



# Standby Vessel Guideline

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Summary of Changes		
Date Revised	Sections (if applicable)	Description of Change
October 28, 2024	All	Put into new guideline template; updated definitions, acronyms and bibliography and updated references to regulations.
October 28, 2024	4.2	Added information to vessel operators to conduct a risk assessment and implement measures as it relates to failure of vessel's propeller pitch control system.
October 28, 2024	4.2	Added information pertaining to dynamic positioning systems if used during emergency response or rescue operations.
October 28, 2024	5.2.1	Added information pertaining to personal protective equipment for the fast rescue craft crew.
October 28, 2024	5.2.3	Added reference to the Offshore Safety and Survival Centre's study titled, <i>Comparison Between Rigid Climbing Aids and Rope Scramble Nets in Effectiveness of Rescue Operations</i> .
October 28, 2024	5.3	Added reference to CAP 437 regarding helicopter winching areas on vessels.
October 28, 2024	7.2/7.3	Updated references from <i>COP Training and Qualifications Standard Practice</i> .
October 28, 2024	7.6.2	Added the requirement to carry out 25% of the fast rescue craft launching and recovery, to be completed at night (between civil dusk and civil dawn) and 25% to be completed in non-sheltered waters.
October 28, 2024	7.6.2	Added the option to use simulators as part of the vessel operator's overall competency assurance program for the fast rescue craft crew.
October 28, 2024	10.3	Deleted the requirement for the classification societies to notify the <i>Regulator</i> when a survey is to be conducted.
October 28, 2024	Appendix E	Added reference to the <i>East Coast Occupational Therapy Job Demands Analysis for Standby Vessel Water Rescue by Fast Rescue Craft Crew</i> .
October 28, 2024	Appendix F	Added Appendix F – Survey Instructions to Classification Societies.

## Foreword

The Canada-Nova Scotia Offshore Petroleum Board and Canada-Newfoundland and Labrador Offshore Petroleum Board (the *Regulators*) have issued this Guideline to assist operators to achieve compliance with the requirements for standby vessels in section 171 of the *Canada-Newfoundland and Labrador* and the *Canada-Nova Scotia Offshore Area Petroleum Operations Framework Regulations*. This Guideline applies to works or activities involving the use of a production, drilling or accommodations installation in the *Offshore Area*.

Guidelines are developed to provide assistance to those with statutory responsibilities (including operators, employers, employees, supervisors, providers of services, suppliers, etc.) under the *Accord Acts* and regulations. Guidelines provide an understanding of how legislative requirements can be met. In certain cases, the goals, objectives and requirements of the legislation are such that no guidance is necessary. In other instances, guidelines will identify a way in which regulatory compliance can be achieved.

The authority to issue Guidelines and Interpretation Notes with respect to legislation is specified by sections 151.1 and 205.067 of the *Canada-Newfoundland and Labrador Atlantic Accord Implementation Act, S.C. 1987, c.3 (C-NLAAIA)*, sections 147 and 201.64 of the *Canada-Newfoundland and Labrador Atlantic Accord Implementation Newfoundland and Labrador Act, RSNL 1990 c. C-2*, subsection 156(1) and section 210.068 of the *Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act, S.C. 1988, c.28 (CNSOPRAIA)* and section 148 and subsection 202BQ(1) of the *Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation (Nova Scotia) Act*. The *Accord Acts* also state that Guidelines and Interpretation Notes are not deemed to be statutory instruments.

For the purposes of this Guideline, these Acts are referred to collectively as the *Accord Acts*. Any references to the C-NLAAIA, the CNSOPRAIA or to the regulations in this Guideline are to the federal versions of the *Accord Acts* and the associated regulations.

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## 1.0 Acronyms and 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>C-NLAAIA<sup>1</sup></b>	<i>Canada-Newfoundland and Labrador Atlantic Accord Implementation Act</i>
<b>C-NLOPB</b>	Canada-Newfoundland and Labrador Offshore Petroleum Board
<b>CNSOPB</b>	Canada-Nova Scotia Offshore Petroleum Board
<b>CNSOPRAIA<sup>2</sup></b>	<i>Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act</i>
<b>DNV</b>	Det Norske Veritas
<b>DP</b>	Dynamic Positioning
<b>FRC</b>	Fast Rescue Boat or Craft
<b>H<sub>2</sub>S</b>	Hydrogen Sulphide
<b>IACS</b>	International Association of Classification Societies
<b>IMDG</b>	<i>International Maritime Dangerous Goods Code</i>
<b>IMO</b>	International Maritime Organization
<b>LR</b>	Lloyd's Register of Shipping
<b>LSA Code</b>	<i>International Maritime Organization Life-Saving Appliance (LSA) Code</i>
<b>NL</b>	Newfoundland and Labrador
<b>NS</b>	Nova Scotia
<b>OIM</b>	Offshore Installation Manager

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<sup>1</sup> References to the C-NLAAIA in this Guideline are to the federal version of the *Accord Act*

<sup>2</sup> References to the CNSOPRAIA in this Guideline are to the federal version of the *Accord Act*

<b>POB</b>	Persons On Board
<b>PPE</b>	Personal Protective Equipment
<b>SBV</b>	Standby Vessel
<b>STCW</b>	<i>Seafarers' Training, Certification and Watchkeeping Code</i>
<b>TQSP</b>	<i>Atlantic Canada Offshore Petroleum Code of Practice for the Training and Qualifications of Offshore Personnel</i>

## 2.0 Definitions

In this Guideline, the terms such as “operator”, “person”, “personal protective equipment” and “providers of services” referenced herein have the same meaning as in the *Accord Acts*.

In this Guideline, the terms such as “accommodations installation”, “drilling installation”, “installation”, “physical and environmental conditions”, “production installation” and “support craft” referenced herein have the same meaning as in the *Framework Regulations*.

For the purposes of this Guideline, the following terms have been capitalized and italicized when used throughout. The following definitions apply:

<b><i>Accord Acts</i></b>	means the <i>Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act</i> and <i>Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation (Nova Scotia) Act</i> , <i>Canada-Newfoundland Atlantic Accord Implementation Act</i> and the <i>Canada-Newfoundland and Labrador Atlantic Accord Implementation (Newfoundland and Labrador) Act</i>
<b><i>Authorized Representative</i></b>	The entity responsible for acting with respect to all matters relating to the vessel, as defined in the <i>Canada Shipping Act</i> .
<b><i>Framework Regulations</i></b>	means the <i>Canada-Newfoundland and Labrador Offshore Area Petroleum Operations Framework Regulations, SOR/2024-25</i> and the <i>Canada-Nova Scotia Offshore Area Petroleum Operations Framework Regulations, SOR/2024-26</i>
<b><i>Offshore Area</i></b>	means an offshore area as defined by the <i>Accord Acts</i>
<b><i>OHS Regulations</i></b>	means the <i>Canada-Newfoundland and Labrador Offshore Area Occupational Health and Safety Regulations, SOR/2021-247</i> or the <i>Canada-Nova Scotia Offshore Area Occupational Health and Safety Regulations, SOR/2021-248</i>

<b><i>Regulator</i></b>	means the Canada-Newfoundland and Labrador Offshore Petroleum Board or the Canada-Nova Scotia Offshore Petroleum Board, as the case may be
<b><i>Rescue Zone</i></b>	means the side of the vessel that is designated as the survivor retrieval area and marked “RESCUE ZONE” on the vessel’s hull

### 3.0 Purpose and Scope

The objective of this Guideline is to assist operators to achieve compliance with the requirements for standby vessels (SBVs) in section 171 of the *Framework Regulations*. In addition, SBVs must also comply with subsection 29(c) of the *OHS Regulations*. The onus is on the operator to comply with the *Accord Acts* and the associated regulations and to demonstrate to the *Regulator* that SBVs are capable of safely providing the necessary support functions in the foreseeable physical and environmental conditions prevailing in the area in which it operates. Any enquiries relevant to interpretation or application of the provisions of the this Guideline should be referred to the *Regulator*.

The primary goal of a SBV while on emergency response and rescue duty is to save and preserve life. In fulfilling this goal, the functions of a vessel on standby duty include:

- Assisting in the rescue of persons in the event of an emergency;
- Accommodating all POB the offshore installation in the event of a total evacuation;
- Providing shelter and treatment to rescued persons;
- Acting as a rescue radio station able to communicate with the installation, other vessels and installations in the vicinity, rescue craft and onshore station(s);
- Assisting in collision avoidance;
- Attending close to the installation, as necessary, and be fully prepared to rescue persons during any activity where there is a risk of a person at the workplace falling into the ocean, including but not limited to, the following operations:
  - Helicopter landing or take off
  - Personnel working over the side and near or in the water
  - Any other operation, as requested by the OIM.

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

If it is determined that any material changes may be required, consultation sessions may be arranged with interested parties (e.g., operators, *Authorized Representatives*, SBV providers of services, workforce representatives, classification societies) to discuss the proposed revisions.



The *Regulator* will maintain general oversight to verify the proper implementation of the this Guideline. The *Regulator* may exercise their authority to attend any of the surveys, tests, trials and exercises described within this guideline, as well as, conduct inspections of the SBVs and audits of the classification society, as deemed necessary.

#### 4.0 Design, Construction and Performance

**Goal: SBVs are designed, constructed and maintained to operate safely and supply the necessary support functions in the foreseeable physical and environmental conditions prevailing in the area in which it operates.**

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 IACS.

##### 4.1 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 onboard.**

The vessel should have onboard stability data required by the *Convention on Load Lines* and the associated regulations 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:

- departure from port to the assigned installation(s) (i.e., with full load of consumables, provisions and fuel);
- mid-period duty (i.e., with appropriate utilization of consumables, provisions and fuel);
- arrival back in port on completion of maximum standby duty (i.e., with appropriate utilization of consumables, provisions and fuel); and
- emergency response conditions as for the second and third cases above with the maximum allowable number of POB (i.e., includes POB for the installations that it serves and is based on the assumption that each person weighs 100 kg, inclusive of the immersion suit). This condition should also take into account the launch and recovery of the FRCs 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, considering the effect of both deck and bulk cargo on stability.

The stability data should also calculate the freeboard throughout the operational loading range noted above to demonstrate compliance with the climbing aids' height restrictions (refer to Section 5.2.3 of this Guideline).

## 4.2 Speed and Maneuverability

**Goal: The vessel has sufficient maneuverability 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 configuration of the bridge controls should be such that the vessel can be fully maneuvered by one person.

The vessel should be highly maneuverable. Examples of appropriate configurations include:

- twin screw and bow thruster;
- single screw with reversible gearbox or variable pitch control and a 360° azimuth thruster; or
- two 360° azimuth thrusters ('Z-Drives').

NOTE: Vessel operators should conduct a risk assessment and implement measures as it relates to the failure of the vessel's propeller pitch control system when operating in close proximity to an installation as it could result in a collision. Sufficient control procedures are to be implemented in this regard.

If the master of the vessel utilizes the DP system during an emergency response or rescue operation, the DP system should:

- meet the requirements of IMO DP Equipment Class 2 as outline in MSC.1/Circ. 1580, at a minimum; and
- meet the requirements of a recognized classification society's notation rules for DP systems equivalent to IMO Equipment class 2 or higher and hold an applicable notation.

### 4.3 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:

- the water adjacent to both sides of the *Rescue Zone*; and
- 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.

### 4.4 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:

- protect its crew from radiated heat;
- safely proceed closer to a burning installation; and
- 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 Firefighter I, II, or III; or
- LR Firefighting Ship 1, 2, or 3.

### 4.5 Lifeboat Towing Arrangement

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

#### 4.6 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:

- launching the FRC within 5 minutes;
- making the powered survivor retrieval device ready for deployment within 20 minutes;
- deploying climbing aids within 5 minutes; and
- retrieving 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 7.6.4 of this Guideline.

#### 4.7 Standby Vessel Readiness

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

All measures necessary should be taken to ensure that the vessel is ready to perform the specified SBV duties at all times. This includes:

- ensuring all rescue and recovery equipment is in good working order and readily available at all times;
- keeping the designated *Rescue Zone* areas, helicopter winching area and access thereto clear of obstructions, ice and snow;
- ensuring there are no flammable or explosive cargoes on deck (e.g., IMDG Code Class 1, 2.1, 3 or 4);
- being able to cease immediately any other operations upon being alerted of an emergency to respond to the situation;
- remaining within a distance which allows the vessel to proceed within 500 m of the installation within 20 minutes of being alerted of an emergency; and
- 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 4.6 of this Guideline.

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 installation within 20

minutes, the vessel master must record this fact and the reasons why in the vessel's logbook pursuant to subsection 171(3) of the *Framework Regulations*.

## 5.0 Emergency Response Equipment and Arrangements

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

The SBV 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 or from a survival craft, concurrently.

### 5.1 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:

- not less than 8 m in length, along the vessel's side;
- 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;
- adequately illuminated by means of dedicated lighting;
- provided with dedicated deck rescue areas, adequate working space, and access thereto clearly marked in contrasting colours;
- fitted with effective fall protection arrangements, to enable the vessel's crew to safely reach down over the vessel's side;
- 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
- 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 (refer to Section 5.2.2 and 5.2.3 of this Guideline).

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).

## 5.2 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.

### 5.2.1. FRCs and Launching Arrangements

The vessel should be equipped with one or more FRCs, as necessary to meet the emergency response performance described in Section 4.6 of this Guideline.

At a minimum, each required FRC and its launching arrangements must meet the requirements of paragraph 171(2)(c) of the *Framework Regulations*, as well as, the performance requirements of sections 5.1.4 and 6.17, respectively, of the LSA Code.

In addition, each FRC should be fitted with:

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

During rescue operations, FRC crew members will be more effective in carrying out their duties if their equipment protects them from injury and supports the need to respond quickly and efficiently. The FRC crew members are to be provided with proper PPE that complies with relevant local legislation and regulations and includes floatation, thermal protection, personal locator beacon, as well as, head, eye, hand and foot protection. An assessment of the risks associated with FRC operations is to be carried out when determining the appropriate PPE. The assessment is to include consideration of:

- cold water immersion and the risk of drowning;
- exposure to cold air temperatures, high winds, snow, rain and cold water spray;
- exposure to rough seas, including the effect of waves contacting the helmet (i.e., scoop effect);
- the FRCs high speeds;
- impact forces associated with FRC launching and recovery;
- dexterity and movement requirements;
- communication requirements; and

- vision requirements to conduct rescue activities and detect casualties in the water.

NOTE: 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.

### 5.2.2. Powered Survivor Retrieval Device

The powered survivor retrieval device (e.g., dacon scoop) should:

- be capable of retrieving unconscious persons from the water;
- have a safe working load of at least 600 kg; and
- be inspected and maintained as per Section 9 of this Guideline.

### 5.2.3. 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:

- extend at least 3.5 m in width along the vessel's side;
- 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 m;
- extend 1 m below the vessel's waterline on its lightest operating draft during the voyage;
- 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
- be arranged so as to allow the vessel's crew to reach down over the vessel's side and assist survivors onboard.

NOTE: Consideration should be given to the Offshore Safety and Survival Centre's study titled, *Comparison Between Rigid Climbing Aids and Rope Scramble Nets in Effectiveness of Rescue Operations*<sup>3</sup>.

### 5.2.4. Rescue Hooks

The vessel should be equipped with at least four rescue hooks having a minimum length of 5.5 m and be stored in an easily accessible location near the *Rescue Zone*.

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<sup>3</sup> <https://www.cnlopb.ca/wp-content/uploads/news/CBRCARSNERO.pdf>

### 5.2.5. Lifebuoys

The vessel should be equipped with at least two lifebuoys on each side of the *Rescue Zone* that meet the requirements of section 2.1 of the LSA Code.

## 5.3 Helicopter Winching Area

**Goal: The vessel is suitably outfitted with a clear zone 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:

- at least 5 m transversely by 3 m longitudinally on the vessel's port quarter;
- adequately illuminated such that the area is clearly visible to the helicopter at all times; and
- 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 A.

NOTE: While markings are not required for emergency winching purposes, it is good practice to apply the guidance outlined in CAP 437 regarding helicopter winching areas on vessels.

## 5.4 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, exploratory drilling operations)**

The vessel should be equipped with at least two 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 gas and H<sub>2</sub>S monitors should be provided for the protection of the FRC crew. H<sub>2</sub>S monitors should be capable of detecting concentrations of 5 ppm.

Additional detection equipment may be necessary where other hazardous gases may be present during an emergency (e.g., carbon monoxide).

The gas detection equipment should be maintained and calibrated in accordance with Section 9 of this Guideline.



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.

## 5.5 Communications Equipment

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

Appropriate means of achieving this goal include:

- a primary and a backup system to allow radio communications between the bridge conning station and installations, vessels, life-saving appliances and aircraft;
- 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;
- internal fixed or portable systems allowing communication between the bridge conning station and the *Rescue Zone*, helicopter winching area and treatment room; and
- the FRC and treatment room communication systems required by Sections 5.2.1 and 6.3 of this Guideline, respectively.

## 5.6 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 between those areas. This includes the vessel's decks and structures in the vicinity of the *Rescue Zone*, helicopter winching area and areas surrounding the rescue equipment (e.g., survivor retrieval device, FRC). Appropriate means may include mechanical or chemical means (e.g., spraying system, salt) or simply equipment for the crew to manually remove ice (e.g., scrapers, mallets).

## 5.7 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 2.5 m 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.

## **6.0 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 SBV 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 onboard.

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

### **6.1 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:

- sheltered from the elements and oncoming seas though it does not have to be fully enclosed; and
- equipped with a washing arrangement capable of providing warm water, approximately between 21°C and 25°C.

### **6.2 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).

### **6.3 Treatment Room**

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

- a treatment table, accessible from at least both sides and one end, fitted with a mounted adjustable lamp;
- an arrangement to secure two occupied stretchers in place horizontally that permits access for care and treatment of injured persons;
- the medical equipment and supplies described in Section 6.5 of this Guideline;
- a hand wash basin with hot and cold water supply;
- a moveable instrument table, capable of being secured onto the treatment table;
- a hands-free communication system, to allow communications with medical advisors offshore and onshore;

- a bulkhead-mounted clock;
- a lockable medical chest or a cabinet; and
- a waste bin.

NOTES:

- The treatment table itself cannot count as one of the stretcher securing arrangements noted above.
- The arrangement to secure two occupied stretchers in place should withstand the weight of an average offshore worker, ensure effective securing to prevent movement in adverse weather and allow a first aid provider to comfortably access the casualties on both stretchers.

## **6.4 Accommodations and Supplies**

### **6.4.1. Deck Area**

An adequately sheltered, heated, ventilated and lit deck area of at least 0.75 m<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:

- galleys and food storage areas;
- navigating bridge;
- engine room spaces, including the engine control room; and
- any areas covered by permanent furnishings, other than bunks or seating appliances.

NOTES:

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

### **6.4.2. 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.

#### **6.4.3. 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 15 L of potable water and five servings of soup or stew per person).

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

#### **6.4.4. 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.

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

The vessel should be equipped with:

- at least one approved AED; and
- the first aid equipment, supplies and medications described in Appendix B.

All medical equipment and supplies should be inspected, calibrated and certified in accordance with Section 9 of this Guideline.

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 health and safety problems that may be encountered in the oil and gas industry.

## 6.6 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.

## 7.0 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.

### 7.1 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:

- comply with the provisions of the "safe manning document" issued by the Flag State;
- achieve the performance criteria described in Section 4.6 of this Guideline; and
- in addition to the FRC crew(s) and the crew members required to operate the powered survivor retrieval device, allow for two dedicated first aid providers and one crew member in attendance at the *Rescue Zone* to assist survivors.

### 7.2 Training and Qualifications of Personnel

Notwithstanding Section 7.3 of this Guideline, 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 9 of the TQSP.

The designated FRC crew should meet the criteria for proficiency in fast rescue boats as described in the Part A, Chapter VI of the STCW Code.

### 7.3 H<sub>2</sub>S/Hazardous Gas Awareness

All crew should hold a valid recognized H<sub>2</sub>S training certificate which meets the requirements of section 3.4 of the TQSP. 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 H<sub>2</sub>S training.

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

### 7.4 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 onboard for responding to installation and helicopter emergencies.

This plan should describe each crew member's role and specific duties in the response mechanism to ensure the vessel can meet the emergency response performance outlined in Section 4.6 of this Guideline and the requirements of Section 7.1 of this Guideline, including:

- identification of the person in charge;
- bridge and engine room attendance, including lookouts, as appropriate;
- launching and crewing the FRCs;
- deploying and operating the survivor retrieval equipment;
- *Rescue Zone* attendance to receive, assist and process survivors; and
- identification of the senior and assistant first aid providers.

### 7.5 Crew Familiarization

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

#### 7.5.1. Familiarization with the Standby Vessel

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

- the layout of the vessel's survivor recovery equipment and accommodation facilities;
- the vessel's crew organization plan described in Section 7.4 of this Guideline, and in particular their duties within that plan; and
- deployment and operation of the vessel's survivor recovery equipment.

In addition, the master and senior officers of the SBV should be thoroughly familiarized with the standby operations plan in its entirety (refer to Section 8.2 of this Guideline).

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

#### **7.5.2. Familiarization with the Installation's Plan**

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

- installation general layout;
- subsea structure general layout;
- alarms and their meaning;
- muster points;
- gas dispersion modeling;
- gas release procedures specific to the SBV;
- location of life-saving appliances; and
- lifeboat specifications and in particular, the towing arrangements and procedure.

### **7.6 Emergency Response Drills and Trials**

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

#### **7.6.1. 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 SBV's drills should be carried out in conjunction with the installation's drills or exercises.

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

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

NOTES:

- 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.
- 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.

### **7.6.2. 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 (e.g., man overboard exercise, search for a missing person, towing a life raft or lifeboat). 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 two weeks, the vessel should conduct an FRC drill as soon as practicable after taking over standby duty.

FRC crews are to demonstrate their ability to effectively respond to emergency situations in all expected conditions, such as, hours of darkness and less than ideal sea states. It should be noted that many of the high-profile offshore disasters, including the Ocean Ranger, Piper Alpha and Deepwater Horizon, occurred at night. Therefore 25% of the launching and recovery of the FRC, should be completed at night (between civil dusk and civil dawn) and 25% should be completed in non-sheltered waters. It is to be demonstrated to the classification society during each SBV annual survey, that during the preceding 12 months the crew have conducted at least six FRC launches and recoveries at night and at least six in non-sheltered waters.

Vessel operators should develop and implement safe working procedures to enable the crew to perform FRC night time and non-sheltered water launch and recovery activities safely.



Simulators can form a useful and important part of an overall competency assurance program for FRC crew and can augment training in that it provides the ability for the crew to gain experience in varying scenarios such as high sea states. Where such simulators are to be used they should be similar to the FRC system used onboard the vessel. Simulators should not be seen as a complete replacement for practical and hands-on training and should not be used to replace the hands-on training required for annual 25% completed at night or the 25% completed in non-sheltered waters as described above.

### **7.6.3. Mass Rescue Operations Drills**

Mass rescue operations drills should be carried out at least once per crew rotation and should include:

- crew members assuming their assigned duties as per the crew organization plan (refer to Section 7.4 of this Guideline);
- launching and manoeuvring the FRCs (which may count towards fulfilling the requirements of Section 7.6.2 of this Guideline);
- deploying all survivor retrieval equipment;
- preparing the treatment room and all survivor accommodation spaces;
- practicing survivor search techniques;
- transferring a stretcher from the *Rescue Zone* to the treatment room and from the treatment room to the helicopter winching area;
- practicing the procedures and arrangements for survivor decontamination, reception and processing; and
- demonstration of the lifeboat towing arrangement.

### **7.6.4. 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 4.6 of this Guideline is met. The trials should be conducted twice in any five 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 E.

These trials should be witnessed by the classification society (refer to Section 10 of this Guideline), or other third party recognized by the *Regulator* (refer to note below), and may coincide with the vessel's annual survey (refer to Section 10.3 of this Guideline). These trials may also count towards fulfilling the number of drills required by Section 7.6.3 of this Guideline.

Note:

Organizations interested in becoming a third party recognized by the *Regulator* should submit an information package demonstrating their ability to effectively witness and document performance trials in accordance with this Guideline.

The following information should be submitted to the *Regulator*:

- personnel qualifications, training and experience in organizing, conducting, witnessing and documenting marine mass rescue operations drills and exercises, as well as familiarity with the provisions of the *Standby Vessel Guideline* and in particular Appendix E (performance trials procedures);
- equipment and arrangements necessary including designated marine areas for conducting the trials, mannequins of appropriate weight and size, workboats, stopwatches, radios, etc.
- procedures and documents for the safe and effective conduct and witnessing of the trials, as well as recording of the trial chronology and results as outlined in the *Standby Vessel Guideline* (e.g., standard operating procedures, risk assessments, job safety analysis, checklists, templates)

## 8.0 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 documented plans and procedures governing the conduct of all normal and emergency response operations associated with its role as a SBV. Furthermore, the vessel should carry onboard the required documents and publications, as well as, the records necessary to verify that the provisions of this Guideline are observed.

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

## 8.1 Documents and Publications

The vessel should carry onboard:

- a current copy of this Guideline;
- all the documents and records described in this Guideline, including procedures, manuals, plans, drawings, certificates, reports, etc.; and
- a current version of *IMO's International Aeronautical and Maritime Search and Rescue Manual*.

## 8.2 Standby Vessel Operations Plan

The vessel should carry onboard a “standby vessel operations plan”, which may consist of references to other documents and manuals, providing the following information:

- A general arrangement drawing showing the location of the following:
  - *Rescue Zone* and marking;
  - helicopter winching area;
  - treatment room;
  - survivor decontamination, reception and accommodation areas;
  - non-survivor storage area; and
  - rescue equipment;
- the crew organization for responding to installation emergencies, as described in Section 7.4 of this Guideline;
- the vessel's arrangements for obtaining medical support and advice from a physician at any time (24/7), as described in Section 6.5 of this Guideline;
- a description of all the rescue and recovery equipment and arrangements;
- a description of the means for de-icing the rescue equipment and areas, described in Section 5.6 of this Guideline;
- the procedures for normal field operations, outlined in Section 8.3 of this Guideline;
- the procedures for emergency response and rescue operations, outlined in Section 8.4 of this Guideline;
- crew familiarization procedures described in Section 7.5.1 of this Guideline;
- procedures outlining the frequency and content of the drills described in Section 7.6 of this Guideline;
- procedures detailing the rescue and recovery equipment inspections, maintenance and testing activities described in Section 9 of this Guideline; and
- pertinent installation emergency response plan information, specific to the installation(s) the vessel is assigned to at any given time, as described in Section 7.5.2 of this Guideline.

### **8.3 Procedures for Normal Field Operations**

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

- ensuring that the vessel is in all respects ready for rescue and recovery operations, prior to taking over standby duty;
- entering the installation's safety zone;
- 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 4.7 of this Guideline is compromised;
- assuming the helicopter and close standby positions;
- routine communications with the installation;
- monitoring vessel traffic in the area; and
- operations that the vessel is allowed to carry out while on standby duty.

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

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

- Responding to the following emergency situations:
  - person overboard;
  - installation evacuation;
  - helicopter ditching/crash;
  - gas release or fire;
  - errant vessel collision avoidance; and
  - any other potential emergency situation as detailed in the installation's contingency plan;
- methods and arrangements for immediately discontinuing any permitted simultaneous operations to respond to an emergency situation on the installation;
- deployment of all survivor rescue equipment, inclusive of the FRCs, powered survivor retrieval device and climbing aids;
- receiving, registering and processing survivors, in accordance with an established triage system, including identification of survivors as to their triage category (refer to Appendix C for an example of a broadly accepted triage system);
- reporting non-survivors to the authorities and keeping relevant records;
- handling and care of non-survivors; and
- connecting towlines to, and towing, lifeboats and life rafts, as well as retrieving personnel from within a lifeboat or life raft.

## 9.0 Inspection, Testing and Maintenance

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

In fulfilling this goal all rescue, recovery and medical equipment and the equipment and systems on the vessel itself which support the operation of this equipment 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 (e.g., flag state), classification society rules, manufacturer's recommendations and good seamanship practices.

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

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

- Recognizing the crucial importance of the FRCs and its launching arrangement, additional measures should be implemented to enhance its reliability, including:
  - a stringent program of periodic inspections, maintenance, testing and servicing, in accordance with the manufacturer's specifications; and
  - a spare parts program, whereby one set of critical spare parts for each identical FRC, as prescribed by the manufacturer, is carried onboard and inventoried, covering all critical components of the craft and its launching device (e.g., hydraulics, winch, engine, controls);
- The powered survivor retrieval device and climbing aids referred to in Section 5.2 of this Guideline should be:
  - inspected visually for integrity and function tested, at least on a monthly basis; and
  - maintained and serviced in accordance with the manufacturer's recommendations;
- The gas detection equipment referred to in Section 5.4 of this Guideline should be:
  - confirmed functional at least monthly; and
  - calibrated at intervals specified by the equipment's manufacturer, but in any event not exceeding 12 months, using established methods specified by the manufacturer;
- Biomedical equipment (e.g., AEDs, suction units, blood pressure cuffs, oxygen flow meters) should be inspected and calibrated on an annual basis by a qualified biomedical equipment technician or technologist;
- 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 6.5 of this Guideline 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 7.6 of this Guideline.

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

## **10.0 Surveys and Certification**

### **10.1 Recognized Classification Societies**

The classification societies that are recognized to survey vessels for the purpose of verifying compliance with this Guideline and issuing AC-SBV DOCs are ABS, BV, DNV and LR.

### **10.2 Certification**

An AC-SBV DOC, in the format shown in Appendix D, should be issued to a vessel that has been surveyed by a recognized classification society and found in compliance with this Guideline, in accordance with Section 10.3 of this Guideline. The AC-SBV DOC should be valid for five years, subject to annual endorsements, any annotations added by the classification society, or any other additional conditions that may be imposed by the *Regulator*.

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 *Regulator* 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 *Regulators'* decision. However, depending on the nature of the issue at hand, the *Regulator* may immediately upon receipt of the interpretation request direct the classification society to not issue an AC-SBV DOC to the subject vessel.

### **10.3 Survey**

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 three 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 three months prior to the expiry of the AC-SBV DOC.

Any significant changes to the vessel or emergency response equipment or 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:

- 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 this Guideline; and
- verification that the performance trials described in Section 7.6.4 of this Guideline have been completed successfully.

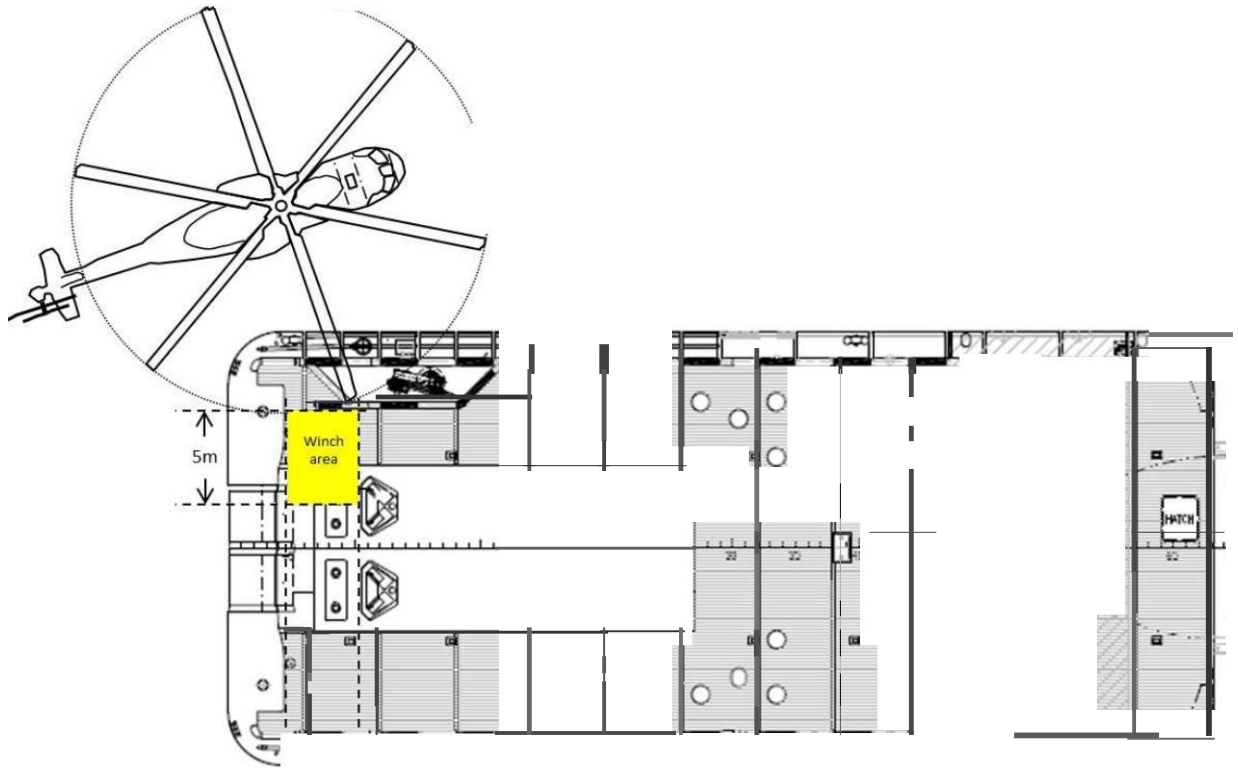
The *Survey Instructions to Classification Society Surveyors* are provided in Appendix F. They have been developed to assist surveyors with the effective and efficient conduct of the AC-SBV DOC surveys, this document may also be used by operators and shipboard personnel as an instrument to verify compliance with the *Standby Vessel Guideline*.

## 11.0 Bibliography

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3. *IMO International Aeronautical and Maritime Search and Rescue Manual, Volume III, Mobile Facilities, 2019*
4. *IMO International Convention on Load lines, with amendments to February 2018*
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6. *IMO International Maritime Dangerous Goods (IMDG) Code, January 2021*
7. *IMO Resolution MSC.81(70), Revised Recommendation on Testing of Life-Saving Appliances, December 1998*
8. *IMO Seafarers' Training, Certification and Watchkeeping Code, 2010*
9. *Offshore Safety and Survival Centre, Comparison Between Rigid Climbing Aids and Rope Scramble Nets in Effectiveness of Rescue Operations, October 2021*



## 12.0 Appendix A – Helicopter Winching Area

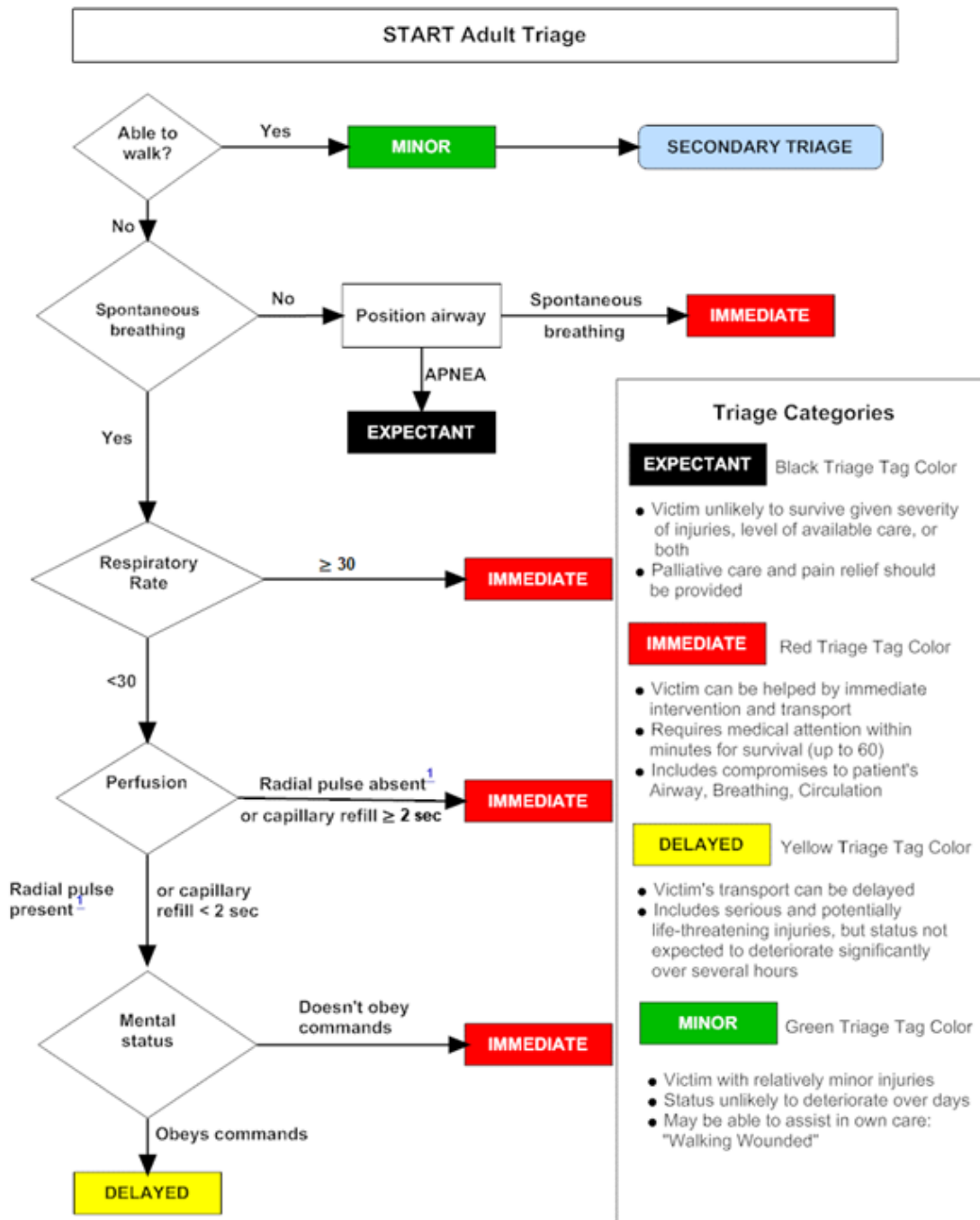


## Appendix B – First Aid Equipment, Supplies and Medications

13.0 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
Traction Splint – Speedsplint® or equivalent <sup>7</sup>	2	
Skin	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) <sup>®</sup> 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	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 Multitorator 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>Quantity</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 <sup>®</sup> )		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
<b>Supplies and Medications for use by a licensed health care professional (Paramedic, Registered Nurse, or Physician)</b>		
<b>Item Description</b>		<b>Quantity</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 the first aid kit and medical equipment requirements of <i>Transport Canada’s Maritime Occupational Health and Safety Regulations SOR 2010/120</i> should 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
<b>** Denotes medication that can be administered with physician telephonic support</b>		

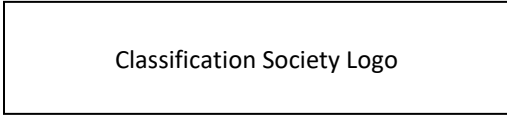
### 14.0 Appendix C – Example of Triage System (Start Adult Triage)



### START Adult Triage Algorithm: Text Version

- Page graphics illustrate two concepts:
  - Four 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 four 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; and
    - may be able to assist in own care: also known as "walking wounded".
  - Delayed: Yellow Triage Tag Color
    - victim's transport can be delayed; and
    - 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); and
    - 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; and
    - palliative care and pain relief should be provided.

**15.0 Appendix D – Atlantic Canada Standby Vessel Document of Compliance**



**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 *Standby Vessel Guideline*.
2. The vessel's performance, equipment, survivor accommodations and facilities, and crew competency, as well as its procedures and arrangements, comply with the *Standby Vessel Guideline*.
3. To meet the performance requirements for standby operations, outlined in the *Standby Vessel Guideline*, 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 *Standby Vessel Guideline*.

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	

<b>Endorsement for annual surveys</b>			
THIS IS TO VERIFY that at an annual survey the vessel was found in compliance with the provisions of the <i>Standby Vessel Guideline</i> .			
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			

## 16.0 Appendix E – Performance Trial

### 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 paragraph 71(2)(b) of the *Framework 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 4.6 of this Guideline.

For the purposes of conducting the trials the worst case scenario would be with the SBV 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) or under another approval issued by the *Regulator* (e.g., Development Plan, Regulatory Query), as applicable.

#### NOTES:

- 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.
- Any observers or additional crew onboard at the time of the trial, including third party representatives witnessing the trial on behalf of the *Regulator*, 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 SBV 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, gym). Subsequently, the crew assigned those responsibilities on the organization plan should perform the following tasks within the time frames specified in Section 4.6 of this Guideline:

- launch the FRCs within five minutes;



- make the powered survivor retrieval device ready for deployment within 20 minutes;
- deploy the climbing aids within 5 minutes; and
- complete retrieval of all mannequins using the FRCs 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, the number of personnel conducting these trials should be in accordance with Section 7.1 of this 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. SBV providers of services are to review and implement the recommendations outlined in the *East Coast Occupational Therapy Job Demands Analysis for Standby Vessel Water Rescue by Fast Rescue Craft Crew*<sup>4</sup> to minimize risk of injury to vessel crew when lifting/handling mannequins. This analysis outlines the best ergonomic practices to employ for this activity and an optimal mannequin weight range to use during SBV trials and person-overboard drills. Mannequin weights should target at the middle of the weight range to protect the trial against loss of fidelity below the low end and to protect the crew against injury above the high end.

While the mannequins are being brought on board, the assigned crew members will be simulating the processing of survivors (and non-survivors) onboard the SBV 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 should also be established and tested between the bridge, *Rescue Zone*, FRCs, helicopter winching area and treatment room as well as those between the treatment room medic and the medical authorities onshore. 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 *Regulators*, should include commentary in the trial report on the successful completion (or otherwise) of onboard processing, treatment and 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 SBV permit, the trials should not be conducted in benign waters. The weather conditions during the trials should simulate routine operating conditions and should 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

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<sup>4</sup> <https://www.cnlopb.ca/wp-content/uploads/news/OTJDASVWVFRCC.pdf>

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 SBV includes:

- a complete description of the vessel, including vessel owner and names of crew participating in the trial should be recorded and documented in the trial report, and trial reports should be maintained on the SBV;
- 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 the SBV and any other coordinating vessels, details and weights of mannequins, etc.;
- commentary on the successful completion of (or otherwise) onboard processing, treatment and 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 should 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 SBV
- Time – Arrival at scene of incident
- Time – Powered retrieval device deployed
- Time – First casualty onboard via powered retrieval device (at least one survivor should be recovered via the powered retrieval device)
- Time – Last casualty onboard

NOTE: Casualty means survivor or non-survivor.

## **17.0 Appendix F – Survey Instructions to Classification Societies**

The objective of this instruction is to provide guidance to recognized classification societies for the conduct of the necessary surveys for the purpose of issuing an AC-SBV DOC.

As detailed in this Guideline, a vessel that has been surveyed by a recognized classification society and found in compliance will be issued an AC-SBV DOC. Nonconformities should be recorded on the AC-SBV DOC or other document maintained by the classification society. In cases of major noncompliance, it is to be reported immediately to the *Regulator*.

While this instruction has been developed to assist surveyors with the effective and efficient conduct of AC-SBV DOC surveys, this document may also be used by operators and shipboard personnel as an instrument to verify compliance with the *Standby Vessel Guideline*.

PROVISION	INTERPRETATION	REMARKS
<b>4.0. Design, Construction and Performance</b>	<p>Examine the vessel's SOLAS International Safety Construction and Safety Equipment Certificates to verify they are valid.</p> <p>Verify that the vessel carries a valid Certificate of Class issued by an IACS member.</p>	
<b>4.1 Stability</b>	<p>The vessel should have onboard stability data required by the <i>Load Line Regulations SOR/2007-99</i> and carry a valid Load Line Certificate appropriate to the operating areas and times of year.</p>	
	<p>Verify that the vessel carries a valid International Load Line Certificate.</p>	
	<p>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 the classification society. Sight the stability calculations and verify that they have been carried out in accordance with the criteria described in the <i>Standby Vessel Guideline</i> and that the calculations have been assessed by a recognized classification society (i.e., ABS, BV, DNV.GL, or LR).</p>	
<b>4.2 Speed and Maneuverability</b>	<p>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 four knots. Check the vessel's specifications or most recent speed sea trials.</p>	<p>If the surveyor is in doubt that the vessel can achieve the speed performance criteria speed trials should be carried out and witnessed by the surveyor.</p>

PROVISION	INTERPRETATION	REMARKS
	<p>The vessel should be highly maneuverable. Check the vessel's specifications to confirm that it is fitted with one of the acceptable means of conformance described in Section 4.2 of this Guideline.</p> <p>In addition, verify that vessel operators have conducted a risk assessment and implemented measures and procedures as it relates to the failure of the vessel's propeller pitch control system when operating in close proximity to an installation.</p>	<p>If the vessel is not fitted with any of the prescribed propulsion configurations assess its maneuverability and sea-keeping ability, with due consideration of the North Atlantic physical and environmental conditions. If a qualitative assessment is not possible sea trials should be carried out.</p>
	<p>The configuration of the bridge controls should be such that the vessel can be fully maneuvered by one person. Carry out a site survey, or request a bridge watchkeeper to demonstrate, that all propulsion systems can be controlled by a single person on the conning station(s).</p>	
<p><b>4.3 The Navigating Bridge</b></p>	<p>The navigating bridge should be designed so that there is an unobstructed line-of-sight view of the water adjacent to both sides of the <i>Rescue Zone</i> and the helicopter winching area.</p>	<p>Note: If the presence of cargo or other items could obstruct visibility, an annotation should be added to the vessel's AC-SBV DOC restricting cargo as appropriate to ensure visibility requirements are met.</p>
	<p>Carry out a site survey on the bridge to verify that one can have direct sight of the water adjacent to the <i>Rescue Zone</i> on <i>both sides</i> and the helicopter winching area.</p>	
	<p>Carry out a site survey to confirm that one can have 360° visibility around the vessel from the bridge. If the vessel uses cameras to achieve this goal, assess the quality of the camera display.</p>	<p>If the vessel uses extra lookouts to achieve this goal, ensure that provision for such lookouts is made in the vessel's standby muster list required under Section 7.4 of this Guideline.</p>
	<p>The vessel's searchlight(s) should be capable of providing 360° coverage. Review the specifications of the searchlights to confirm they meet class rules for candlepower. Request the vessel's crew to operate the searchlight(s) to demonstrate they can provide 360° coverage around the vessel.</p>	

PROVISION	INTERPRETATION	REMARKS
<b>4.4 Water Spray/Water Curtain System.</b>	If the vessel is classed as a firefighting vessel, confirm the validity of its notation in the certificate of class. If not, review the vessel's water curtain/spray system arrangements and verify that it meets the intent of the guideline. If in doubt, the vessel should be requested to demonstrate its water spray/curtain system.	
<b>4.5 Lifeboat Towing Arrangement</b>	Request the crew to show the lifeboat towing arrangement. The arrangement should be suitable for the installation(s) the vessel services at the time of the survey.	If the vessel is not servicing any installations at the time of the survey an annotation should be made to its DOC that the compatibility of its towing arrangement with the lifeboats of the installation will have to be verified prior to assuming standby duties on any installation. Note that the vessel should also have information and procedures specific to the lifeboats carried on the installation(s) (to be serviced (see Section 7.4 of this Guideline).
<b>5.1 Rescue Zone</b>	Measure the <i>Rescue Zone</i> along the vessel's side on both sides to verify it is at least 8 m long.	
	Review vessel's drawings to verify that the <i>Rescue Zone</i> is at a safe distance from propellers, thrusters and discharge points.	
	Visually verify that the words "Rescue Zone" are prominently marked on each side of the <i>Rescue Zone</i> .	
	Visually verify that each side of the <i>Rescue Zone</i> is fitted either with a powered survivor retrieval device or climbing aids.	The retrieval device and climbing aids should meet the criteria described in Section 5.2 of this Guideline.
	Survey the <i>Rescue Zone</i> area to verify it can be illuminated and function test the lighting.	The vessel's search lights may <i>not</i> be utilized towards fulfillment of this requirement.

PROVISION	INTERPRETATION	REMARKS
	<p>Survey the <i>Rescue Zone</i> areas to confirm that adequate working space is provided for the rescue crew. Verify that the designated rescue areas and access thereto are painted in contrasting colors.</p> <p>Request crew to demonstrate the fall protection arrangements for the rescue crews.</p>	<p>The arrangement should be such that the rescue crew can safely reach down over the vessel's side to assist persons climb up the climbing aids, while using the fall protection system.</p>
<b>5.2.1 FRC and launching arrangements</b>	<p>Check the performance trials report (see Section 7.6.4 of this Guideline) to verify that the vessel is fitted with the required number of FRCs.</p>	
	<p>Examine the manufacturer's specifications to verify that the FRCs and their launching arrangements meet the SOLAS LSA Code requirements.</p>	
	<p>Determine that the stated capacity of the FRC and the safe working load of its launching arrangement are sufficient assuming each person weighs 100 kg.</p>	<p>Operators may be able to show that the FRCs and launching arrangements have been (or can be) tested to the stated POB capacity at 100 kg per person; or they may downgrade the capacity of the FRCs to the appropriate number of persons (e.g. from 10 to 9) to fulfill this requirement.</p>
	<p>Inspect the FRC(s) and its launching arrangement visually for condition.</p>	
	<p>Check that the FRC(s) is fitted with a primary and backup waterproof communications system.</p>	
	<p>Verify that proper personal protective equipment is available for the FRC crew(s) and that it complies with local legislation. In addition, verify that vessel operators have assessed the risks associated with FRC operations and taken the considerations outlined in this section into account.</p>	
	<p>Check that the FRC(s) are fitted with a rescue frame.</p>	<p>Note that the rescue frame is not required by the SOLAS LSA Code.</p>



PROVISION	INTERPRETATION	REMARKS
<b>5.2.2 Powered Survivor Retrieval Device</b>	<p>Verify visually that the vessel is fitted with at least one powered survivor retrieval device, on one side of the <i>Rescue Zone</i>.</p> <p>If deemed necessary, request the crew to demonstrate deployment of the device.</p>	<p>The most common device used is the “Dacon Scoop”; if the vessel is fitted with a different type of device, the surveyor should satisfy him(her)self that the device is capable of lifting <i>unconscious</i> persons from the water and has a SWL of at least 600 kg. If necessary, the crew should be requested to demonstrate this capability by retrieving a mannequin.</p>
<b>5.2.3 Climbing Aids</b>	<p>Verify visually that climbing aids are fitted on one side of the <i>Rescue Zone</i>.</p> <p>Request the crew to demonstrate deployment of the climbing aids.</p> <p>Measure the length of the climbing aid to ensure they are at least 3.5 m long.</p> <p>Measure the distance between the water line and the highest point on the climbing aids to ensure it does not exceed 4 m.</p> <p>Inspect the deployed climbing aids visually to ensure they extend 1 m below the waterline.</p> <p>Verify by measurement that the deployed climbing aids hang clear of the vessel’s side by at least 10 cm in a manner that offers a good grip and solid footing to survivors for climbing up.</p>	<p>Note that if the vessel is fitted with powered survivor retrieval devices on both sides of the <i>Rescue Zone</i>, climbing aids are not required.</p> <p>In measuring the height of the climbing aids first establish the vessel’s loading condition at the time of the survey. This condition must be met with the vessel at its <i>lightest operating</i> draft. If the vessel is not at its lightest operating draft at the time of the survey, this may be verified by calculating its freeboard at the lightest operating draft and adding the portion of the climbing aids that extends over the vessel’s deck.</p>

PROVISION	INTERPRETATION	REMARKS
<b>5.2.4 Rescue Hooks</b>	Verify visually that the vessel is equipped with 4 rescue hooks which are at least 5.5 m in length and stored in the vicinity of the <i>Rescue Zone</i> .	Note that this Guideline calls for rescue hooks; boat hooks are not acceptable.
<b>5.2.5 Lifebuoys</b>	Verify visually that the vessel is equipped with 2 lifebuoys on each side of the <i>Rescue Zone</i> that meet the requirements of section 2.1 of the LSA Code.	These are normally over and above the lifebuoys required for the vessel's own lifesaving equipment. However lifebuoys that may be present in the vicinity of the <i>Rescue Zone</i> as part of the vessel's lifesaving equipment may count towards this requirement.
<b>5.3 Helicopter Winching Area</b>	Review sample cargo stowage plans with the Chief Officer to verify that a helicopter winching area is maintained at all times while on standby duty.	Note that the helicopter winching area must be 5 m transversely by 3 m longitudinally on the vessel's port quarter; it does not have to be marked.
	At the same time the surveyor should also verify that the requirements for a 2.5 m stretcher accessibility corridor to/from the <i>Rescue Zone</i> , treatment room and helicopter winching area are observed (see Section 5.7 of this Guideline).	
<b>5.4 Gas Detection Equipment</b>	Establish whether the vessel is fitted with two fixed H <sub>2</sub> S monitors and fixed or portable monitors for the FRC crew.	If the vessel is not fitted with gas detection equipment, make an annotation to its AC-SBV DOC stating this fact. If at the time of the survey the surveyor is aware that the vessel is (or will be) servicing an installation where H <sub>2</sub> S or other hazardous gases may be an actual or potential hazard (e.g. exploratory drilling or sour production field) the matter should be brought to the attention of the <i>Regulator</i> immediately.
	Through examination of drawings or inspection determine whether the fixed monitors are installed strategically in proximity to the air intakes of the vessel's accommodations.	

PROVISION	INTERPRETATION	REMARKS
	Review the manufacturer's specifications for all monitors to determine whether they can detect H <sub>2</sub> S concentrations of 5 ppm.	
	Test the fixed H <sub>2</sub> S monitors' audible alarms on the bridge.	
	Verify other detectors and/or equipment is provided where other hazardous gases may be present during an emergency (e.g., carbon monoxide)	
	Verify that fixed or portable gas and H <sub>2</sub> S monitors are provided for the protection of the FRC crew.	
<b>5.5 Communications Equipment</b>	Verify that the vessel's Safety Radio Certificate is valid.	Additional communications systems are required for the treatment room, which can be covered under the treatment room survey (see section 6.3 of this Guideline).
	Verify there is a primary and backup system to allow radio communications between bridge and installations, vessels, life-saving appliances and aircraft.	
	Confirm that the vessel can home onto the 121.5 MHz aeronautical frequency.	
	Verify that sufficient fixed and/or portable communications systems are in place to allow communications between the bridge and the FRC, <i>Rescue Zone</i> , treatment room and helicopter winching area.	
	Test fixed communications systems.	
<b>5.6 De-icing equipment</b>	Interview crew to establish the types of de-icing equipment the vessel is fitted with (e.g. manual, mechanical, or chemical means).	
	Qualitatively assess the adequacy of the equipment in de-icing all designated rescue areas and access thereto.	
<b>5.7 Stretcher accessibility</b>	Request the crew to demonstrate transferring an occupied stretcher from the <i>Rescue Zone</i> to the treatment room and then to the helicopter winching area.	By observation establish that there is no excessive inclining of the stretcher during the transfer and that the stretcher does not have to be inclined by more than 45° at any point.

PROVISION	INTERPRETATION	REMARKS
<b>6.1 Decontamination area</b>	Survey the designated decontamination area and qualitatively assess whether its size and location are fit for purpose (i.e., it is reasonably sheltered and can accommodate say 3-4 persons at the time).	Note that the area does not have to be fully enclosed; it should however be adequately sheltered from oncoming seas, sea spray and rain/snow.
	Test the washing arrangement and ensure it can provide warm water.	If in doubt as to the warmth of the water take actual sample temperature readings to ensure it is approximately between 21°C and 25°C.
<b>6.2 Survivor Reception Area</b>	Survey the designated reception area and qualitatively assess whether its size is fit for purpose.	In assessing the area the surveyor should consider that this area is only for the purpose of handing out supplies to the survivors and processing them into the accommodations.
<b>6.3 Treatment Room</b>	Review drawings or take actual measurements to establish that the room is at least 15 m <sup>2</sup> in size.	
	Generally survey the treatment room to verify that it is kept in a sanitary and tidy condition with all equipment and supplies properly secured, stored and easily accessible.	Using the treatment room as a temporary storage area is not acceptable.
	Verify that the treatment table can be accessed from both sides and one end.	
	Request crew to demonstrate the arrangement for holding two occupied stretchers in place.	The treatment table cannot count as one of the stretcher holders. Verify that a safe and proper arrangement is in place for securing two occupied stretchers (e.g., brackets or securing straps) – using items such as bungee cords is not acceptable.
	Function test the wash basin to verify it can supply hot and cold water.	
	Request the crew to demonstrate that the instrument table is moveable and can be secured onto the treatment table.	

PROVISION	INTERPRETATION	REMARKS
	Function-test the hands-free communications system by placing a test call to the medical services provider.	If at the time of the survey the vessel does not have a charter it is possible that it may not have a designated medical services provider contracted. In such a case simply make a test call to a land line. Also make a relevant annotation to the vessel's AC-SBV DOC.
	Visually verify that the treatment room is fitted with a bulkhead-mounted functional clock, a lockable medical chest or cabinet and a waste bin.	
<b>6.4.1 Deck Area.</b>	Review vessel drawings showing that the required 0.75 m <sup>2</sup> of deck area is available for every survivor the vessel intends to be rated for.	It is expected that these calculations will have taken place, and drawing produced, in advance of the survey. The surveyor should carry out a quality control check to verify that the calculations for the deck areas are consistent with the criteria described in this Guideline.
	An adequately sheltered, heated, ventilated and lit deck area of at least 0.75 m <sup>2</sup> should be available for each person that the vessel is rated for as per the AC-SBV DOC.	
<b>6.4.2 Bunks and Washrooms</b>	Review vessel drawings or carry out a site survey to confirm that the bunks available are adequate to cover 10% the number of survivors, plus an additional three bunks reserved for the use of the crew. Using the same method, verify that the number of washrooms is sufficient to cover the 1/25 ratio.	If the vessel is using deck area(s) in lieu of a bunk(s) verify that this is reflected in the drawings and that suitable mattresses are available.
<b>6.4.3 Water and Food</b>	Verify visually that adequate quantities of food and water are available onboard and reserved for the use of survivors based on the number of survivors outlined on the AC-SBV DOC. (e.g., at least fifteen 15 L of potable water and five servings of soup or stew per person)	The surveyor is not expected to perform a physical count of food and water quantities; the vessel's crew should be able to demonstrate that the supplies are available and there is a practical way for verifying the quantities (e.g., boxes marked with the number of soup packs and water bottles contained inside).

PROVISION	INTERPRETATION	REMARKS
<b>6.4.4 Sundries</b>	Verify that the required quantities of woolen blankets, disposable coveralls, woolen socks and bath towels are available for the number of survivors the vessel intends to be rated for. Based on the number of survivors outlined on the AC-SBV DOC. (e.g., one woolen blanket, one pair of disposable coveralls, one pair of woolen socks and one bath towel per person)	Same as above, the surveyor is not expected to perform a physical count of the supplies; the vessel's crew should be able to demonstrate that the supplies are available and there is a practical way for verifying the quantities (e.g., boxes marked with the number of blankets, coveralls, socks and bath towels contained inside).
	Verify the vessel is equipped with the number of sleeping bags equal to 10% the number of persons it is rated for as per the AC-SBV DOC.	
	Examine a sample of each item carried onboard to assess that they are fit for purpose (i.e., confirm fabric of blankets and socks and size of towels).	
<b>6.5 Medical Equipment, Supplies and Support</b>	Verify that the vessel's medical supplies and equipment have been surveyed by a qualified medical services provider within the past 12 months and a relevant certificate is carried onboard.	Refer to section 9 of the <i>AC-SBV guideline</i> . The vessel should be carrying onboard certificates showing that the medical equipment and supplies have been inspected by a competent person.
	Verify that biomedical equipment (e.g., AEDs, suction units, blood pressure cuffs, oxygen flow meters, etc.) have been inspected and calibrated within the last 12 months by a qualified Biomedical Equipment Technician or Technologist.	
	Verify that the vessel has arrangements in place for obtaining medical advice and support 24/7 and relevant contact details are available.	If at the time of the survey the vessel has no contract it is possible that this requirement may not be fulfilled, since normally these arrangements are made through the operator. If that is the case an annotation should be made to the AC-SBV DOC.

PROVISION	INTERPRETATION	REMARKS
<b>6.6 Non-survivors</b>	Review the standby arrangements drawing to verify that the non-survivor area(s) is identified.	
	<p>Survey the area(s) to qualitatively assess that it can accommodate the required number of non-survivors (10% the number of survivors the vessel is rated for, or the full helicopter complement, whichever higher) without having to stack them on top of each other.</p> <p>Verify that the area(s) is ventilated and illuminated and can be kept cool.</p>	Generally, the Sikorsky 92 maximum POB of 21 persons is considered the standard in the industry, however in certain cases this number may differ if different helicopters are used, or if the S92 is not used to its full passenger capacity (e.g., when the spare fuel tank has to be used for the flight).
<b>7.1 Vessel's Complement</b>	Verify that the vessel complement, at a minimum, complies with the provisions of the vessel's Safe Manning Document, able to achieve the performance criteria described in Section 4.6 of this Guideline, in addition to the FRC crews and the crew to operate the powered survivor retrieval device, allow for two dedicated to first aid and one crew member in attendance at the <i>Rescue Zone</i> to assist survivors.	Verify the number of crew that participated in the performance trial (check performance trial report).
<b>7.2 Training and Qualifications of Personnel</b>	Randomly examine the certificates of competence and medical fitness of 25% crew to verify they are in good order.	If the vessel has an electronic tracking system for crew certification, it is acceptable to verify all certification items through that system, however the surveyor is expected to cross reference some of the data in the system to the actual certificates randomly. If reasonable grounds are established that the tracking database is not accurate then all verifications should involve examining the actual certificates.
	Examine the FRC proficiency certificates of the designated FRC crew(s) to verify they are in good order.	It should be the designated FRC crew(s), as identified in the standby muster list (see section 7.4 of this Guideline), that have the training.

PROVISION	INTERPRETATION	REMARKS
	Examine the Advanced Marine First Aid certificates of the designated first aid providers to verify they are in good order.	It should be the designated first aid providers, as identified in the standby vessel muster list (see section 7.4 of this Guideline) that have the training.
	Verify through certificate examination that at least 75% of the crew hold basic first aid training.	
	Examine all deck ratings' Maritime Transportation of Dangerous Goods certificates to verify they are in good order.	
	Examine all crew's WHMIS certificates to verify they are in good order.	
<b>7.3 Hydrogen Sulphide/Hazardous Gas Awareness.</b>	Examine the H <sub>2</sub> S training certificates of all crewmembers.	If the operator has provided sufficient evidence that the vessel will only operate in fields where H <sub>2</sub> S is not a hazard, formal crew training is not required; however the crew should still have some H <sub>2</sub> S awareness training.
		If it is known at the time of the survey that the vessel is or will be operating in fields where other hazardous gases may be present, it must be further verified that the crew have relevant awareness training.



PROVISION	INTERPRETATION	REMARKS
<b>7.4 Crew Organization for Emergencies.</b>	Check that the vessel has a plan in place such as a standby vessel muster list or station bill and that it describes each crewmember's duties in responding to an installation evacuation incident. The plan should at least identify the person in charge, bridge and engine room attendees including lookouts, FRC crew, davit operator, Dacon Scoop operators, senior and assistant first aid providers and <i>Rescue Zone</i> attendee.	In assessing the crew organization plan the surveyor should also ensure that the vessel has sufficient crew onboard to fulfill all the necessary duties. Note that the plan should be such that in addition to the FRC crew and the crew required to operate the Dacon Scoop there should be two first aid providers and a <i>Rescue Zone</i> attendee, dedicated to that role (see Section 7.1 of this Guideline). The performance trials report should also be cross-referenced to check how many FRC crews are required and if there are any other special requirements for additional crew (e.g., bridge lookouts in order to satisfy the visibility criteria).
<b>7.5.1 Familiarization with the Standby Vessel.</b>	Verify that a standby vessel familiarization procedure is in place and that it covers the layout of the vessel's standby facilities and equipment, the crew organization and the operating procedures for survivor recovery equipment.	
	Verify that a more detailed familiarization procedure is in place for the Master and senior officers to be familiarized with the entire Standby Operations Plan (refer to section 8.2 of this Guideline).	Senior officers are generally considered to be the Master, Chief Officer, Second Officer, Chief Engineer and Second Engineer. However if more officers are carried onboard, it would be preferable for all deck and engine room officers to have completed the detailed familiarization. The full Standby Operations Plan consists of the 11 elements described in section 8.2 of this Guideline.

PROVISION	INTERPRETATION	REMARKS
	Check records to verify that all crew have completed this familiarization.	The most common type of record for this purpose would be a familiarization checklist, outlining the specific items and signed by the candidate and the Master. However, any type of record that demonstrates that a proper familiarization has been provided is acceptable.
<b>7.5.2 Familiarization with the Installation's Plan.</b>	Verify through interviews or record examination that the crew have been provided with training in the 8 elements of the installation's emergency response plan detailed in this section.	Note that this requirement should be fulfilled for all installations the vessel is, or will, be servicing. If at the time of the survey the vessel does not have a contract, a relevant annotation should be made on the AC-SBV DOC. This Guideline does not state that records of this training be kept. Therefore it is acceptable to confirm this item by interviewing a random sample of the crew. However if records are kept they should be examined. The surveyor should also verify that the contents of the training address all 8 elements of the installation's plan.
<b>7.6 Emergency Drills and Response Trials</b>	Examine drill reports to verify that FRC drills are conducted twice per crew rotation and mass rescue operations drills once per crew rotation.	The guideline recognizes that multifunction vessels may at times not spend much time on standby duty and therefore FRC and installation evacuation drills may not be carried out as consistently. While it is still expected that in the course of a year the required number of drills should have been completed, the surveyor should bear in mind that this may sometimes not be possible.
	Verify that, in the last 12 months, at least six FRC launching drills have been carried out at nighttime.	

PROVISION	INTERPRETATION	REMARKS
	Verify that emergency drills reports include a full chronology of events along with debriefing meeting minutes and follow up actions (if any).	
	Check the chronologies in the drill reports to verify that the emergency drills include the required elements as per section 7.6.2 and 7.6.3 of this Guideline.	
	Check the performance trial reports to verify that they have been completed at the required intervals (prior to the initial/renewal survey and between the 2 <sup>nd</sup> and 3 <sup>rd</sup> annual surveys).	If the trials have been witnessed by a third party other than a recognized classification society, the surveyor should consult with the <i>Regulators</i> in establishing whether the third party in question is acceptable. A brief quality control check should also be carried out on the trial report to verify that it is consistent with the provisions of Appendix E of this Guideline.
<b>8.1 Documents and Publications</b>	Sight onboard a current edition of the <i>Standby Vessel Guideline</i> and the <i>IAMASAR Manual, Volume III</i> .	
<b>8.2 Standby Vessel Operations Plan</b>	Sight onboard the Standby Vessel Operations Plan and verify that it addresses all 11 elements required under this section.	This may be an all-inclusive stand-alone document, or a reference document pointing to where each of the 11 elements is addressed. Elements may be addressed in the vessel's existing operating procedures, manuals, posted instructions, etc.
<b>8.3 Procedures for Normal Field Operations</b>	Sight the 7 procedures required by this section and review briefly to assess their quality. At the same time interview crewmembers to assess their familiarity with these procedures.	The crew should be able to readily access the procedures.
<b>8.4 Procedures for Emergency Response and Rescue Operations</b>	Sight the 7 procedures required by this section and review briefly to assess their quality. At the same time interview crewmembers to assess their familiarity with these procedures.	The crew should be able to readily access the procedures.

PROVISION	INTERPRETATION	REMARKS
<p><b>9. Emergency Response Equipment Inspections, Maintenance and Testing</b></p>		<p>The inspection, maintenance and testing routines may be recorded electronically or in hard copy. Where a routine is carried out as part of a drill (e.g., FRC launching) the drill report can be accepted as the record of that routine. In all cases verify that the maintenance records identify the individuals who performed the task and include a detailed description of the work carried out, as well as information on any findings and remedial actions taken.</p> <p>Note that the <i>Canadian Life Saving Equipment Regulations</i> require that any spare lifesaving equipment onboard must be maintained in accordance with the regulations. The maintenance requirements for medical equipment and supplies have already been addressed through section 6.5 above.</p>
	<p><b>FRC</b>            Cross reference the manufacturer’s instructions with the vessel’s maintenance program to verify that the recommended routines are adopted. Examine sample FRC and davit maintenance records to verify that the specified routines are observed. Examine the inspection records of the last two months to verify that the FRC and its launching arrangements are inspected on a <i>weekly</i> basis. Cross reference the manufacturer’s recommended spare parts list to the vessel’s inventory to verify that one set of critical spare parts for each identical FRC are carried onboard.</p>	<p>This is a <i>SOLAS</i> requirement that must be observed.</p>

PROVISION	INTERPRETATION	REMARKS
	<p><b>Powered Survivor Retrieval Device</b>                      Cross reference the manufacturer’s recommended maintenance routines for the powered survivor retrieval device to the vessel’s maintenance program to verify that the manufacturer’s instructions are adopted. Examine the sample maintenance records to verify that the established routines are observed. Examine maintenance records to verify that the device has been inspected and function tested on a monthly basis for the last six months.</p>	
	<p><b>Gas Detection Equipment</b>                      Examine records for the past six months to verify that the equipment is confirmed functional on a monthly basis. Examine records and certificates to verify that the equipment has been calibrated at the manufacturer’s recommended interval or annually (whichever more frequent).</p>	