

# Atlantic Canada Standby Vessel Guidelines

Second Edition

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**TABLE OF CONTENTS**

DEFINITIONS .....	5
ABBREVIATIONS .....	6
FOREWORD.....	7
FUNCTIONS OF THE STANDBY VESSEL .....	9
1. DESIGN, CONSTRUCTION AND PERFORMANCE .....	9
1.1 Stability.....	9
1.2 Speed and Manoeuvrability .....	10
1.3 Navigating Bridge Visibility.....	10
1.4 Water Spray System .....	10
1.5 Lifeboat Towing Arrangement .....	11
1.6 Emergency Response Performance .....	11
1.7 Standby Vessel Readiness.....	11
2. EMERGENCY RESPONSE EQUIPMENT AND ARRANGEMENTS .....	12
2.1 Rescue Zone.....	12
2.2 Survivor Rescue Equipment .....	12
2.2.1 FRC(s) and Launching Arrangements .....	13
2.2.2 Powered Survivor Retrieval Device .....	13
2.2.3 Climbing Aids .....	13
2.2.4 Rescue Hooks.....	13
2.2.5 Lifebuoys .....	14
2.3 Helicopter Winching Area.....	14
2.4 Gas Detection Equipment .....	14
2.5 Communications Equipment.....	14
2.6 De-icing Equipment.....	15
2.7 Stretcher Accessibility .....	15
3. TREATMENT AND ACCOMMODATION FACILITIES.....	15
3.1 Decontamination Area .....	15
3.2 Survivor Reception.....	16
3.3 Treatment Room.....	16
3.4 Accommodations and Supplies.....	16

3.4.1	Deck Area .....	16
3.4.2	Bunks and Washrooms .....	17
3.4.3	Water and Food .....	17
3.4.4	Sundries .....	17
3.5	Medical Equipment, Supplies and Support .....	17
3.6	Non-Survivors .....	17
4.	CREWING, TRAINING AND DRILLS .....	18
4.1	Vessel's Complement .....	18
4.2	Training and Qualifications of Personnel .....	18
4.3	Hydrogen Sulphide / Hazardous Gas Awareness .....	18
4.4	Crew Organization for Emergencies .....	19
4.5	Crew Familiarization .....	19
4.5.1	Familiarization with the Standby Vessel .....	19
4.5.2	Familiarization with the Installation's Plan .....	19
4.6	Emergency Response Drills and Trials .....	20
4.6.1	General .....	20
4.6.2	FRC Drills .....	20
4.6.3	Mass Rescue Operations Drills .....	20
4.6.4	Performance Trials .....	21
5.	PROCEDURES AND PLANS .....	21
5.1	Documents and Publications .....	21
5.2	Standby Vessel Operations Plan .....	21
5.3	Procedures for Normal Field Operations .....	22
5.4	Procedures for Emergency Response and Rescue Operations .....	22
6.	EMERGENCY RESPONSE EQUIPMENT INSPECTIONS, MAINTENANCE AND TESTING .....	23
7.	SURVEYS AND CERTIFICATION .....	24
7.1	Recognized Classification Societies .....	24
7.2	Vessel Certification .....	24
7.3	Vessel Surveys .....	24
8.	ENFORCEMENT, REVIEW AND REVISION .....	25
8.1	Coming into effect .....	25

8.2	Review and Revision .....	25
APPENDIX 1: HELICOPTER WINCHING AREA.....		26
APPENDIX 2: LIST OF FIRST AID EQUIPMENT, SUPPLIES AND MEDICATIONS .....		27
APPENDIX 3: EXAMPLE OF TRIAGE SYSTEM.....		30
APPENDIX 4: FORM OF THE AC-SBV DOC .....		33
APPENDIX 5: PERFORMANCE TRIAL PROCEDURES .....		36

**DEFINITIONS**

<b>Acts</b>	The Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act and Canada-Newfoundland Atlantic Accord Implementation Act.
<b>Authorized Representative</b>	The entity responsible for acting with respect to all matters relating to the vessel, as defined in the Canada Shipping Act.
<b>Boards</b>	The C-NLOPB and CNSOPB.
<b>Atlantic Canada TQSP</b>	The Atlantic Canada Offshore Petroleum Standard Practice for the Training and Qualifications of Offshore Personnel.
<b>Chief Safety Officer (CSO)</b>	The persons appointed as Chief Safety Officers by the C-NLOPB and CNSOPB respectively, within the scope of the relevant Acts
<b>Daughter Craft (DC)</b>	Daughter Crafts may be carried on board the Standby Vessel for the purpose of supporting normal offshore field operations, such as personnel or equipment transfers and close standby for persons working over the side. DCs will normally operate under an exemption certificate issued by the vessel's flag state, prescribing the conditions under which they are allowed to operate independently of the standby vessel (e.g. weather parameters, maximum excursion distance, crew work hours, etc.).
<b>Drilling and Production Regulations</b>	Nova Scotia Offshore Petroleum Drilling and Production Regulations; and Newfoundland Offshore Petroleum Drilling and Production Regulations.
<b>International Lifesaving Appliances Code</b>	The Code adopted by the IMO's Maritime Safety Committee (MSC) by resolution MSC.48(66), pursuant to Chapter III of the 1974 SOLAS Convention.
<b>Load Line Regulations</b>	The regulations pursuant to the International Convention on Load Lines, 1966, as amended.
<b>Rescue Zone</b>	The side of the vessel that is designated as the survivor retrieval area and marked "RESCUE ZONE" on the vessel's hull.

**ABBREVIATIONS**

<b>AC-SBV DOC</b>	Atlantic Canada Standby Vessel Document of Compliance
<b>ABS</b>	American Bureau of Shipping
<b>AED</b>	Automatic External Defibrillator
<b>BV</b>	Bureau Veritas
<b>CAPP</b>	Canadian Association of Petroleum Producers
<b>CNSOPB</b>	Canada-Nova Scotia Offshore Petroleum Board
<b>C-NLOPB</b>	Canada-Newfoundland and Labrador Offshore Petroleum Board
<b>CSO</b>	Chief Safety Officer
<b>DC</b>	Daughter Craft
<b>DNVGL</b>	Det Norske Veritas Germanischer Lloyd
<b>FRB/C</b>	Fast Rescue Boat/Craft
<b>IACS</b>	International Association of Classification Societies
<b>IMDG Code</b>	International Maritime Dangerous Goods Code
<b>IMO</b>	International Maritime Organization
<b>LR</b>	Lloyd's Register of Shipping
<b>LSA Code</b>	International Lifesaving Appliances Code
<b>OHS</b>	Canada–Newfoundland and Labrador Offshore Marine Installations and Structures Occupational Health and Safety Transitional Regulations, December 31, 2014 and Canada–Nova Scotia Offshore Marine Installations and Structures Occupational Health and Safety Transitional Regulations, December 31, 2014
<b>OIM</b>	Offshore Installation Manager
<b>POB</b>	Persons on Board
<b>SBV</b>	Standby Vessel
<b>SOLAS</b>	The International Convention for the Safety of Life at Sea
<b>STCW Code</b>	The Seafarers' Training, Certification and Watchkeeping Code

## FOREWORD

The Canada-Nova Scotia Offshore Petroleum Board and Canada-Newfoundland and Labrador Offshore Petroleum Board (the Boards) have issued these guidelines to assist operators to achieve compliance with the *Drilling and Production Regulations* and the *OHS Regulations* respecting the suitability and capability of support craft as a standby vessel (SBV) to supply emergency services.

The operators must ensure that the standby vessels comply with Part 9 (sections 69 and 70) of the *Drilling and Production Regulations*, as well as Section 299 of the *OHS Regulations* which read as follows:

<p style="text-align: center;"><b>DRILLING AND PRODUCTION REGULATIONS</b>  <b>PART 9</b>  <b>SUPPORT OPERATIONS</b>  <b>SUPPORT CRAFT</b></p> <p><b>69.</b> The operator shall ensure that all support craft are designed, constructed and maintained to supply the necessary support functions and operate safely in the foreseeable physical environmental conditions prevailing in the area in which they operate.</p> <p><b>70. (1)</b> The operator of a manned installation shall ensure that at least one support craft is</p> <ul style="list-style-type: none"> <li>(a) available at a distance that is not greater than that required for a return time of twenty minutes; and</li> <li>(b) suitably equipped to supply the necessary emergency services including rescue and first aid treatment for all personnel on the installation in the event of an emergency.</li> </ul> <p>(2) If the support craft exceeds the distance referred to in paragraph (1)(a), both the installation manager and the person in charge of the support craft shall log this fact and the reason why the distance or time was exceeded.</p> <p>(3) Under the direction of the installation manager, the support craft crew shall keep the craft in close proximity to the installation, maintain open communication channels with the installation and be prepared to conduct rescue operations during any activity or condition that presents an increased level of risk to the safety of personnel or the installation.</p> <p style="text-align: center;"><b>OHS REGULATIONS</b>  <b>STANDBY CRAFT</b></p> <p>(299) For every drilling operation and production operation, the employer must provide a standby craft capable of safely evacuating all employees from the workplace.</p>
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The onus is on the operator to comply with the Regulations and to demonstrate to the appropriate Board the adequacy and effectiveness of the methods employed to achieve compliance.

This guideline outlines a means to demonstrate compliance with the above referenced Regulations in most instances. This guideline itself is not a statutory instrument; in this regard, the information set out in the guideline does not prevent the Boards from imposing additional requirements, nor does it absolve the operators of their responsibility to ensure that the standby vessels are suitable for the identified operating conditions and hazards associated with the specific offshore activity. An operator is therefore expected to

verify the applicability of the guidance for their identified operating conditions, and to determine if further mitigation than described in this guideline is required.

Additionally, irrespective of the information provided in the guideline, operators may propose alternative methods or means to demonstrate compliance with the Regulations, which would be considered on a case-by-case basis by the Boards.

The authority to issue this guideline with respect to the Regulations is specified by subsection 156(1) of the *Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act* (CNSOPRAIA) and subsection 151.1(1) of the *Canada-Newfoundland and Labrador Atlantic Accord Implementation Act* (CNAAIA). References to the Offshore Accord Acts are to the federal versions for ease of reference.



## **FUNCTIONS OF THE STANDBY VESSEL**

**Goal: The paramount function of a vessel while on emergency response and rescue duty is to save life.**

In fulfilling this goal, the functions of a vessel on standby duty include:

- a) Assisting in the rescue of installation personnel in the event of an emergency;
- b) Accommodating all personnel of the offshore installation in the event of a total evacuation;
- c) Providing shelter and treatment to rescued personnel;
- d) Acting as a rescue radio station able to communicate with the installation, other vessels and installations in the vicinity, rescue craft and coast station(s);
- e) Assisting in collision avoidance;
- f) Attending close to the offshore installation as necessary and be fully prepared to rescue persons during the following operations:
  - i. Helicopter landing or take off,
  - ii. Personnel working over the side and near or in the water, or
  - iii. Any other operation, as requested by the OIM.

### **1. DESIGN, CONSTRUCTION AND PERFORMANCE**

**Goal: Standby vessels are designed, constructed and maintained to operate safely and supply the necessary emergency services in the foreseeable physical environmental conditions prevailing in the area of operations.**

The vessel should be a “Safety Convention Vessel”, as defined in the Canada Shipping Act, and carry a valid Certificate of Class issued by a recognized Classification Society that is a member of the International Association of Classification Societies (IACS).

#### **1.1 Stability**

**Goal: The vessel has sufficient stability for worst-case load configurations and sea states while on standby duty, with the maximum number of survivors on board.**

The vessel should have on board stability data required by the *Load Line Regulations* SOR/2007-99 and carry a valid Load Line Certificate appropriate to the operating areas and times of year.

In addition, an assessment of all stability conditions should be carried out to demonstrate the vessel's stability in the full range of emergency response and routine operational conditions likely to be encountered. This assessment should be verified by a Classification Society and consider:

- a) Departure from port to the assigned installation(s) (i.e. with full load of consumables, provisions and fuel);
- b) Mid-period duty (i.e. with appropriate utilization of consumables, provisions and fuel);
- c) Arrival back in port on completion of maximum standby duty (i.e. with appropriate utilization of consumables, provisions and fuel); and
- d) Emergency response conditions as for b) and c) with the maximum allowable number of persons on board (i.e. includes installation POB and is based on the assumption that each person weighs 100 kg, inclusive of the survival suit). This condition should also take into account the launch and recovery of the FRC(s) and the deployment and operation of recovery devices under worst conditions. These worst-case conditions should be taken to be those under which all survivor

recovery and rescue devices are deployed on one side of the vessel with none on the opposite side. Under such conditions the intact angle of heel should not exceed 7 degrees.

Multifunction vessels should also be assessed for the worst-case loading conditions when assessing d), considering the effect of both deck and bulk cargo on stability.

The stability data should also calculate the freeboard throughout the operational loading range a) to d) to demonstrate compliance with the climbing aids' height restrictions (see 2.2.3).

## **1.2      *Speed and Manoeuvrability***

**Goal: The vessel has sufficient manoeuvrability and sea-keeping ability to safely and reliably rescue persons and return them to shore facilities in a timely manner.**

The vessel should be capable of achieving a speed of at least 12 knots in calm water conditions. Its propulsion system should be such that with a main propulsion unit disabled, the vessel is still capable of achieving a speed of at least 4 knots.

The vessel should be highly manoeuvrable. Examples of appropriate configurations include, but are not limited to:

- a) Twin screw and bow thruster;
- b) Single screw with reversible gearbox or variable pitch control and a 360° azimuth thruster; or
- c) Two 360° azimuth thrusters ('Z-Drives').

The configuration of the bridge controls should be such that the vessel can be fully manoeuvred by one person.

## **1.3      *Navigating Bridge Visibility***

**Goal: Bridge personnel have sufficient visibility to carry out search and rescue operations safely and effectively.**

The navigating bridge should be designed so that there is an unobstructed line-of-sight view of:

- a) The water adjacent to both sides of the rescue zone; and
- b) The helicopter winching area.

Furthermore, the navigating bridge should be designed to offer 360° visibility around the vessel, aided by means of cameras and extra lookouts as necessary.

The vessel's searchlight(s) should be capable of providing 360° coverage.

## **1.4      *Water Spray System***

**Goal: The vessel has the capability to protect itself, its crew and survivors from radiated heat in order to enhance its rescue and recovery abilities.**

The vessel should be fitted with a water spray/water curtain system, which would enable the vessel to:

- a) Protect its crew from radiated heat;
- b) Safely proceed closer to a burning installation; and
- c) Extend the area of protection in order to provide relief to persons in the water, trapped on the installation, or the FRC and its crew.

Examples of appropriate water spray/water curtain systems include those compliant with a recognized classification society's notation rules for one of the following standard classes of firefighting systems:

- ABS FFV 1, FFV 2, or FFV 3;
- BV Firefighting Ship 1, 2, or 3;
- DNV.GL Firefighter I, II, or III; or
- LR Firefighting Ship 1, 2, or 3.

### **1.5 Lifeboat Towing Arrangement**

The standby vessel should have suitable arrangements and procedures in place for connecting to and towing the lifeboats fitted on the installation(s) to be serviced.

### **1.6 Emergency Response Performance**

**Goal: The vessel and its crew have the capability to conduct rescue operations safely, effectively and efficiently.**

The vessel and its crew should be capable of achieving the following:

- a) Launch the FRC within 5 minutes;
- b) Make the powered survivor retrieval device ready for deployment within 20 minutes;
- c) Deploy the climbing aids within 5 minutes; and
- d) Retrieve 10% of the number of persons the vessel is rated for on the AC-SBV DOC, or the maximum POB of the helicopter used in the area whichever greater, within 75 minutes.

This capability is demonstrated through the performance trials described in Section 4.6.4.

### **1.7 Standby Vessel Readiness**

**Goal: The standby vessel is ready to respond immediately to an emergency.**

All measures necessary should be taken to ensure that the vessel is in all respects ready to perform the specified standby vessel duties including:

- a) Ensuring all rescue and recovery equipment is in good working order and readily available at all times;
- b) Keeping the designated rescue zone areas, helicopter winching area and access thereto clear of obstructions, ice and snow;
- c) Ensuring there are no flammable or explosive cargoes on deck (IMDG Code Class 1, 2.1, 3, or 4);
- d) Being able to cease immediately any other operations upon being alerted of an emergency to respond to the situation;
- e) Remaining within a distance which allows the vessel to proceed within 500 metres of the installation within 20 minutes of being alerted of an emergency; and
- f) Ensuring that any other activity that the vessel may be engaged in will not compromise its ability to meet the emergency response performance described in Section 1.6.

The vessel's Master should notify the OIM immediately if the vessel's ability to meet any of the above conditions has been compromised.

In addition to notifying the OIM, in cases where the vessel has to proceed to a distance greater than that allowing it to return to the safety zone within 20 minutes, the Master should record this fact, and the reasons for doing so, in the vessel's logbook.

## **2. EMERGENCY RESPONSE EQUIPMENT AND ARRANGEMENTS**

**Goal: The vessel has suitable equipment and arrangements to be able to effectively and efficiently respond to emergencies.**

The standby vessel should be equipped with effective primary and secondary means for retrieving persons from the water, while at the same time safeguarding the safety of its crew. The equipment and arrangements should allow for the quick retrieval of unconscious persons from the water during unfavourable conditions, taking into account the fact that personnel may have to be retrieved via the FRC or directly from the water and/or from a survival craft, concurrently.

### **2.1 *Rescue Zone***

**Goal: The vessel has a suitable designated rescue zone to safely recover persons from the water and other craft.**

An appropriate means of achieving this goal is for the vessel to have a designated rescue zone on each side that is:

- a) Not less than 8 metres in length, along the vessel's side;
- b) Located near the accommodations, as clear of obstructions as practicable, and at a safe distance from the vessel's propellers, thrusters and overboard discharge points;
- c) Adequately illuminated by means of dedicated lighting;
- d) Provided with dedicated deck rescue areas, adequate working space, and access thereto clearly marked in contrasting colours;
- e) Fitted with effective fall protection arrangements, to enable the vessel's crew to safely reach down over the vessel's side;
- f) Clearly marked with diagonal stripes in a contrasting colour extending from the bulwarks to the waterline and having the words "RESCUE ZONE" painted prominently on the vessel's sides; and
- g) Fitted either with a powered survivor retrieval device on both sides, or a powered survivor retrieval device on one side and a climbing aid on the other (see Section 2.2).

The design of the embarkation area on the rescue zone should be such as to allow the deck crew to reach down over the vessel's side and help survivors climb up the climbing aids and safely board the vessel (e.g. bulwark gates, removable railings, or inboard catwalks).

### **2.2 *Survivor Rescue Equipment***

**Goal: The vessel is suitably equipped to facilitate safe recovery of persons from the water and other craft.**

Appropriate means of achieving this goal are detailed in the following sections.

### **2.2.1 FRC(s) and Launching Arrangements**

The vessel should be equipped with one or more FRCs, as necessary to meet the emergency response performance described in Section 1.6.

Proper personal protective equipment should be provided for the crew of the FRC, including floatation and thermal protection, as well as head, eye, hand and foot protection.

At a minimum, each required FRC and its launching arrangements should meet the performance requirements of the LSA Code, Sections 5.1.4 and 6.1.7 respectively.

In addition, each FRC should be fitted with:

- a) A primary and a backup waterproof radio communications system, allowing communication between the coxswain and the standby vessel's bridge, offshore installation and other craft; and
- b) A rescue frame suitable for retrieving persons from the water.

NOTE 1: The capacity of the FRC and the Safe Working Load of its launching arrangement should be determined based on an average weight of 100 Kg per person.

NOTE 2: A Daughter Craft (DC) may also be accepted as an FRC, provided it meets the above requirements.

### **2.2.2 Powered Survivor Retrieval Device**

The powered survivor retrieval device (e.g. "Dacon Scoop") should:

- a) Be capable of retrieving unconscious persons from the water;
- b) Have a safe working load of at least 600kg; and,
- c) Be inspected and maintained as per Section 6.

### **2.2.3 Climbing Aids**

The climbing aids should be manufactured of suitable materials and with appropriate mesh size that provide a good grip for survivors.

When deployed, the climbing aids should:

- a) Extend at least 3.5 metres in width along the vessel's side;
- b) Offer a climbing distance which, measured from the waterline on the vessel's lightest operating draft during the voyage to their highest point, does not exceed 4 metres;
- c) Extend one metre below the vessel's waterline on its lightest operating draft during the voyage;
- d) Hang clear of the vessel's side by at least 10 cm, so as to allow survivors to have a good grip and solid footing while climbing; and
- e) Be arranged so as to allow the vessel's crew to reach down over the vessel's side and assist survivors on board.

### **2.2.4 Rescue Hooks**

The vessel should be equipped with at least 4 rescue hooks having a minimum length of 5.5 metres and be stored in an easily accessible location near the rescue zone.

### **2.2.5 Lifebuoys**

The vessel should be equipped with at least two lifebuoys on each side of the rescue zone that meet the requirements of the LSA Code, Section 2.1.

## **2.3 Helicopter Winching Area**

**Goal: The vessel is suitably outfitted to facilitate the safe transfer of persons between vessel and aircraft.**

Appropriate means of achieving this goal would be for the vessel to have a designated helicopter winching area, which should be:

- a) At least 5 metres transversely by 3 metres longitudinally on the vessel's port quarter;
- b) Adequately illuminated such that the area is clearly visible to the helicopter at all times; and
- c) Kept completely free of protrusions, cargo, or other loose items, while on standby duty.

An example of the helicopter winching area on a typical offshore support vessel is illustrated in Appendix 1.

## **2.4 Gas Detection Equipment**

**Goal: The vessel is suitably equipped to operate safely in an emergency situation where hazardous gases may be present (e.g. known or potential sour production fields, or exploratory drilling operations).**

The vessel should be equipped with at least two (2) fixed Hydrogen Sulphide (H<sub>2</sub>S) monitors, which should be installed strategically in proximity to the air intakes of the vessel's accommodations and capable of giving an audible alarm on the bridge.

Furthermore, fixed or portable H<sub>2</sub>S monitors should be provided for the protection of the FRC crew.

All H<sub>2</sub>S monitors should be capable of detecting concentrations of five (5) parts per million (ppm).

Additional detectors and/or equipment may be necessary where other hazardous gases may be present during an emergency.

The gas detection equipment should be maintained and calibrated in accordance with Section 6.

However, if it can be demonstrated that the vessel will only operate in fields where hazardous gases are not present the above gas detection equipment may be considered optional. In such cases an annotation should be added to the vessel's AC-SBV DOC, indicating that it is not fitted with gas detection equipment.

## **2.5 Communications Equipment**

**Goal: The vessel is suitably equipped to communicate effectively in an emergency with the installation, other vessels and aircraft.**

Appropriate means of achieving this goal include the following communication facilities:

- a) A primary and a backup system to allow radio communications between the bridge conning station and offshore installations and helicopters;
- b) A two-way on-scene radio communications system for search and rescue purposes, capable of homing onto the aeronautical emergency frequency of 121.5 MHz;
- c) Internal fixed or portable systems allowing communication between the bridge conning station and the rescue zone, helicopter winching area and treatment room; and
- d) The FRC and treatment room communication systems required by Sections 2.2.1 and 3.3, respectively.

## **2.6 De-icing Equipment**

The vessel should be provided with adequate means to allow effective de-icing of the designated rescue and recovery equipment and areas, as well as all passageways thereto. This includes the vessel's decks and structures in the vicinity of the rescue zone, helicopter winching area and areas surrounding the rescue equipment (i.e. survivor retrieval device, FRC, etc.). Appropriate means may include mechanical or chemical means (e.g. spraying system, salt, etc.), or simply equipment for the crew to manually remove ice (e.g. scrapers, mallets, etc.).

## **2.7 Stretcher Accessibility**

It should be possible to transfer a stretcher between the treatment room, the rescue zone and the helicopter winching area horizontally, with the need for any inclined transfer minimized as much as practicable and in any event not exceeding 45° at any point. Where the stretcher has to be carried through the deck cargo stowage area, a 2.5m-wide access walkway should be maintained clear at all times while on standby duty. The walkway should not have any sharp turns that could impact the efficient manoeuvring of the stretcher.

# **3. TREATMENT AND ACCOMMODATION FACILITIES**

**Goal: The vessel is suitably outfitted to provide care, treatment and accommodation to persons recovered in an emergency.**

In fulfilling this goal, the standby vessel should be outfitted with the necessary facilities, medical equipment and supplies to receive, process, accommodate and provide first aid treatment to all persons recovered during an emergency, as well as provide dignified handling of non-survivors. The spaces, facilities and supplies should be adequate to provide a reasonable level of comfort for survivors for the anticipated duration of their stay on board.

Appropriate means of achieving this goal include those described in the following subsections.

## **3.1 Decontamination Area**

The vessel should be fitted with a designated decontamination area for cleaning survivors upon retrieval and prevent contamination of the vessel's living spaces. The area should be:

- a) Sheltered from the elements and oncoming seas though it does not have to be fully enclosed; and

- b) Equipped with a washing arrangement capable of providing warm water, approximately between 21°C and 25°C.

### **3.2 Survivor Reception**

A suitable enclosed area(s) with access to the accommodations should be designated to process able-bodied survivors (e.g. registration, distribution of sundries, etc.).

### **3.3 Treatment Room**

The vessel should be fitted with a separate, dedicated, treatment room whose deck area should be no less than 15m<sup>2</sup> and fitted to include:

- a) A treatment table, accessible from at least both sides and one end, fitted with a mounted adjustable lamp;
- b) An arrangement to secure 2 occupied stretchers in place horizontally that permits access for care and treatment of injured persons;
- c) The medical equipment and supplies described in Section 3.5;
- d) A hand wash basin with hot and cold water supply;
- e) A moveable instrument table, capable of being secured onto the treatment table;
- f) A hands-free communication system, to allow communications with medical advisors offshore and onshore;
- g) A bulkhead-mounted clock;
- h) Lockable medical chest or a cabinet; and
- i) A waste bin.

NOTE 1: The treatment table itself cannot count as one of the stretcher securing arrangements required by (b)

NOTE 2: The arrangement to secure two occupied stretchers in place must be such as to a) withstand the weight of an average offshore worker, b) ensure effective securing to prevent movement in adverse weather and c) allow a first aid provider to comfortably access the casualties on both stretchers.

### **3.4 Accommodations and Supplies**

#### **3.4.1 Deck Area**

An adequately sheltered, heated, ventilated and lit deck area of at least 0.75m<sup>2</sup> should be available for each person that the vessel is rated for as per the AC-SBV DOC. The following areas may not count towards this requirement:

- a) Galleys and food storage areas;
- b) Navigating bridge;
- c) Engine room spaces, including the Engine Control Room; and
- d) Any areas covered by permanent furnishings, other than bunks or seating appliances.

NOTE 1: In determining the space requirements, a bunk or fixed seat counts as space for one person.

NOTE 2: Some deck space in the navigating bridge may be counted as deck area for survivor accommodation, provided it can be effectively demonstrated that the vessel can be safely navigated with the corresponding number of survivors present.



### **3.4.2 Bunks and Washrooms**

The number of bunks available on the vessel should be at least equal to 10% the number of persons that the vessel is rated for as per the AC-SBV DOC, plus an additional 3 bunks reserved for use by the vessel's crew. A deck area of at least 1.6m<sup>2</sup> within the accommodations may count towards fulfillment of this requirement in lieu of a bunk, provided it can be fitted with a suitable mattress.

Furthermore, the vessel should be fitted with one toilet, one wash basin and one shower for every 25 persons that the vessel is rated for as per the AC-SBV DOC.

### **3.4.3 Water and Food**

The vessel should carry adequate ratios of water and food per person it is rated for as per the AC-SBV DOC (e.g. at least fifteen (15) litres of potable water and five (5) servings of soup or stew per person).

These supplies will have to be carried on board over and above the supplies needed for the vessel's crew and reserved solely for consumption by survivors.

### **3.4.4 Sundries**

The vessel should carry at least the following sundry items per person it is rated for as per the AC-SBV DOC:

- A woolen blanket;
- A pair of disposable coveralls;
- A pair of woolen socks; and
- A bath towel.

Furthermore, the vessel should carry the number of sleeping bags equal to 10% the number of persons it is rated for as per the AC-SBV DOC.

## **3.5 Medical Equipment, Supplies and Support**

The vessel should be equipped with:

- a) At least one approved Automatic External Defibrillator (AED); and
- b) The first aid equipment, supplies and medications described in Appendix 2.

All medical equipment and supplies should be inspected, calibrated and certified in accordance with Section 6.

The vessel should have arrangements in place to obtain medical support and advice from a physician at any time (24/7). The physician should be certified to practice medicine in Canada and have specialized knowledge in the treatment of the safety and health problems that may be encountered in the oil and gas industry.

## **3.6 Non-Survivors**

The vessel should have suitable designated space(s) for storing the number of non-survivors equal to 10% the number of persons the vessel is rated for as per the AC-SBV DOC, or the full complement of the helicopter servicing the installation, whichever is greater. An equal number of body bags should be available.

The arrangement should be such that the non-survivors can be handled with dignity and secured in place in body bags without being stacked on top of each other. The space(s) should be cool, ventilated and illuminated.

#### **4. CREWING, TRAINING AND DRILLS**

**Goal: The vessel is suitably crewed with qualified, trained and competent personnel capable of providing the necessary emergency services.**

In fulfilling this goal, the vessel should be crewed with appropriate complement of certified, qualified, trained and medically fit personnel who have demonstrated their ability to respond safely and effectively to potential emergency situations on the installation, including total evacuation/mass casualty scenarios.

Appropriate means of achieving this goal are detailed in the following subsections.

##### **4.1 Vessel's Complement**

**Goal: The size and composition of the crew is sufficient to enable them to safely operate the vessel and implement the emergency response plans.**

At a minimum the vessel's complement should be such as to meet the following:

- a) Comply with the provisions of Safe Manning Document issued by the flag state;
- b) Achieve the performance criteria described in Section 1.6; and
- c) In addition to the FRC crew(s) and the crewmembers required to operate the powered survivor retrieval device, allow for 2 dedicated first aid providers and 1 crewmember in attendance at the rescue zone to assist survivors.

##### **4.2 Training and Qualifications of Personnel**

Notwithstanding Section 4.3 below, the vessel's crew should be compliant with the applicable regulatory requirements related to personnel qualifications, certification, training and medical fitness, as well as the requirements of Section 7 of the Atlantic Canada TQSP.

The designated FRC crew should meet the criteria for proficiency in FRBs, described in the STCW Code, Part A, Chapter VI.

##### **4.3 Hydrogen Sulphide / Hazardous Gas Awareness**

All crew should hold a valid recognized Hydrogen Sulphide (H<sub>2</sub>S) training certificate, meeting the requirements of the Atlantic Canada TQSP, Section 2.5.

However, if it can be demonstrated that the vessel will only operate in fields where H<sub>2</sub>S is not present or a potential hazard, in-house familiarization training may be accepted in lieu of the formal training. In such cases an annotation should be added to the vessel's AC-SBV DOC, indicating that the crew does not have formal Hydrogen Sulphide (H<sub>2</sub>S) training.

If other hazardous gases are a risk in the vessel's operating area (e.g. combustible gases) the crew should be provided with training in the relevant detection and emergency response procedures.

#### **4.4 Crew Organization for Emergencies**

**Goal: The vessel has an established crew organization for responding to installation and helicopter emergency situations.**

The vessel should have an established and documented crew organization plan on board for responding to installation and helicopter emergencies.

This plan should describe each crewmember's role and specific duties in the response mechanism to ensure the vessel can meet the emergency response performance outlined in Section 1.6 and the requirements of Section 4.1, including:

- a) Identification of the person in charge;
- b) Bridge and engine room attendance, including lookouts, as appropriate;
- c) Launching and crewing the FRC(s);
- d) Deploying and operating the survivor retrieval equipment;
- e) Rescue zone attendance to receive, assist and process survivors;
- f) Identification of the senior and assistant first aid providers; etc.

#### **4.5 Crew Familiarization**

**Goal: The crew is familiar with the emergency response systems and equipment on the vessel and installation, in order to respond effectively.**

##### **4.5.1 Familiarization with the Standby Vessel**

Prior to taking over standby duty, the vessel's crew should be thoroughly familiarized with:

- a) The layout of the vessel's survivor recovery equipment and accommodation facilities;
- b) The vessel's crew organization plan described in Section 4.4, and in particular their duties within that plan; and
- c) Deployment and operation of the vessel's survivor recovery equipment.

In addition, the Master and senior officers of the standby vessel should be thoroughly familiarized with the *Standby Operations Plan* in its entirety (see Section 5.2).

Records of these familiarizations should be maintained (e.g. checklist).

##### **4.5.2 Familiarization with the Installation's Plan**

The vessel's crew should be familiarized with the installation(s) to be serviced through training, including:

- a) Installation general layout;
- b) Subsea structure general layout;
- c) Alarms and their meaning;
- d) Muster points;
- e) Gas dispersion modeling;
- f) Gas release procedures specific to the standby vessel;
- g) Location of lifeboats and liferafts; and

- h) Lifeboat specifications and in particular the towing arrangement/procedure.

#### **4.6     *Emergency Response Drills and Trials***

**Goal: The crew is competent in responding effectively and efficiently to emergencies and providing the necessary emergency services.**

##### **4.6.1   *General***

The conduct of frequent and realistic drills and periodic trials is essential for maintaining and demonstrating the vessel's high level of preparedness to respond effectively to an emergency on the installation. Where practicable, the standby vessel's drills should be carried out in conjunction with offshore installations.

Drill debriefing sessions should be carried out to identify opportunities for improvement and take action accordingly.

Records of drills and trials should be maintained, including the chronology of drill activities and identified improvement opportunities, along with associated corrective or preventative actions.

NOTE 1: It is recognized that multifunction vessels may sometimes not spend much time on standby duty and therefore the intervals between drills may not be consistent; however it is expected that the frequency of drills will be maintained as much as practicable and, regardless, over the course of the year the required number of drills will have been carried out.

NOTE 2: The Master of the vessel is responsible for ensuring that drills and exercises are carried out under safe conditions, whereby their conduct does not pose a threat to the safety of the crew, vessel, or the environment. With that in mind, the Master has overriding authority to decide when to conduct drills.

##### **4.6.2   *FRC Drills***

FRC drills should be carried out at least twice per crew rotation but not less than twice per month. Drills should consist of launching the FRC and manoeuvring it in the water for at least 10 minutes, while conducting a specified emergency response task (i.e. man overboard exercise, search for a missing person, or towing a liferaft or lifeboat, etc.). Where the vessel is required to carry more than one FRC, the drill should involve concurrent deployment of all FRCs.

Where an FRC drill has not taken place within the preceding 2 weeks, the vessel should conduct an FRC drill as soon as practicable after taking over standby duty.

##### **4.6.3   *Mass Rescue Operations Drills***

Mass Rescue Operations drills should be carried out at least once per crew rotation and should include the following:

- a) Crewmembers assuming their assigned duties as per the response plan (see Section 4.4);
- b) Launching and manoeuvring the FRC(s) (which may count towards fulfilling the requirements of 4.6.2);
- c) Deploying all survivor retrieval equipment;
- d) Preparing the treatment room and all survivor accommodation spaces;

- e) Practicing survivor search techniques;
- f) Transferring a stretcher from the rescue zone to the treatment room and from the treatment room to the helicopter winching area;
- g) Practicing the procedures and arrangements for survivor decontamination, reception and processing; and
- h) Demonstration of the lifeboat towing arrangement.

#### **4.6.4 Performance Trials**

**Goal: The crew is able to demonstrate competency and capability in responding effectively and efficiently to emergency situations.**

The vessel should undertake performance trials to verify that the emergency response performance described in Section 1.6 is met. The trials should be conducted twice in any 5-year period, with the first carried out before or during the initial/renewal AC-SBV DOC survey and the second between the second and third annual surveys.

The trials should be conducted in accordance with the guidance provided in Appendix 5.

These trials should be witnessed by the Classification Society, or other third party recognized by the Boards, and may coincide with the vessel's annual survey (see Section 7.3). These trials may also count towards fulfilling the number of drills required by 4.6.3.

### **5. PROCEDURES AND PLANS**

**Goal: The vessel has in place documented procedures and plans to facilitate effective emergency response operations.**

In fulfilling this goal, the vessel should have in place documented plans and procedures governing the conduct of all normal and emergency response operations associated with its role as a standby vessel. Furthermore the vessel should carry on board the required documents and publications, as well as the records necessary to verify that the provisions of these guidelines are observed.

Appropriate means of achieving this goal are described in the following subsections.

#### **5.1 Documents and Publications**

Within the scope of the AC-SBV Guidelines, the vessel should carry on board:

- a) A current copy of these guidelines;
- b) All the documents and records described in these guidelines, including procedures, manuals, plans, drawings, certificates, reports, etc.; and
- c) The current edition of the International Aeronautical and Maritime Search and Rescue Manual, Volume III, Mobile Facilities, published by the IMO.

#### **5.2 Standby Vessel Operations Plan**

The vessel should carry on board a *Standby Operations Plan*, which may consist of references to other documents and manuals, providing the following information:

- a) A Standby Vessel General Arrangement drawing showing the location of the following:

- i) Rescue zone and marking,
  - ii) Helicopter winching area,
  - iii) Treatment room,
  - iv) Survivor decontamination, reception, and accommodation areas,
  - v) Non-survivor storage area, and
  - vi) Rescue equipment;
- b) The crew organization for responding to installation emergencies, as described in Section 4.4;
- c) The vessel's arrangements for obtaining medical support and advice from a physician at any time (24/7), as described in Section 3.5;
- d) A description of all the rescue and recovery equipment and arrangements;
- e) A description of the means for de-icing the rescue equipment and areas, described in Section 2.6;
- f) The procedures for normal field operations, outlined in Section 5.3;
- g) The procedures for emergency response and rescue operations, outlined in Section 5.4;
- h) Crew familiarization procedures described in Section 4.5.1;
- i) Procedures outlining the frequency and content of the drills described in Section 4.6;
- j) Procedures detailing the rescue and recovery equipment inspections, maintenance and testing activities described in Section 6;
- k) Pertinent installation emergency response plan information, specific to the installation(s) the vessel is assigned to at any given time, as described in Section 4.5.2.

### **5.3 Procedures for Normal Field Operations**

The vessel should have in place documented procedures regarding the following:

- a) Ensuring that the vessel is in all respects ready for rescue and recovery operations, prior to taking over standby duty;
- b) Entering the installation's safety zone;
- c) Recording the dates and times when the vessel assumes, or is released from, standby duty, as well as cases where the vessel's ability to meet the readiness requirements of Section 1.7 is compromised;
- d) Assuming the helicopter and close standby positions;
- e) Routine communications with the installation;
- f) Monitoring vessel traffic in the area; and
- g) Operations that the vessel is allowed to carry out while on standby duty.

### **5.4 Procedures for Emergency Response and Rescue Operations**

The vessel should have in place documented procedures regarding the following:

- a) Responding to the following emergency situations:
  - i. Person overboard,
  - ii. Installation evacuation,
  - iii. Helicopter ditching/crash,
  - iv. Gas release,
  - v. Errant vessel collision avoidance, and
  - vi. Any other potential emergency situation as detailed in the installation's emergency response plan;
- b) Methods and arrangements for immediately discontinuing any permitted simultaneous operations to respond to an emergency situation on the installation;
- c) Deployment of all survivor rescue equipment, inclusive of the FRC(s), powered survivor retrieval device and climbing aids;

- d) Receiving, registering and processing survivors, in accordance with an established triage system, including identification of survivors as to their triage category (see Appendix 3 for an example of a broadly accepted triage system);
- e) Reporting non-survivors to the authorities and keeping relevant records;
- f) Handling and care of non-survivors; and
- g) Connecting towlines to, and towing, lifeboats and liferafts, as well as retrieving personnel from within a lifeboat or liferaft.

## 6. EMERGENCY RESPONSE EQUIPMENT INSPECTIONS, MAINTENANCE AND TESTING

**Goal: The vessel's emergency response equipment is reliable and ready to respond in an emergency situation.**

In fulfilling this goal all rescue, recovery and medical equipment necessary for the vessel to successfully perform the emergency response operations should be maintained in a high state of reliability and readiness at all times. Specific measures may be necessary to increase the reliability of *critical* equipment and systems, the sudden operational failure of which could result immediately in a hazardous situation or compromise the vessel's ability to respond effectively to an emergency.

All equipment required for the vessel's emergency response and rescue role should be under a comprehensive system of inspections, maintenance and testing, in accordance with applicable regulatory requirements, Classification Society rules, manufacturer's recommendations and good seamanship practices.

The inspection, maintenance and testing program for all lifesaving appliances of the vessel (e.g. FRCs, davits, lifebuoys, etc.), should at a minimum comply with the provisions of the applicable regulations.

In addition to the above, the following should be observed:

- a) Recognizing the crucial importance of the FRC(s) and its launching arrangement, additional measures should be implemented to enhance its reliability, including:
  - i) A stringent program of periodic inspections, maintenance, testing and servicing, in accordance with the manufacturer's specifications, and
  - ii) A spare parts program, whereby one set of critical spare parts for each identical FRC, as prescribed by the manufacturer, is carried on board and inventoried, covering all critical components of the craft and its launching device (e.g. hydraulics, winch, engine, controls, etc.);
- b) The powered survivor retrieval device and climbing aids referred to in Section 2.2 should be:
  - i) Inspected visually for integrity and function-tested, at least on a monthly basis, and
  - ii) Maintained and serviced in accordance with the manufacturer's recommendations;
- c) The gas detection equipment referred to in Section 2.4 should be:
  - i) Confirmed functional at least monthly, and
  - ii) Calibrated at intervals specified by the equipment's manufacturer, but in any event not exceeding 12 months, using established methods specified by the manufacturer;
- d) Biomedical equipment (e.g. AEDs, suction units, blood pressure cuffs, oxygen flow meters, etc.) should be inspected and calibrated on an annual basis by a qualified Biomedical Equipment Technician/Technologist (BMET);

- e) The vessel's medical equipment and supplies should be surveyed on an annual basis by a qualified medical services provider certified to practice medicine in Canada, to verify it complies with Section 3.5 with a relevant certificate issued to the vessel.

Where appropriate, some of the above routines may be conducted as part of the drills required by Section 4.6.

Records of all the above activities should be maintained on board, including identification of the individuals performing each task, as well as a detailed description of the work carried out, any defects identified and any repairs completed.

## **7. SURVEYS AND CERTIFICATION**

### **7.1 *Recognized Classification Societies***

The following Classification Societies are recognized to survey vessels for the purpose of verifying compliance with these guidelines and issuing AC-SBV DOCs:

- ABS;
- BV;
- DNV.GL; and
- LR.

### **7.2 *Vessel Certification***

An "Atlantic Canada Standby Vessel Document of Compliance" (AC-SBV DOC), in the format shown in Appendix 4, should be issued to a vessel that has been surveyed by a recognized Classification Society and found in compliance with these guidelines, in accordance with Section 7.3.

The AC-SBV DOC should be valid for 5 years, subject to annual endorsements, any annotations added by the Classification Society, or any other additional conditions that may be imposed by the Boards.

In certain circumstances (e.g. cases where interpretation requests arise during a vessel survey that may affect the issuance of its AC-SBV DOC) the Boards may authorize the Classification Society to issue a short-term AC-SBV DOC, valid for 30 days. Subsequently, the short-term DOC may be voided or extended depending on the Boards' decision. However, depending on the nature of the issue at hand, the Boards may immediately upon receipt of the interpretation request direct the Classification Society to not issue an AC-SBV DOC to the subject vessel.

### **7.3 *Vessel Surveys***

An initial survey should be carried out by a recognized Classification Society at the request of the vessel's authorized representative for the issuance of the AC-SBV DOC.

Annual surveys should be completed within 3 months before and after the anniversary of the initial survey, to have the AC-SBV DOC endorsed.

Renewal surveys for the purpose of reissuing the AC-SBV DOC should be completed within 3 months prior to the expiry of the AC-SBV DOC.



Any significant changes to the vessel or emergency response equipment/capabilities that may impact the validity of the AC-SBV DOC will invalidate same and require the vessel to be resurveyed.

Each survey should include:

- a) A comprehensive assessment of the vessel's equipment, survivor accommodations and facilities, personnel certification and qualifications and conduct of required drills, as well as procedures and arrangements, to verify compliance with these guidelines; and
- b) Verification that the performance trials described in Section 4.6.4 have been completed successfully.

When AC-SBV surveys are requested, the Classification Societies should notify the Board whose jurisdiction the vessel intends to operate in at the time.

The C-NLOPB and CNSOPB retain their authority to attend any of the above surveys, tests and trials and exercise their authorities within the framework of the relevant Acts.

## **8. ENFORCEMENT, REVIEW AND REVISION**

### **8.1 *Coming into effect***

These guidelines are effective as of June 5, 2016.

Nonetheless, vessels already issued with a Letter of Compliance against the TP 7920 Standard prior to June 5, 2015 are granted the following exemptions:

- a) Water spray systems (Section 1.4), until June 5, 2021.

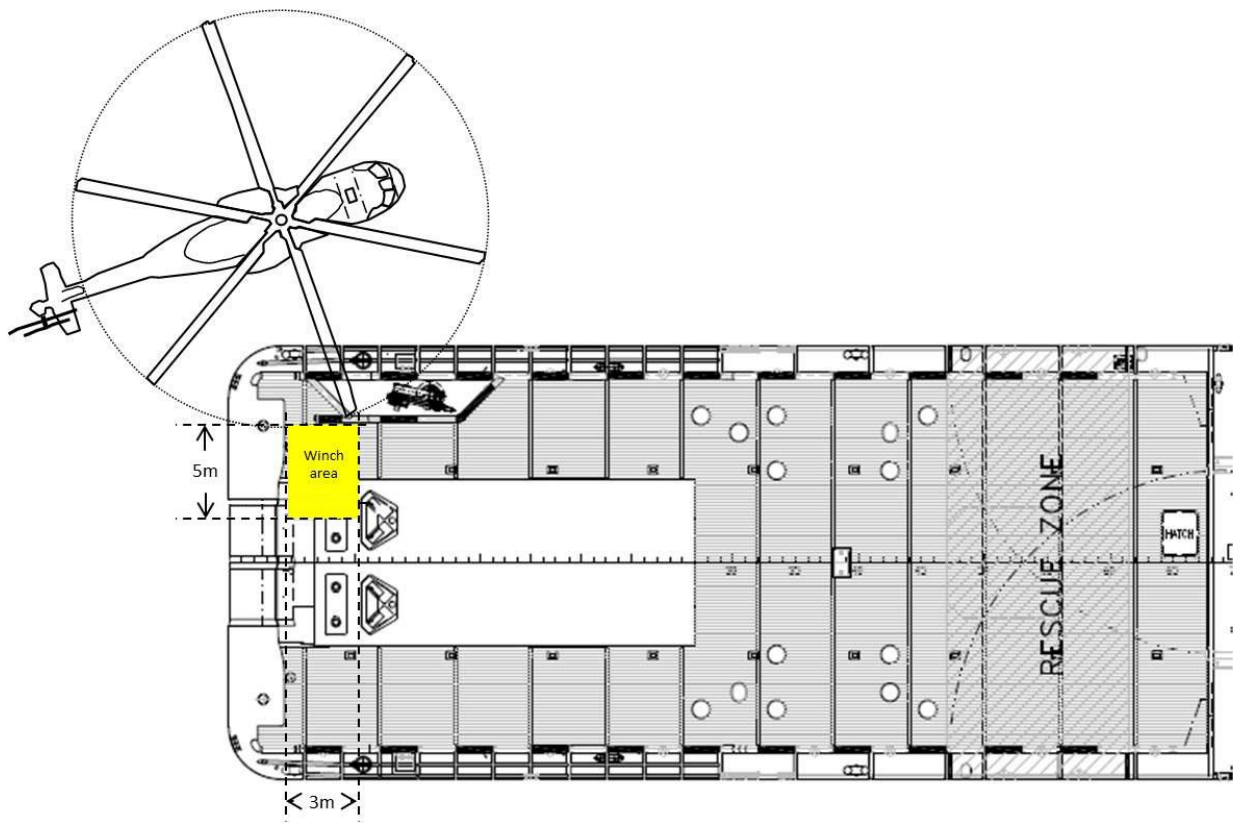
### **8.2 *Review and Revision***

The Boards will review these guidelines at least every five (5) years, or more frequently if necessary, taking into consideration stakeholder inputs, interpretation/clarification requests and experience gained through the application of the guidelines, and in particular the surveying and certification process, to determine if any revisions are necessary.

If it is determined that any material changes may be required, consultation sessions shall be arranged with interested parties (e.g. offshore petroleum operators, authorized representatives, workforce representatives, Classification Societies, etc.) to discuss the proposed revisions.

Based on the outputs of the above processes, draft revisions shall be submitted to the Boards for further review and subsequently the revised guidelines shall be presented to the Boards for final approval and publication.

## APPENDIX 1: HELICOPTER WINCHING AREA



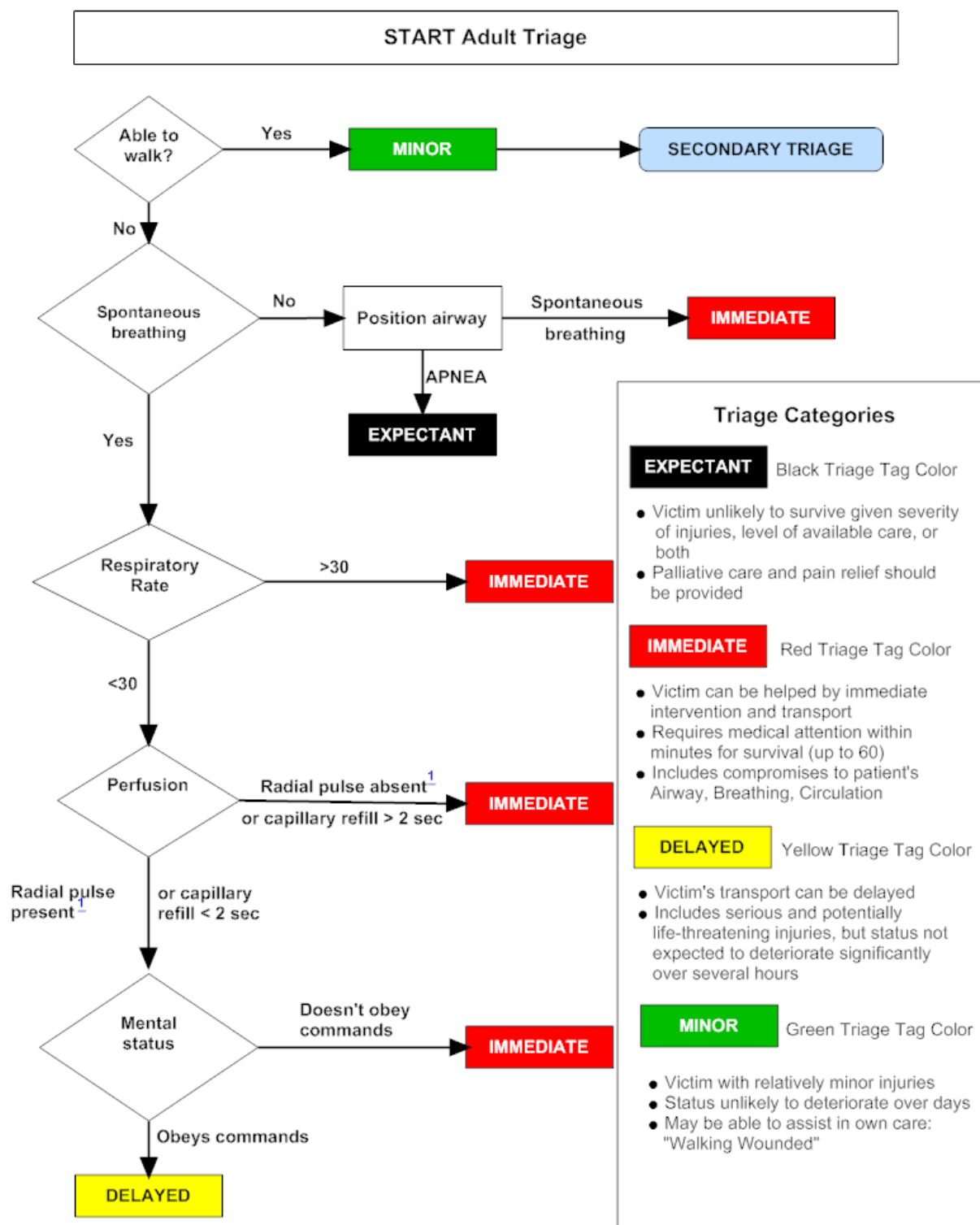
## APPENDIX 2: LIST OF FIRST AID EQUIPMENT, SUPPLIES AND MEDICATIONS

First Aid supplies for use by persons holding Advanced First Aid for Mariners, Level II Certificate		
Category	Item Description	Quantity
Diagnostic Equipment	Stethoscope – combination, standard length	2
	Blood Pressure Machine – Aneroid type, complete	2
	Flashlight – 2 cell, plastic	2
	Rectal Thermometer – low level reading, 20°C to 40°C, complete with case	12
	Oral Thermometer	2
Respiratory System	Medical Oxygen Cylinder – D size, packaged for transport	5
	Oxygen Cylinder Attachment – Duplex T <sup>1</sup>	5
	Oxygen Masks – disposal, non-rebreathing	10
	Oxygen Flowmeter	10
	Oxygen Tubing	10
	Bag Resuscitator with 100% oxygen attachment	2
	Airway – adult, transparent, anatomical profile with insert	12
	Laerdal® Pocket mask – Standard Model	3
	Suction Catheter – with control vent, transparent Size 14Fr complete with suction tubing	12
	Portable Suction – Laerdal ® <sup>2</sup>	2
Cardiovascular System	Tourniquet non latex, 1.5 cm x 30 cm	10
Gastrointestinal System	Plastic Fracture Bed Pan - Adult	2
	Large Ziploc Bags or equivalent	25
Genitourinary Systems	Plastic Urinal (1 litre capacity)	2
	Plastic Disposable Urine Bag <sup>3</sup>	25
Musculoskeletal System	Speedsplint®	24
	Cervical Collar – hard – stiffneck select <sup>4</sup>	2 per 100 Survivor
	Stretcher – wire basket – with flotation and hoist <sup>5</sup>	5
	Spine Board with Straps – folding type available for storage	2
	LIT-O-Splint (or wooden spineboard)	10
	Rescue Stretcher – Miller® or equivalent <sup>6</sup>	2
	Ace® Bandage – 10 cm (4")	20
	Triangular Bandage – muslin cotton, 100 cm	20
Skin	Traction Splint – Speedsplint® or equivalent <sup>7</sup>	2
	Burn Dressing Kit – Roehampton® Emergency	2 per 100 Survivors
	Gauze Dressing – 3x3's or 4x4's (sterile) 100/box	1 Box per 100 Survivors
	Gauze Dressing – 3" Kling ® non-sterile, 12/pkg	1 Pkg per 100 Survivors
	Abdominal Dressing Pad – Sterile – 15cmx20cm	5 per 100 Survivors
	Non-allergic Adhesive Tape – 2.5cm roll – Dermicil® or equivalent	10
	Band-Aids – assorted box of 100, 2 cm x 8 cm	2 Box
	Paper Tape Closure Strip – Steri-Strip® or equivalent ¼" box 100	1 Box
	Elastoplast® or equivalent – 8 cm x 4.5 cm	1 Box
	Non-Stick Dressing Pad – Telfa® or equivalent – 8	1 Box

Eyes, Ears, Nose	Eye pad – sterile, single package	10
Other:	Thermal Recovery Capsule(s)® or equivalent	2 per 100 Survivors
	Hypothermia Blankets-Lightweight foil pattern	10 per 100 Survivors
	Triage Tags – durable material, 5 x 10 cm	Max Number of Survivors
	Safety Pins – medium size	100
	Pen / Pencil – waterproof ink	2
	Disposable Gloves	1 Box per 100 Survivors
	Ring Cutter – heavy duty	1
	Scissors – heavy duty all-purpose utility with serrated edge – 20 cm size	5
	Scissors – standard bandage scissors 14 cm	2
	Syringes 3ml luer-lock	10 per 100 Survivors
	Needles 23G 5/8 inch	10 per 100 Survivors
	Needles 20G 1 ½ inch	10 per 100 Survivors
<b>Equivalencies</b>		
<sup>1</sup> 10 single “D” size cylinders with attached single regulators or 1 Multilator 6-patient delivery system with a PSI Industrial Oxygen Adapter attached plus 4 single oxygen regulators with “D” sized tanks <sup>2</sup> Battery Rechargeable suction unit <sup>3</sup> Emesis / convenience bags <sup>4</sup> Hard or stiffneck selects-style collars <sup>5</sup> Wire baskets or hard body orange “Ferno” style <sup>6</sup> Ashton-Water, Robinson, Scoops stretchers are also considered appropriate equivalencies <sup>7</sup> Femoral traction, Sager or Thomas Splints are also considered appropriate equivalencies		
<b>Medications</b>		
<b>Item Description</b>		<b>Qty.</b>
**Dimenhydrinate (Gravol) 50mg/ml Ampoules		10 per 100 Survivors
Dimenhydrinate (Gravol) 50mg Suppositories		12 per 100 Survivors
Dimehydrinate Tablets 50mg		100 per 50 Survivors
Scopolamine (Transderm V Systems ® )		10 per 100 Survivors
ANAKIT / Adrenalin 1:1,000 Epipen		1 per 100 Survivors
Normal Saline for Irrigation 500ml/ea (burns/wounds/ eyes)		10 per 100 Survivors
Acetaminophen 500mg		100 per 100 Survivors
Ibuprofen 200 mg		100 per 100 survivors
**Morphine 10mg/ml 1 ml ampoules		10 per 100 Survivors
** Denotes medication that can be administered with physician telephonic support		

<b>Supplies and Medications for use by a licensed health care professional (Paramedic, Registered Nurse, or Physician)</b>	
<b>Item Description</b>	<b>Qty.</b>
IV Solution (1000ml) – Normal Saline 0.9%	24
Solution Administration Set (Adult, 10 drops/ml)	12
IV Start Packs	12
IV Catheters (18G 1 ¼" )	12
IV Catheters (16G 1 ¼")	12
King LT-D Size 4	2
King LT-D Size 5	2
Vessels not complying with Transport Canada SOR 2010/120 August 8, 2011 Section 114 and 115; must carry the following:	
**Midazolam (Versed) Injection 5mg/ml 5ml ampoules	10
**Diazepam (Valium) 5mg tabs	50
Disposable Suture Sets (With 2-0, 3-0 silk & 2-0, 3-0 Chromic)	3
Ceftriaxone (Rocephine) 1gm Injection	15
** Denotes medication that can be administered with physician telephonic support	

### APPENDIX 3: EXAMPLE OF TRIAGE SYSTEM (START ADULT TRIAGE)



### START Adult Triage Algorithm: Text Version

- Page graphics illustrate 2 concepts:
  - 4 distinct clinical triage categories for mass casualty patients, with each category assigned a distinct name and color
  - One algorithm suggesting how to triage patients into these 4 categories
- How this information would be used in a mass casualty event:
  - Emergency first clinical responders would follow the clinical algorithm to evaluate each patient and assign a triage category and color based on various clinical parameters. The information would be noted on the triage tag attached to the mass casualty victim.
  - Rescuers following after the triage officer would view the color and text of the triage tag and take appropriate action.
- Clinical parameters used to evaluate patients include:
  - Ability to walk
  - Presence or absence of spontaneous breathing
  - Respiratory rate greater or less than 30 per minute
  - Perfusion assessment using either the palpable radial pulse or visible capillary refill rate
  - Mental status as assessed by ability to obey commands.
- The 4 Triage Categories are:
  - Minor: Green Triage Tag Color
    - Victim with relatively minor injuries
    - Status unlikely to deteriorate over days
    - May be able to assist in own care: also known as "walking wounded"
  - Delayed: Yellow Triage Tag Color
    - Victim's transport can be delayed
    - Includes serious and potentially life-threatening injuries, but status not expected to deteriorate significantly over several hours
  - Immediate: Red Triage Tag Color
    - Victim can be helped by immediate intervention and transport
    - Requires medical attention within minutes for survival (up to 60 minutes)

- Includes compromise to patient's airway, breathing, and circulation (the ABC's of initial resuscitation)
- Expectant: Black Triage Tag Color
  - Victim unlikely to survive given severity of injuries, level of available care, or both
  - Palliative care and pain relief should be provided



#### APPENDIX 4: FORM OF THE AC-SBV DOC

Classification Society logo

### ATLANTIC CANADA STANDBY VESSEL (AC-SBV)

#### DOCUMENT OF COMPLIANCE

**NAME OF VESSEL:** \_\_\_\_\_  
**PORT OF REGISTRY:** \_\_\_\_\_  
**IMO NUMBER:** \_\_\_\_\_  
**CALL SIGN:** \_\_\_\_\_  
**GROSS TONNAGE:** \_\_\_\_\_

#### THIS IS TO VERIFY THAT:

1. The vessel has been surveyed on (yyyy/mm/dd) in accordance with the provisions of the Atlantic Canada Standby Vessel (AC-SBV) Guidelines.
2. The vessel's performance, equipment, survivor accommodations and facilities, and crew competency, as well as its procedures and arrangements, comply with the AC-SBV Guidelines.
3. To meet the performance requirements for standby operations, outlined in the AC-SBV Guidelines, the number of persons comprising the crew, including the Master, is \_\_\_\_.
4. The vessel is suitable to perform standby services for offshore installations with a complement of \_\_\_\_\_ persons, subject to any conditions described below, as well as operational requirements described in the AC-SBV Guidelines.

This document is valid until (yyyy/mm/dd) and subject to annual surveys.

Range for annual surveys: from (mm/dd) to (mm/dd)

Issued at: \_\_\_\_\_

Date: \_\_\_\_\_

Authorized Surveyor:

Name (print): \_\_\_\_\_ Signature & Stamp: \_\_\_\_\_

REMARKS AND/OR CONDITIONS	

**Endorsement for annual surveys**

THIS IS TO VERIFY that at an annual survey the vessel was found in compliance with the provisions of the AC-SBV guidelines.

**1<sup>st</sup> Annual Survey**

Place:		Date:	
Name (Print):		Signature & Stamp:	
REMARKS			

**2<sup>nd</sup> Annual Survey**

Place:		Date:	
Name (Print):		Signature & Stamp:	
REMARKS			

**3<sup>rd</sup> Annual Survey**

Place:		Date:	
Name (Print):		Signature & Stamp:	
REMARKS			

**4<sup>th</sup> Annual Survey**

Place:		Date:	
Name (Print):		Signature & Stamp:	
REMARKS			

## APPENDIX 5: PERFORMANCE TRIAL PROCEDURES

### 1.0 Introduction

The purpose of the following is to achieve a common approach to validation of performance standards, and to ensure effective arrangements, in the recovery, rescue and transport of survivors to a place of safety, pursuant to Section 70(1)(b) of the *Drilling and Production Regulations*.

For validation of these baseline performance standards the following procedures are suggested for survivor recovery trials. The objective of such trials is to test the vessel and crew for the “worst expected case” which can be demonstrated by four distinct exercises as detailed in Section 1.6.

For the purposes of conducting the trials the worst case scenario would be with the Standby Vessel located at the most distant location from the installation permitted under the regulations (i.e. at vessel maximum speed, vessel located 20 minutes from the installation).

NOTE 1: In conducting the trials, interested parties should bear in mind that the number of crew that participate in the exercise will be the minimum complement reflected in the vessel's AC-SBV DOC for standby compliance.

NOTE 2: Any observers or additional crew on board at the time of the trial, including third party representatives witnessing the trial on behalf of the Boards, may not participate in the trial in any capacity, including providing advice to the vessel's crew, during the conduct of the exercise.

### 2.0 The Trials

The trial should commence by sounding the alarm and throwing in the water the appropriate number of mannequins, at a distance equal to that required for the vessel to reach their location within 20 minutes, at maximum speed. The starting condition for the trial will be with all rescue equipment in normally stored positions, crew maintaining a normal watch for a Standby Vessel station-keeping mode with main propulsion system aligned accordingly and off-watch crew stood down and positioned in normal off-watch locations (e.g. dining room, cabins, or gym). Subsequently, the crew assigned those responsibilities on the organization plan should perform the following tasks within the time frames specified in Section 1.6:

- a) Launch the FRC(s) within 5 minutes;
- b) Make the powered survivor retrieval device ready for deployment within 20 minutes;
- c) Deploy the climbing aids within 5 minutes; and
- d) Complete retrieval of all mannequins using the FRC(s) and the powered retrieval device concurrently, with at least one mannequin retrieved using the latter, within 75 minutes.

Note: Although these can be conducted as discrete and separate trials, they may be conducted sequentially as one trial. However personnel conducting these trials must be in accordance with section 4.1 of the guideline and in no case may a person be double-tasked.

Trials should be conducted using mannequins of appropriate weight and representative dimensions of the average offshore worker.

While the mannequins are being brought on board, the assigned crewmembers will be simulating the processing of survivors (and non-survivors) onboard the Standby Vessel by taking the mannequins through decontamination, reception, triage and treatment. One of the mannequins should be transferred by stretcher from the rescue zone to the treatment room and from there to the helicopter winching area. All communication links shall also be established and tested between the bridge, rescue zone, FRC, helicopter winching area and treatment room as well as those between the treatment room medic and the medical authorities ashore. In addition to recording the critical times associated with the conduct of the trials, the Classification Society surveyor, or other third party recognized by the Boards, shall include commentary in the trial report on the successful completion (or otherwise) of onboard processing, treatment and/or care of survivors and non-survivors as well as the survivor facilities and communications systems. For ease in documentation, this portion of the trial can be conducted outside the timed portion of the trial.

As far as the safety of personnel and the Standby Vessel permit, the trials should not be conducted in benign waters. The weather conditions during the trials should simulate routine operating conditions and must always be suitably assessed for any inherent risks prior to commencement. Where exercises are conducted in conditions of reduced visibility or darkness, appropriate locating equipment should be supplied. Any exercises to be conducted in darkness should be carried out just prior to dawn such that the ensuing daylight may aid any corrective actions in the event of incident during the trials.

The Master of the vessel maintains overriding authority to decide whether the trials can be conducted safely given the prevailing environmental conditions at the time.

### **3.0 Standby Vessel Trial Procedures and Recording of Data**

Trials could be split into manageable separate components each of which is individually timed. Alternately, they may be conducted sequentially as one exercise if safe to do so.

Trial data to be collected and documented in the trial report and maintained onboard the Standby Vessel:

A complete description of the vessel, including vessel owner and names of crew participating in the trial shall be recorded and documented in the trial report. Trial reports shall be maintained on the standby vessel.

In addition, the following information shall be recorded in the trial report:

- The location coordinates and area description;
- Weather conditions at beginning and end of the trial including temperature, wind conditions, visibility and significant wave height;
- Local time at beginning of trial;
- Number of mannequins thrown in the water;
- Local time at completion of trial;
- Names and contact information for attending Classification Society Surveyors, or other recognized third party;

- Details and verification of equipment utilized during the trial including timing devices specification and calibration as well as coordination between Standby Vessel and any other coordinating vessels, details and weights of mannequins, etc.;
- Commentary in the trial report on the successful completion of (or otherwise) onboard processing, treatment and/or care of survivors and non-survivors as well as the survivor facilities and communications systems;
- Any other relevant trial conditions and details deemed relevant for the attending Surveyor or other recognized third party; and
- The following critical times shall also be recorded and documented:

Part A - The launching procedure and transit to first casualty;

- Time - Alarm to FRC in water

Part B – Powered Retrieval Device Ready for Deployment

- Time – Alarm to powered retrieval device ready for deployment
- Time – Powered retrieval device ready for deployment to fully deployed

Part C – Climbing aid Deployment

- Time – Alarm to climbing aid deployed

Part D – Performance Trial

- Time – Alarm being raised
- Distance - Bearing and Distance to scene of incident
- Time – Alarm to FRC in water
- Time – First casualty recovery via FRC (i.e. in FRC)
- Time – First casualty recovery via FRC onboard Standby Vessel
- Time – Arrival at scene of incident
- Time – Powered retrieval device deployed
- Time – First casualty onboard via powered retrieval device (at least one survivor must be recovered via the powered retrieval device)
- Time – Last casualty onboard

Note: Casualty means survivor or non-survivor.