face mask	P1	●	●
4.5.5	Perform various methods for donning SCBA	P1	●	●
4.5.6	Perform replacing an air cylinder using the buddy system	P1	●	●
4.5.7	Perform testing of all operating modes and testing or acknowledging a low battery signal on a PASS alarm	P1	●	●
4.5.8	Demonstrate an escape using an SCBA set from a no visibility environment, while using the proper technique and establishing reference points	P2	●	●
4.5.9	Demonstrate the proper procedures using the SCBA control board; and when at the facility make themselves familiar with procedures at that facility	P2	●	●
4.5.10	Perform tagging in and out on the SCBA control board	P1	●	●
Fire Fighting Equipment and Techniques				
5.1	**Fire Hose**			
5.1.1	Describe the common types of hoses, hose diameters, hose couplings and their use	L	●	
5.1.2	Describe the use of fixed monitor systems and portable monitor systems, including proper application of systems	L	●	
5.2	**Hose Appliances and Tools**			
5.2.1	Identify and describe hose appliances and types of tools that are used in conjunction with appliances and hoses	L	●	
5.2.2	Describe care, cleaning and storage of appliances and tools	L	●	
5.3	**Practical Evaluation**			
5.3.1	Demonstrate proper procedures for preparing a hose for use	P2	●	●
5.3.2	Demonstrate proper procedures in utilizing hose appliances and equipment	P2	●	●
5.4	**Fire Streams**			
5.4.1	Describe the extinguishing properties of water	L	●	●
5.4.2	Identify and describe the properties of steam	L	●	●
5.4.3	Identify and describe the effects of steam patterns on vaporization at ceiling level	L	●	●
5.4.4	Describe the types of fire patterns and how and when to utilize a specific pattern: 1) solid stream, 2) fog stream, 3) straight stream, 4) broken stream	L	●	●
5.5	**Fire Stream Nozzles**			

ID	Competence Table – OFT, OFT-R	Competence Type	OFT	OFT-R
5.5.1	Describe the differences and uses of nozzles and techniques: 1) straight tip, 2) spray nozzle, 3) foam nozzle, 4) monitor nozzle	L	●	
5.5.2	Describe the considerations for using 3D nozzle techniques: 1) short pulsation, 2) medium pulsation, 3) long pulsation	L	●	●
5.5.3	Describe 3D defensive action - painting (surface cooling)	L	●	●
5.5.4	Describe 3D offensive attack - penciling	L	●	●
5.6	**Handling Hose Lines**			
5.6.1	Demonstrate how to safely deploy a pre-connected attack hose line	P2	●	●
5.6.2	Demonstrate how to safely deploy larger diameter hose lines	P2	●	●
5.7	**Advancing Hose Lines**			
5.7.1	Demonstrate proper procedures when advancing a charged hose line and discuss safety considerations	P2	●	●
5.8	**Operating Attack Hose Lines**			
5.8.1	Describe the two-fire fighter method (buddy system) for an attack hose line	L	●	●
5.9	**Operating Large Diameter Hose Lines (LDH)**			
5.9.1	Describe the one fire fighter method for operating large diameter hose lines	L	●	●
5.9.2	Describe the two-fire fighter method for operating LDH	L	●	●
5.10	**Controlling a Loose Hose Line**			
5.10.1	Describe the methods to control loose hose lines 1) shut water source off, or 2) kink hose – this method does not apply to LDH	L	●	●
5.11	**Practical Evaluation**			
5.11.1	Demonstrate proper procedures advancing hose into a compartment during a live fire scenario	P2	●	●
5.11.2	Demonstrate proper procedures advancing hose up and down a stairwell during live fire scenario	P2	●	●
5.11.3	Observe proper procedures advancing hose up and down a ladder (e.g., instructor with fall protection or video)	P3	●	●
5.11.4	Demonstrate proper procedures operating an LDH	P2	●	●
5.11.5	Demonstrate the set-up of hose and operate a portable monitor system and operate a fixed monitor system	P2	●	●
5.12	**Fire Fighting Foam**			
5.12.1	Describe how firefighting foam extinguishes fires	L	●	

ID	Competence Table – OFT, OFT-R	Competence Type	OFT	OFT-R
5.12.2	Describe how firefighting foam prevents ignition	L	●	
5.12.3	Describe foam proportioning and other types of foam equipment	L	●	
5.12.4	Identify that most class A and B foam concentrates are mildly corrosive *Note: training providers are moving from AFFF for environmental and occupational health and safety reasons. Care needs to be taken in selecting a safe replacement product to provide the fidelity to teach the students the competencies.*	L	●	
5.12.5	Describe the characteristics of methanol fire and how to contain and extinguish with proper protocols. What extinguishing agents can be used and their characteristics when utilizing extinguishing agents, for example; dry chemical extinguisher, Alcohol Resistant Aqueous Film Forming Foam (AR-AFFF), and water)	L	●	
5.13	**Practical Evaluation**			
5.13.1	Demonstrate extinguishment of a methanol fire	P2	●	●
5.14	**Foam Application Techniques**			
5.14.1	Describe the various application techniques and when to use: 1) roll on method, 2) bank down method, 3) rain down method	L	●	●
5.15	**Practical Evaluation**			
5.15.1	Demonstrate using proportioning equipment and tools for foam application (team task) during live fire practicals	P2	●	●
5.15.2	Demonstration of proper foam application method and demonstrate proper procedures utilizing the method they have chosen (team task) during live fire practicals	P2	●	●
Communications				
6.1	**Communications**			
6.1.1	Describe the various types of radio communications at an emergency incident: 1) base stations, 2) portable radios, 3) runners, and 4) voice command systems	L	●	●
6.1.2	Describe radio limitations that may impact the emergency	L	●	●
6.1.3	Describe the ABC's of good communication: 1) accurate, 2) brief, 3) concise	L	●	●
6.1.4	Identify and describe communications on route	L	●	●
6.1.5	Identify and describe communications on arrival	L	●	●
6.1.6	Identify and describe progress report (tactical response team report)	L	●	●

ID	Competence Table – OFT, OFT-R	Competence Type	OFT	OFT-R
6.1.7	Describe effective communication utilizing pre-determined bench marks (All Clear; Fire Under Control/Contained; Fire Out/Fire Completely Extinguished; Loss Stopped) which are in common use and understood in the industry (See description of the benchmarks below)	L	●	●
6.2	**Practical Evaluation**			
6.2.1	Demonstrate communications in the field	P2	●	●
Fire Pre-planning				
7.1	**Fire Pre-Planning**			
7.1.1	Describe the various types of fire emergencies that could occur offshore: 1) fire or no fire, 2) rescue, 3) hazardous materials, 4) fuel spills, 5) high or low impact helicopter crashes	L	●	
7.1.2	Identify and describe fire areas of high probability and accessibility to these areas, also climatic and weather conditions	L	●	
7.1.3	Identify and describe available personal and fire equipment	L	●	
7.1.4	Describe firefighting operations strategy and tactics	L	●	
7.1.5	Identify and describe common tactical priorities: 1) rescue, 2) boundaries/exposures, 3) confinement, 4) extinguishment, 5) overhaul, 6) adjacent rounds, 7) ventilation	L	●	●
7.1.6	Describe the Incident Command Structure and the responsibilities and duties of all involved	L	●	
7.2	**Practical Evaluation**			
7.2.1	Demonstrate preparing an emergency action plan with strategies and tactics (table top exercise)	P2	●	
Fire Fighting Procedures				
8.1	**Mustering**			
8.1.1	Describe the importance of mustering at your assigned location for the fire team or the alternate muster point in the event the initial muster point is compromised	L	●	
8.2	**Fire Attack**			
8.2.1	Describe the importance of conducting a *size up* on arrival: 1) what happened, 2) what is happening, 3) what is going to happen	L	●	●
8.2.2	Describe the importance of situational awareness (i.e., what's going on around)	L	●	●

ID	Competence Table – OFT, OFT-R	Competence Type	OFT	OFT-R
8.2.3	Describe the considerations of operational mode: 1) offensive, 2) defensive, 3) combination	L	●	●
8.2.4	Describe boundaries and boundary cooling procedures	L	●	●
8.2.5	Describe the safety practices: 1) PPE, 2) buddy system, 3) protective fire stream practices, 4) consider means of escape, 5) Personnel Accountability Report (PAR)	L	●	●
8.3	**Practical Evaluation**			
8.3.1	Perform proper techniques of fire attack in a live fire scenario	P1	●	●
8.4	**Search and Rescue**			
8.4.1	Describe search safety guidelines	L	●	
8.4.2	Describe search preparations and search and rescue equipment	L	●	
8.4.3	Describe search modes: 1) primary, 2) secondary	L	●	
8.4.4	Describe search priorities: 1) most severely threatened, 2) largest number of victims, 3) remainder in hazard zone, 4) exposures	L	●	●
8.4.5	Describe systematic patterns and methods: 1) oriented search method, 2) wide arm search method, 3) thermal imaging camera	L	●	●
8.4.6	Describe self-evacuation (i.e., going to a safe space)	L	●	
8.4.7	Describe shelter in place	L	●	
8.4.8	Describe rescue and identify various methods of rescue: 1) incline drag, 2) webbing drag, 3) moving a victim onto a litter	L	●	●
8.5	**Practical Evaluation**			
8.5.1	Perform search methods with limited visibility	P1	●	●
8.5.2	Demonstrate rescue techniques with limited visibility	P2	●	●
8.6	**Fire Team Member Self-Survival (Person Down - Individual in need of assistance)**			
8.6.1	Identify and describe prevention-based survival techniques	L	●	●
8.6.2	Identify and describe Person Down and self-rescue techniques	L	●	●
8.6.3	Describe how to recognize potential types of Person Down scenarios	L	●	●
8.6.4	Describe the Person Down scenarios: 1) name, 2) location, 3) resources needed, 4) situation	L	●	●
8.6.5	Describe the importance of remaining calm for air management	L	●	●
8.6.6	Describe several survival actions: 1) remain in place, 2) seeking safe haven, 3) escape, 4) controlling the fire	L	●	●

ID	Competence Table – OFT, OFT-R	Competence Type	OFT	OFT-R
8.7	**Practical Evaluation**			
8.7.1	Demonstrate proper communication, survival techniques and appropriate actions for a Person Down scenario	P2	●	●
8.8	**Ventilation**			
8.8.1	Identify and describe the principles of ventilation	L	●	
8.8.2	Describe why to ventilate and when to ventilate	L	●	
8.8.3	Describe safety considerations prior to ventilation	L	●	
8.8.4	Describe safety considerations during ventilation	L	●	
8.8.5	Describe the various methods of ventilation: 1) vertical, 2) horizontal, 3) combination, 4) assisted, 5) positive pressure, 6) hydraulic ventilation	L	●	●
8.8.6	Describe briefly the facility's/vessel's ventilation systems and the advantages of utilizing the system	L	●	●
8.9	**Practical Evaluation**			
8.9.1	Describe selecting proper ventilation method and demonstrate proper procedures utilizing the method they have chosen supported by visual aids such as a video or slides.	P2	●	●
8.10	**Overhaul/Extension Checks**			
8.10.1	Describe the process of overhaul/extension checks	L	●	●
8.10.2	Describe the practice of minimizing damage and considerations of techniques to minimize water damage	L	●	●
8.10.3	Describe the preservation of evidence/protecting the scene	L	●	●
8.11	**Practical Evaluation**			
8.11.1	Demonstrate as part of a group overhaul/extension checks	P2	●	●
8.12	**Post-Fire Activities**			
8.12.1	Describe the duties of a fire watch/sentry including security, preservation of evidence/protecting the scene	L	●	●
8.12.2	Describe that all resources must be replenished, replaced, restored, cleaned and inspected for operational readiness	L	●	●
8.12.3	Describe what a debriefing is and the importance of conducting a debriefing	L	●	●
8.13	**Practical Evaluation**			
8.13.1	Demonstrate the next steps after the fire is extinguished: post fire watch and replenish resources for operational readiness	P2	●	●
Helicopter Fire Fighting and Rescue				
9.1	**Helicopter Operational Dangers**			

ID	Competence Table – OFT, OFT-R	Competence Type	OFT	OFT-R
9.1.1	Describe the general duties of aircraft rescue firefighting team	L	●	●
9.1.2	Describe the various methods of communication under normal and emergency situations 1) radio contact, 2) hand signals for emergency communications	L	●	●
9.1.3	Identify hazards that relate to helideck operations. Fire Team to have situational awareness and identify any obstructions or hazards	L	●	●
9.1.4	Describe aircraft construction and components	L	●	
9.1.5	Identify helicopter danger areas	L	●	●
9.1.6	Describe materials and component hazards such as composite materials, magnesium, fuels, hydraulic systems. Ensure aircraft and surrounding area is safe prior to investigating any type of hazard on or near the aircraft.	L	●	●
9.1.7	Describe low and high impact landings	L	●	
9.1.8	Describe the types of helicopter non-fire emergencies (e.g., mechanical, thermal runaway on battery, injured personnel, a fuel spill on a helideck)	L	●	
9.2	**Fire Control and Extinguishment**			
9.2.1	Identify and describe the risks of aircraft incidents related to the OFT	L	●	●
9.2.2	Describe the importance of familiarity with the aircraft that the facility or vessel employ	L	●	
9.2.3	Describe the primary and secondary extinguishing agents available on the facility or vessel	L	●	
9.2.4	Describe extinguishing techniques and priorities (i.e., rescue, extinguishment)	L	●	●
9.2.5	Describe pre-incident planning for any aircraft incident and discuss operating guidelines	L	●	
9.2.6	Identify and describe the roles and responsibilities of all concerned 1) incident command, 2) helicopter landing officer (HLO), 3) helideck team leader, 4) helideck firefighting team	L	●	
9.3	**Considerations for Initial Fire Attack**			
9.3.1	Identify and describe size-up/the important factors to be considered by the initial attack team 1) actions required, 2) additional support, 3) wind, 4) helideck configurations, 5) wreckage (including helicopter stability considerations), 6) survivors, 7) hazardous areas	L	●	●
9.3.2	Identify and describe the primary goal, controlling fire to establish escape or rescue corridors	L	●	●

ID	Competence Table – OFT, OFT-R	Competence Type	OFT	OFT-R
9.3.3	Describe the procedures for insulating and isolating the occupied areas of the aircraft	L	●	●
9.3.4	Identify and describe the methods to remove casualties to a safe refuge or triage area	L	●	●
9.4	**Gaining Access into Aircraft**			
9.4.1	Describe priorities to gain access (easiest and quickest) including stabilization of the helicopter	L	●	●
9.4.2	Describe how exit doors and windows operate and open	L	●	●
9.4.3	Identify and describe forcible entry equipment and tools	L	●	●
9.4.4	Describe forcible entry techniques and procedures	L	●	●
9.4.5	Identify and describe considerations for limited evacuation options depending on the position of the helicopter	L	●	●
9.4.6	Identify the priorities for removal of occupants 1) most severely threatened, 2) largest numbers, 3) remainder in hazardous area, 4) exposures	L	●	●
9.5	**Rescue Operations**			
9.5.1	Identify and describe emergency shut down procedures	L	●	●
9.5.2	Describe various styles of seat harnesses for flight crew and passengers	L	●	
9.5.3	Describe two-person minimum for rescue operations	L	●	
9.5.4	Describe search techniques (primary and secondary search)	L	●	●
9.6	**Overhaul Procedures for Helicopter**			
9.6.1	Identify and describe equipment and tools for overhaul	L	●	●
9.6.2	Describe overhaul and inspection procedures for adjacent areas	L	●	●
9.6.3	Describe how care should be taken to preserve the original configuration for investigation purposes	L	●	●
9.7	**Practical Evaluation**			
9.7.1	Demonstrate correct procedures for any aircraft emergency incident and identify hazards	P2	●	●
9.7.2	Demonstrate procedures for fire control and extinguishment	P2	●	●
9.7.3	Demonstrate procedures utilizing forcible entry techniques for gaining access during an exercise	L	●	●
9.7.4	Demonstrate procedures for extricating flight crew and passengers	P2	●	●
9.7.5	Demonstrate overhaul procedures during an exercise	P2	●	●

ID	Competence Table – OFT, OFT-R	Competence Type	OFT	OFT-R
9.7.6	Describe proper use of all equipment and tools related to aircraft firefighting and rescue *Note - It is the responsibility of the operator to provide training for any other equipment available on site.*	L	●	●

19 Table 7 CAP 437 Rescue Equipment List

Table 1: Rescue equipment – crash box with breakable tie on the lid	
Adjustable wrench	1
Rescue axe, large (non-wedge or aircraft type)	1
Cutters, bolt	1
Crowbar, large	1
Hook, grab or salving	1
Hacksaw (heavy duty) and six spare blades	1
Blanket, fire resistant	1
Ladder (two-piece)*	1
Life line (50 mm circumference x 15 m in length) plus rescue harness	1
Pliers, side cutting (tin snips)	1
Set of assorted screwdrivers	1
Harness knife and sheath or harness cutters**	**
Man-Made Mineral Fibre (MMMF) Filter masks**+	**
Gloves, fire resistant**	**

For access to casualties in an aircraft on its side.

** This equipment is required for each helideck crew member.

Consideration should be given to providing a stretcher / first aid kit in the inventory of rescue equipment. To ensure suitability for purpose, rescue equipment that meets relevant national standards should be provided

CAP 437 Rescue Equipment – practical exercise examples

The basic hand tools that are in the rescue kit can be effective forcible entry tools. Like all tools selected, they must be used properly for a safe and effective entry. Misuse or improper techniques can result in delaying entry while promoting a hazardous situation that could result in injury.

Demonstrate different techniques with the rescue axe. Some suggestions on how to use tools effectively and safely include:
-deliver an impact with sufficient force to break a lock
-drive a wedge or strike another tool

Demonstrate different techniques with prying tools crowbar. Some suggestions on how to use tools effectively and safely include:
-how to provide leverage and a mechanical advantage to widen an opening
-how to pry and pull with a crowbar

These are two examples for each tool, the training Providers can add other techniques they feel would support the trainees.

Understanding the functions of the other tools can be discussed so the trainees have some knowledge on how to incorporate them in a forcible entry situation.

20 Competence Table – Fire Team Lead

ID	Competence Statement	Competence Type	FTL
1.1	**Fire Team Lead Role and Responsibilities**		
1.1.1	Describe the role and responsibilities of Fire Team Lead and the hierarchy of command for an incident (i.e., hierarchy of command including on scene command) (depending on the installation could be on scene command or deputy on scene command)	L	●
1.1.2	Describe the responsibilities of the Fire Team and other emergency resources available	L	●
1.1.3	Describe the principals of effective leadership skills for a Fire Team Lead	L	●
1.1.4	Identify safety precautions prior, during and after securing the incident	L	●
1.1.5	Describe sectoring and the importance of assigning second in command (2ic)	L	●
1.1.6	Identify and describe the roles of executing an emergency response plan	L	●
1.1.7	Describe effective communication utilizing pre-determined bench marks (All Clear; Fire Under Control/Contained; Fire Out/Fire and Completely Extinguished) which are in common use and understood in the industry (See description of the bench marks below)	L	●
1.2	**Preparing for an Emergency Incident**		
1.2.1	Describe the importance of pre-incident planning	L	●
1.2.2	Describe the importance of being well-versed and competent with the layout of the vessel and helicopter	L	●
1.2.3	Describe the importance of being well-versed and competent with fixed and mobile firefighting systems and equipment	L	●
1.2.4	Describe the requirements for proper Personal Protective Equipment for emergency incidents	L	●
1.2.5	Describe emergency response procedures/ Standard Operating Guidelines (SOGs)	L	●
1.2.6	Describe how to set priorities in response to the incident (e.g., RECEO Rescue-Exposures-Confine the fire-Extinguish-Overhaul; Rescue, Exposures, Contain, Shutdown)	L	●
1.2.7	Identify and describe the importance of monitoring the Fire team throughout the entire emergency incident. Examples: 1) air consumption, 2) mental and physical fatigue	L	●

ID	Competence Statement	Competence Type	FTL
1.2.8	Describe effective communication with Incident Command (IC), Helicopter Landing Officer (HLO) and Helicopter Pilot utilizing hand signals and bench marks for Command	L	●
1.2.9	Describe the importance of clear and concise instruction when delegating tasks during an emergency response	L	●
1.2.10	Describe the importance of monitoring and assessing changes during the emergency to take corrective actions (Situational Awareness)	L	●
1.2.11	Describe how to initiate or request assistance for OFT emergency (e.g., person down or team down); describe possible strategies and tactics and how to apply them (e.g., shelter in place; escape/evacuate)	L	●
1.3	**Understanding Strategies and Tactics (Processes)**		
1.3.1	Identify and describe the responsibilities and priorities of Incident Command (ECC includes OIM, Safety Officer, Drilling Supervisor, onshore) and CCR) and Helicopter Landing Officer	L	●
1.3.2 A	Identify and describe common tactics - **FTL Offshore (Process)** 1) Size-up: evaluation of factors at the incident; 2) Rescue; 3) Boundaries/Exposures; 4) proper advancement to fire; 5) Confinement; 6) Extinguishment; 7) Overhaul; 8) Posting Sentry; 9) Adjacent compartment rounds; 10) Ventilation; and 11) Post Operation Considerations	L	●
1.3.2 B	Identify and describe common tactics - **FTL Helicopter (Process)** 1) Size-up: evaluation of factors at the incident; 2) Initial Fire Attack; 3) Fire Control and Rescue Path; 4) Gaining Access into Helicopter; 5) Rescue Operations; 6) Extinguishment-extension of fire control phase; 7) Overhaul; and 8) Post Operation Considerations	L	●
1.3.3	Describe operational modes 1) Offensive mode (rescue/fire attack); and 2) Defensive mode (boundary cooling/protect exposures)	L	●
1.3.4	Identify and describe progress reports 1) Location of incident; 2) Type of Incident; 3) Conditions/Size up; 4) What actions are the fire team undertaking; and 5) What are the needs to mitigate incident	L	●
1.3.5	Identify and describe personnel rescue and casualty handling priorities 1) Most severely threatened; 2) Largest Number of Victims; 3) Remainder of Hazard Zone; and 4) Exposures	L	●
1.4	**Essential responsibilities while leading the Fire Team in Practical Evaluations**		

ID	Competence Statement	Competence Type	FTL
1.4.1	Demonstrate through a table top exercise the proper response procedures/ Standard Operating Guidelines for the particular incident to which the Fire Team is responding	P2	●
1.4.2	Perform leading on the fire field the proper response procedures/ Standard Operating Guidelines for the particular incident to which the Fire Team is responding	P1	●
1.4.3	Demonstrate through a table top exercise the appropriate priorities for the emergency	P2	●
1.4.4	Perform leading on the fire field the appropriate priorities for the emergency	P1	
1.4.5	Demonstrate through a table top exercise the effective communication with Command and or Helicopter Landing Officer, Helicopter Pilot with clear and concise instruction also when delegating tasks to the Fire Team during the emergency	P2	●
1.4.6	Perform leading on the fire field the effective communication with Command and or Helicopter Landing Officer, Helicopter Pilot with clear and concise instruction also when delegating tasks to the Fire Team during the emergency	P1	●
1.4.7	Perform monitoring the Fire team throughout the entire emergency incident. Examples: 1) air consumption; 2) mental and physical fatigue	P1	●
1.4.8	Perform continually monitoring for hazards and take corrective actions if required	P1	●
1.4.9	Perform appropriate strategies and tactics when requesting assistance for OFT emergency has been initiated	P1	●
Module A - Offshore Fire Team Lead			
2.1	**Practical Evaluation**		
2.1.1	Demonstrate, by conducting a minimum of 2 Table Top exercises, leading a full scenario from start to finish to cover processes and fire tactics utilizing bench marks and concise communications	P2	●
2.1.2	Demonstrate leading a fire scenario - personnel berthing quarters fire (1 room fire involvement)	P2	●
2.1.3	Demonstrate leading a fire scenario - large area fire (interior or exterior), Fire Team member lost, *initiate request for assistance for an OFT emergency* (Simulate lost Fire Team member utilizing PASS Alarm to notify Fire Team) with search and rescue techniques with members of Fire Team and provide safe extrication for member (limited visibility)	P2	●
2.1.4	Demonstrate leading a fire scenario – production or machinery space fire including ascending or descending stairs as part of the fire attack	P2	●

ID	Competence Statement	Competence Type	FTL
2.1.5	Demonstrate leading a fire scenario – simulated compressed gas fire utilizing an inert shut off valve to extinguish	P2	●
	Note: The FTL has to lead at least 2 fire scenarios as a P1 and participate in the other scenarios as a P2. *These Module A practical exercises are conducted during the OFT/OFT-R courses. What does the FTL have to demonstrate? Their role is to be in command and make the decisions. Can they prioritize between rescue and fire fighting? The exercises must be designed to demonstrate these competencies.*		
Module B: Helicopter Fire Team Lead			
3.1	**Practical Evaluation**		
3.1.1	Demonstrate through a minimum of 2 Table Top exercises leading a full scenario from start to finish to cover processes and helicopter fire tactics utilizing bench marks and concise communications with appropriate personnel	P2	●
3.1.2	Demonstrate leading a fire scenario - helicopter crash with interior fire utilizing search and rescue techniques including a rescue with limited visibility (minimum two-person rescue team)	P2	●
3.1.3	Demonstrate leading a fire scenario - helicopter crash with exterior and interior fires, utilizing fire control methods and maintaining a rescue path with foam application techniques. Helicopter FTL describes the appropriate extrication technique (as it can't be demonstrated) and the OFT performs a search and rescue. (minimum two-person rescue team) *Note: training providers are moving from AFFF for environmental and occupational health and safety reasons. Care needs to be taken in selecting a safe replacement product to provide the fidelity to teach the students the competencies.*	P2	●
	Note: The FTL has to lead 1 fire scenario as a P1 and participate in the other scenario as a P2. Do the training providers think the FTL should lead 1 or 2 fire scenarios? *Note: These Module B practical exercises are conducted during the OFT/OFT-R courses. What does the FTL have to demonstrate? Their role is to be in command and make the decisions. Can they prioritize between rescue and fire fighting? The exercises must be designed to demonstrate these competencies.*		

20.1 Bench Marks

All Clear – The hazard area has been searched and the rescue phase of the incident is over for any possible customers/casualties (primary search completed). FTL will communicate the benchmark to the IC when the primary search is completed.

Fire Under Control/Contained –The fire is contained in an area, extensions have been checked.
Fire Out/Fire Completely Extinguished – FTL communicates the benchmark to the IC when the fire has been completely extinguished.

Fire Team Accountability/Personnel Accountability Report (PAR) - The FTL will communicate the benchmark to the IC on all routine fire incidents and conduct a personnel accountability report (PAR) to ensure command that all Fire Team members are accounted for and are operating in their intended locations. There are many possible scenarios that could require the Fire Team Lead or the IC to order accountability to conduct an emergency PAR: a sudden extension of fire; a change from offensive to defensive operations; a PASS alarm is known to be sounding; an individual or crew has not been heard from. At given intervals 20 minutes into the incident the IC will request a PAR from the Fire Team Lead (assumes a 45-minute bottle). The Fire Team could be running low on air, this time slot helps keep the Fire Team together and prompts the Fire Team Lead to evaluate his/her team.

Note: The 20-minute PAR might be adjusted based on the typical operational duration of the SCBA air bottles. (20 minute PAR with a 45 minute bottle)

All emergency team members should be able to recognize the potential types of *situations which require assistance for an OFT emergency (e.g., person down or team down)* and how to properly communicate it.

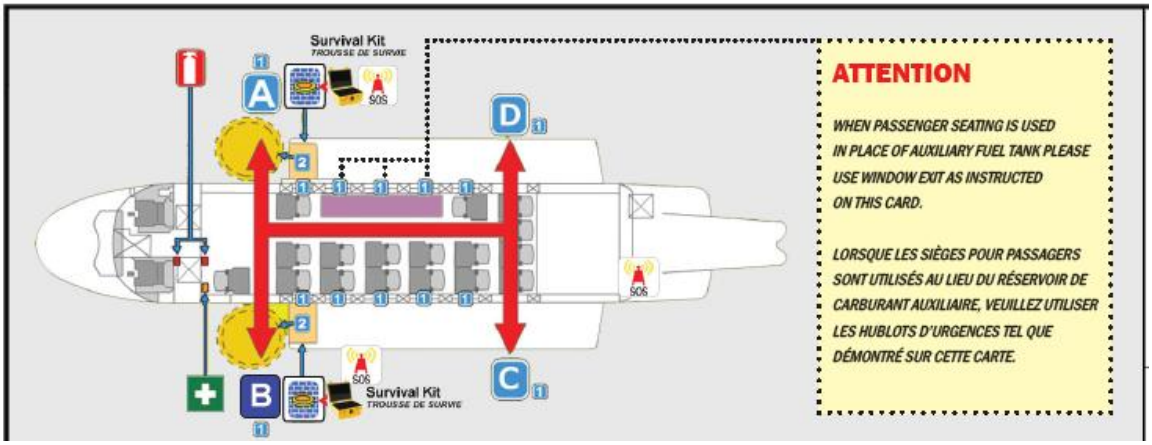
References:

- International Fire Service Training Association (IFSTA)
- National Fire Protection Association (NFPA)
- Offshore Petroleum Industry Training Organization (OPITO)
- IFSTA - Essentials of Fire Fighting Sixth Edition
- IFSTA - Marine Fire Fighting Second Edition
- IFSTA - Aircraft Rescue and Fire Fighting
- NFPA – NFPA 1405 (Marine)

21 Appendix A Aircraft Configuration S-92

Aircraft Configuration S-92

Seat (Single auxiliary fuel tank) (no auxiliary fuel tank)



Appendix B Safety Briefing card, which shows the location of the Single Auxiliary Fuel Tank

22 Appendix C HUEBA Pre-flight inspection

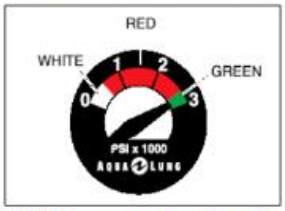
HPTSS HELIPORT PROCEDURE

CARE POINT

It is strongly encouraged that these checks are conducted at the time of fitting the HUEBA onto the passenger or; depending on Operator and/or helicopter service provider preference, the checks can be conducted at any time on the day of travel prior to the passenger travelling.

Prior to fitting the HUEBA into the pocket, perform the below described checks as outlined by the OEM:

- Turn the unit on (turn knob fully counterclockwise/left then back a quarter of a turn)
- Confirm that the pressure gauge reading is full (I.e., needle is within the green zone)



- Briefly (i.e., half second ONLY) depress and release the purge button to confirm air flow
- Listen carefully for any leaks.

Note: In case a passenger makes multiple flights on the same day (e.g. intervention flights), the last 2 bullet points (referring to the purge test) only need to be conducted once, at the time as recommended above, provided the same HUEBA is used by the same passenger and remains under the passenger's control.

When a flight has missed approach and passengers arrive back at the heliport, their HUEBAs must be tagged with their names again.

IF ANY OF THESE CHECKS FAIL, COMPLETE A CONDITION AND IDENTIFICATION TAG (QF-20), SELECT A DIFFERENT HUEBA FOR USE AND RETURN HUEBA TO SURVITEC SERVICE SITE.

9.6.1 **INSTALLING THE HUEBA**

CARE POINT

The HUEBA pocket has a secondary pocket built into the primary pocket (figure 1).
The hose must go into the secondary pocket, while the cylinder must go into the outer (primary) pocket (figure 2).
If the hose and the cylinder end up together in the same pocket, the HUEBA could be rendered inoperable as the hose could get stuck underneath the cylinder.

FIGURE 1

FIGURE 2

23 Appendix D Using your HUEBA in Emergency Situations

HPTSS HELIPORT PROCEDURE

1. As passengers complete the donning process a Suit Room Technician will have them line up in single file. One at a time the technician will have each person identify themselves so that the technician selects the HUEBA tagged for that passenger and install it for them.
2. Place the HUEBA into the **OUTER** pocket nearly all the way, just leaving the gauge and first stage regulator above the pocket entry zipper (Figure 1). The hose should point towards the passenger's chest and the gauge should point outwards towards the plastic window. Take the hose end and feed it into the **INNER** pocket (Figure 2).

FIGURE 1

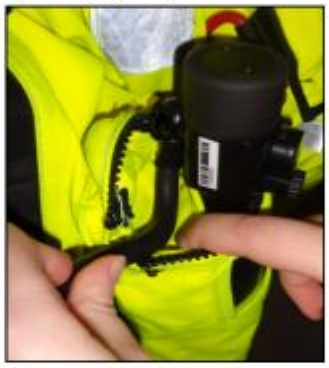


FIGURE 2

3. Continue feeding the hose into the inner pocket (Figure 3) until the majority of the hose is positioned inside the pocket (Figure 4).

FIGURE 3

FIGURE 1

4. Insert the HUEBA all the way into the pocket, such that the gauge is visible through the window. (Figure 5). This may cause the hose directly behind the first stage regulator to curl up (Figure 6).

FIGURE 5

FIGURE 6

5. If this is the case, ensure that the hose is adjusted down into the pocket (Figure 7). Then close the zipper and secure the zipper tab with the snap fastener (Figure 8).

FIGURE 7

FIGURE 8

HPTSS HELIPORT PROCEDURE

CARE POINT

When the passenger is seated in the helicopter, ensure the seatbelt does not cover the HUEBA mouthpiece. The mouthpiece should be on the inside of the seatbelt, NOT underneath.

9.7 DOFFING UPON ARRIVAL FROM OFFSHORE

CARE POINT

Make sure that undergarments are not caught in the teeth. Do not force a sliding fastener if it jams while opening as this could cause damage to the suit.

NOTE: The mitts should never be donned during regular flight activity, but in case the mitts were donned prior to arrival, open the sliding fasteners on the sleeves and take the hands out of the mitts. **In case the hood was donned prior to arrival, open the sliding fastener on the hood.**

1. The Heliport Suit Technician will remove the HUEBA mouthpiece retainer (with mouthpiece attached) from the LPU by means of releasing the clip (Figure 1), then open the HUEBA pocket zipper and remove the HUEBA from the pocket (Figure 2), ensure the HUEBA is turned off, and place it into the HUEBA carrying bin (to prevent damage).

FIGURE 1

FIGURE 2

24 Appendix E Using your HUEBA in Emergency Situations

HNZ

HUEBA: Using your HUEBA in Emergency Situations

HTPSS
Survival Suit

1. Grasp the second stage regulator on left shoulder

2. Pull second stage regulator clear of its dust cover and the hose clear from the suit

3. Place second stage regulator in your mouth and form a seal, using your lips on the outside of the mouthpiece. Support the demand valve in your mouth.

4. When underwater blow forcefully through the mouth-piece to clear the water from the demand valve. If you are unable to clear the second stage regulator with a forceful breath you can use the purge button. The use of the purge button should be kept to a minimum as it decreases the endurance of the unit.

5. Once you have cleared the unit you can inhale air from the system while completing your escape. Remember to breath both in and out only through your mouth.

6. Remember to breath out on the way to the surface.

Version 1 - Sep 2015

25 Appendix F Well Control Training Matrix

	Level	Level 1	Level 2	Level 3	Level 4	Level 5
Well Control Training Matrix **Description - Type of Course** **CR: Classroom course or on the job mentored program.** **OM: Online modules which includes self-assessment quizzes.** **WS: workshop seminars and simulations.**	**Description**	**Awareness**	**Operations Support Team**	**Equipment Operator**	**Supervisory**	**Enhanced**
	Applicable to personnel	Personnel involved in Drilling, Completions or Wellwork/Intervention planning and operations	Indirectly influence well control operations from a monitoring, observing, reporting perspective	Operate well control equipment and take direct corrective first action in responding to a well control event	Conduct oversight, of well activities and who analyze, anticipate, plan and verify next steps to be taken in a well control event	Involved in well design and/or approval and any senior personnel involved in decision making
	Learning Method [(1)]	OM or CR	OM or CR	OM or CR	OM or CR	CR or WS
	Duration (days)	0.5	2	5	5	**1**
	Formal Assessment	Online Learning Check	Examination	Examination and Practical	Examination and Practical	Practical
	Repeat Frequency	No repeat	5 years	2 years	2 years	5 years
	Accreditation Required	No	Yes	Yes	Yes	No
	Training Requirement	Combined	Applicable Drilling/Completions/Well Intervention or Wellwork Activity			
ONSHORE - OPERATOR	**ONSHORE - OPERATOR**					
	Level	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**
		Awareness	**Operations Support Team**	**Equipment Operator**	**Supervisory**	**Enhanced**
Drilling/Completions & Intervention/Wellwork [(2)] **Manager**	**DCI/Wells Manager**				✓	✓
Drilling/Completions & Intervention/Wellwork Superintendent					✓	✓

Drilling/Completions & Intervention/Wellwork Engineer (DCI)	Less than 1 year experience		✓			
Drilling/Completions & Intervention/Wellwork Engineer (DCI)	> 1 year experience				✓	Note 3
Engineering, Operations & Subsurface Support	Operations Geologist, Production Engineer / Formation Evaluation Specialist		✓			
Ancillary Operations Support	Health, Safety and Environment (HS&E) Advisor, Logistics Coordinator	✓				
ONSHORE - RIG CONTRACTOR	ONSHORE RIG CONTRACTOR					
	Level	Level 1	Level 2	Level 3	Level 4	Level 5
		Awareness	Operations Support Team	Equipment Operator	Supervisory	Enhanced
Rig Contractor Management	Rig Manager				✓	✓
	Assistant Rig Manager				✓	✓
OFFSHORE - OPERATOR	Well-site - OPERATOR					
	Level	Level 1	Level 2	Level 3	Level 4	Level 5
		Awareness	Operations Support Team	Equipment Operator	Supervisory	Enhanced
Drilling/Completions Supervisor	Company Man/Woman				✓	✓
Intervention/Wellwork Supervisor					✓	Note 3
Drilling/Completions & Intervention Engineer (DCI)	Less than 1 year experience		✓			
Drilling/Completions & Intervention Engineer (DCI)	> 1 year experience				✓	Note 3
Engineering, Operations & Subsurface Support	Operations Geologist, Production Engineer/ Formation Evaluation		✓			

	Specialist, Production Supervisor					
Ancillary Operations Support	Health, Safety and Environment (HS&E) Advisor, Logistics Coordinator	✓				
Offshore Installation Managers						
	Level	Level 1	Level 2	Level 3	Level 4	Level 5
		Awareness	Operations Support Team	Equipment Operator	Supervisory	Enhanced
Drilling Offshore Installation Manager	Drilling Offshore Installation Manager				✓	Note 3
Production Offshore Installation Manager	Production Offshore Installation Manager		✓(4)			
Offshore Petroleum Lead	Offshore Platform Lead		✓			
OFFSHORE - MARINE	Well-site - RIG MARINE					
	Level	Level 1	Level 2	Level 3	Level 4	Level 5
		Awareness	Operations Support Team	Equipment Operator	Supervisory	Enhanced
Marine Supervisor	Marine Leader / Barge Master / Chief Officer,Assistant Marine Leader / Barge Master / Chief Officer, DPO/BCO, Assist and DPO/DCO		✓			
Marine Operations Support	Crane Operator, Assistant Crane Operator, Roustabout	✓				
OFFSHORE - Drilling & Intervention OPERATIONS	Well-site - RIG Drilling & Intervention					
	Level	Level 1	Level 2	Level 3	Level 4	Level 5
		Awareness	Operations Support Team	Equipment Operator	Supervisory	Enhanced
Senior Toolpusher	Senior Toolpusher				✓	✓

Toolpusher	Toolpusher				✓	
Driller	Driller, Assistant Driller			✓		
Subsea BOP Engineer/Supervisor	Subsea BOP Engineer/Supervisor			✓		
Drilling & Intervention Operations Support	Derrickman, Assistant Derrickman, Roughneck		✓			
OFFSHORE - RIG MAINTENANCE	Well-site - RIG MAINTENANCE					
	Level	Level 1	Level 2	Level 3	Level 4	Level 5
		Awareness	Operations Support Team	Equipment Operator	Supervisory	Enhanced
Maintenance Supervisor	Maintenance Supervisor		✓			
Rig Maintenance Support	Maintenance Engineer, Engine Room Operator, Motorman, Mechanic, Welder, Electronic Technician (Drilling, DP, Subsea), Electrician	✓				
OFFSHORE - 3RD PARTY SERVICES	Well-site 3RD PARTY SERVICES					
	Level	Level 1	Level 2	Level 3	Level 4	Level 5
		Awareness	Operations Support Team	Equipment Operator	Supervisory	Enhanced
Intervention Operations Supervisor	Wireline & Slickline Supervisor, Hydraulic Workover (Snubbing) Supervisor, Coiled Tubing Supervisor, Pumping & Stimulation Supervisor				✓	
Intervention Operations Operator	Wireline & Slickline Operator, Hydraulic Workover (Snubbing) Operator, Coiled Tubing Operator, Pumping & Stimulation Operator,			✓		

Intervention Operations Support	**Wireline & Slickline Crew, Hydraulic Workover (Snubbing) Crew, Coiled tubing Crew, Pumping & Stimulation Crew, Wellhead & XT Installation Crew**		✓			
Operations Supervisors	**Mudlogging Supervisor, Well Test Supervisor, Lead Cementer, Lead Fluids Engineer, MPD / UBD Supervisor**				✓	
Operations Operator	**Well Test Engineer, MPD / UBD Operator**			✓		
Operations Support	**Mudlogging / Data Engineers, Mudlogging Sample Catchers, Well Test Crew, Wellhead & XT Installation Crew, MPD / UBD Crew**		✓			
Ancillary Service Supervisors & Operators	**Directional Driller / MWD / LWD, Coring Supervisor, ROV Supervisor, Casing & Tubular Running Supervisor, Cementing Operator, Fishing Operator, Fluids Engineer**		✓			
Ancillary Service Support	**Coring Crew, ROV Crew, Casing & Tubular Running Crew, Cementing Crew, Solids Control Operators**		✓			

Note 1: With the exception of Level 1, first time trainees are encouraged to attend classroom training .
Note 2: Drilling/Completions and/or Intervention/Wellwork: Nomenclature used to capture activities specific to Drilling/Completions, Workover & Interventions
Note 3: Dependent on specific roles and responsibilities (i.e. Lead Engineer)
Note 4: Production OIMs should be trained at level 2, but recertified more frequently (every 2 years), this would include OIMs on shared drilling/production platforms staffed with Drilling/Completions and Intervention/Wellwork Supervisors. Production OIMS on facilities with no drilling equipment should be trained at level 2 with recertification every 5 years.