Australian Government

Australian Maritime Safety Authority

AMSA MO 2012/7

Marine Order 21, issue 8 (Safety of navigation and emergency procedures)

I, Mick Kinley, Acting Chief Executive Officer of the Australian Maritime Safety Authority, make this Order under subsection 425(1AA) of the *Navigation Act 1912*.

2 November 2012

Mick Kinley
Acting Chief Executive Officer

Federal Register of Legislative Instruments F2012L02149

Page

Federal Register of Legislative Instruments F2012L02149

Division 1 Preliminary

1 Name of Order

This Order is *Marine Order 21, issue 8*.

2 Commencement

This Order commences on the day after it is registered.

3 Repeal of *Marine Orders Part 21, issue 7*

Marine Orders Part 21, issue 7 is repealed.

4 Purpose

4.1 This Order gives effect to the following regulations of SOLAS:

Regulations	Subject matter
Chapter III	
Regulations 19 and 30	Emergency training and drills
Chapter V	
Regulation 7.3	Plans on board passenger ships for cooperation with search and rescue authorities
Regulation 10.7	Mandatory ships' routeing systems
Regulation 11.7	Adopted ship reporting systems
Regulation 14	Minimum safe manning
Regulations 15 to 20	Principles of bridge design and the construction, maintenance and use of navigational systems and equipment
Regulation 21	International Code of Signals and search and rescue manual
Regulation 22	Navigation bridge visibility
Regulation 23	Pilot transfer arrangements
Regulations 24 to 26	Steering gear and systems
Regulation 27	Nautical charts and publications
Regulation 28	Keeping navigational records
Regulations 29 to 35	Use of life-saving signals and messages (including misuse of distress signals), operational limitations on passenger ships and general principles of safe navigation and voyage planning
Chapter VI	
Regulation 5-1	Material safety data sheets

Federal Register of Legislative Instruments F2012L02149

4.2 This Order also prescribes matters for the following provisions of the Navigation Act:

Provision	Subject matter
Section 229	Signals of distress and urgency
Section 232	Equipping ships with compasses, and examination and adjustment of compasses on ships
Section 235	Carrying out musters, boat drills, fire drills, collision drills and other prescribed drills, and recording them in the official log-book
Subsection 269A(1)	Sending safety signals and messages
Paragraph 425(1)(db)	Safe navigation and operation of ships
Paragraph 425(1)(e)	Safety of persons, including pilots, going on or coming from, or on board, ships

5 Power

5.1 Subsection 425(1AA) of the Navigation Act provides that AMSA may make orders about prescribed matters for or in relation to which provision may be made by regulation.

5.2 Section 191 of the Navigation Act provides that the regulations may give effect to SOLAS.

5.3 Subsection 425(1) of the Navigation Act provides for regulations to be made prescribing matters required or permitted to be prescribed or which are necessary or convenient to be prescribed for carrying out or giving effect to the Navigation Act.

6 Definitions

In this Order:

approved means approved by:

(a) for a ship registered in Australia — the Manager, Ship Inspection and Registration or a survey authority; or

(b) for a ship other than a ship registered in Australia — the administration of the country of registry of the ship; or

(c) for a training course — the Manager, Ship Operations and Qualifications.

certified person means a person who holds:

(a) a certificate of proficiency in survival craft and rescue boats, other than fast rescue boats, issued in accordance with the STCW Convention; or

(b) a certificate determined by the Manager, Ship Operations and Qualifications to be equivalent to that certificate.

closing appliance means a door or other closing device designed to prevent, when closed and secured, the entry of water into a ship through an opening on the ship.

coast radio station means a radio installation established on land for the exchange of radio communications with ships.

Federal Register of Legislative Instruments F2012L02149

digital selective calling (DSC) means a technique that:

(a) uses digital codes to enable a radio station to establish contact with, and transfer information to, another station or group of stations; and

(b) complies with recommendations of the ITU–R.

DSC urgency announcement means a digital selective call, relayed through radio stations, using:

(a) an urgency call format, in the bands used for terrestrial radiocommunication; or

(b) an urgency message format.

EPIRB means an approved emergency position indicating radio beacon.

ISM Code means the International Safety Management (ISM) Code as defined in Regulation 1 of Chapter IX of SOLAS.

ITU–R means the International Telecommunication Union — Radio Communication Sector.

licensed compass adjuster means a person who holds:

(a) a licence as compass adjuster issued under this Order; or

(b) a qualification determined by the Manager, Ship Operations and Qualifications to be equivalent to that licence.

NAVAREA has the meaning given by subsection 2.2 of IMO Circular MSC.1/Circ.1403 *Revised Navtex Manual*.

NAVAREA 10 has the meaning given by subsection 2.2 of IMO Circular MSC.1/Circ.1403 *Revised Navtex Manual*.

radio station means a ship radio station or a coast radio station.

satellite communication means transmission of information through the INMARSAT geostationary satellite service.

ship radio station means a radio installation on board a ship.

signal station means a signal station established on land for the exchange of visual communication with ships.

STCW Code means the Seafarers' Training, Certification and Watchkeeping (STCW) Code as adopted by resolution of the 2010 Conference of Parties to the STCW Convention.

survival craft, for a ship, means a craft capable of sustaining the lives of persons in distress from the time of abandoning the ship.

tanker means a cargo ship constructed or adapted for the carriage in bulk of flammable liquid cargoes.

telescopic accommodation ladder means an accommodation ladder made in 2 or more parts that slide longitudinally together or apart to vary its length.

Note 1 Some expressions used in this Order are defined in *Marine Order 1 (Administration)*, including:

- AMSA
- General Manager, Maritime Operations Division
- IMO
- Manager, Ship Inspection and Registration
- Marine Order

Federal Register of Legislative Instruments F2012L02149

- MARPOL
- Navigation Act
- Pollution Prevention Act
- SOLAS.

Note 2 Some expressions used in this Order are defined in the Navigation Act.

Note 3 For the value of a penalty unit — see *Crimes Act 1914*, s 4AA.

Note 4 Some expressions used in this Order are explained in *Marine Order 1 (Administration)*, including ***STCW Convention***, ***survey authority*** and ***penal provision***.

7 Interpretation

A reference to the Administration in SOLAS, Chapter V, an IMO resolution or a document mentioned in this Order is taken to mean the Manager, Ship Inspection and Registration.

8 Application

8.1 This Order applies to the following ships:

(a) a ship registered in Australia;

(b) a ship, registered in a country other than Australia, that is in the territorial sea of Australia or in waters on the landward side of the territorial sea.

8.2 However, this Order, other than sections 67 and 68, does not apply to a Safety Convention ship registered in a country other than Australia to the extent that the ship complies with SOLAS.

8.3 A provision of this Order giving effect to a provision of SOLAS, Chapter V applies to all ships, including ships mentioned in subsection 2(1) of the Navigation Act, except to the extent that a law of a State or the Northern Territory gives effect to that provision for that ship.

8.4 However, a provision of this Order giving effect to SOLAS, Chapter VI only applies to ships to which Chapter VI applies.

9 Transitional

9.1 An exemption or approval granted or continued, or a licence issued, under a provision of *Marine Orders Part 21, issue 7* and in force on the day before this Order comes into force, continues in force as if granted under this Order.

9.2 A licence as Compass Adjuster issued under the Navigation (Compass) Regulations and current on the day before this Order comes into force is taken to be a licence issued under this Order.

10 Exemptions and equivalents

10.1 A person may apply for an exemption from a requirement of this Order, or for acceptance of an equivalent measure, in accordance with the application process set out in *Marine Order 1 (Administration)*.

10.2 The Manager, Ship Inspection and Registration may exempt a ship or class of ships from compliance with a provision of this Order to the extent and subject to the conditions that he or she determines.

10.3 The Manager, Ship Inspection and Registration must not grant an exemption if it would contravene SOLAS.

10.4 If this Order requires a particular fitting, material, appliance or apparatus, or a type of it, (an ***item***) to be fitted or carried in a ship, or a particular provision to

be made in a ship, the Manager, Ship Inspection and Registration may allow another item to be fitted or carried, or another provision to be made:

(a) if he or she is satisfied that the other item or provision:

(i) is at least as effective as that required by this Order; and

(ii) would not contravene SOLAS; and

(b) to the extent and subject to the conditions that he or she determines.

Note Marine Order 1 (Administration) deals with the following matters about exemptions and equivalents:

- making an application
- seeking further information about an application
- the time allowed for consideration of an application
- imposing conditions on approval of an application
- notifying a decision on an application
- review of decisions.

11 Review of decisions

11.1 If AMSA makes a decision under this Order other than section 10, a person affected by the decision may, within 3 months after notification of the decision or a longer period determined by the General Manager, apply to the General Manager for review of the decision.

11.2 The application must:

(a) be in writing to the General Manager; and

(b) include any information the General Manager requires to review the decision.

11.3 The General Manager may:

(a) affirm the original decision; or

(b) make any decision that could be made by AMSA under this Order.

11.4 The General Manager must give his or her decision in writing within 28 days after receiving the application for internal review.

11.5 Notice of the decision must include a statement to the effect that:

(a) if the person is dissatisfied with the decision, the person may, subject to the *Administrative Appeals Tribunal Act 1975*, apply to the Administrative Appeals Tribunal for review of the decision; and

(b) the person may request a statement under section 28 of that Act.

11.6 Failure to comply with subsection 11.5 for a decision does not affect the validity of the decision.

11.7 Application may be made to the Administrative Appeals Tribunal for review of a decision by the General Manager under subsection 11.3.

Federal Register of Legislative Instruments F2012L02149

Division 2 Safety of navigation

12 Cooperation with search and rescue services

[SOLAS V/7.3]

For a passenger ship to which SOLAS, Chapter I applies:

(a) the owner must ensure that there is on board the ship a plan, in accordance with Regulation 7.3 of Chapter V of SOLAS, for cooperation with search and rescue services in an emergency; and

(b) the master must conduct periodic exercises in accordance with the plan.

Note for paragraph (a) For preparing plans — see IMO Circular MSC/Circ.1079, *Guidelines for preparing plans for cooperation between search and rescue services and passenger ships (in accordance with Regulation V/7.3 of SOLAS)*.

13 Ships' routeing systems

[SOLAS V/10.7]

13.1 The master of a ship must use any ships' routeing system required by Regulation 10.7 of Chapter V of SOLAS.

13.2 However, the master may not use the system if there are compelling reasons not to do so.

13.3 The master must record any reasons for not using the system in the ship's official log-book.

14 Ship reporting systems

[SOLAS V/11.7]

The master of a ship must comply with Regulation 11.7 of Chapter V of SOLAS.

This is a penal provision.

15 Ships' manning

[SOLAS V/14]

15.1 For a ship to which Part II of the Navigation Act and Regulation 14 of Chapter V of SOLAS applies, the owner may apply to the Manager, Ship Operations and Qualifications for a minimum safe manning document for the ship.

15.2 The application must be in the approved form.

Note Approved forms are available on AMSA's website http://www.amsa.gov.au.

15.3 The Manager, Ship Operations and Qualifications may issue the safe manning document in accordance with Regulation 14 of Chapter V of SOLAS only if the ship's manning complies with IMO Resolution A.1047(27) *Principles of minimum safe manning*.

15.4 For a ship to which Regulation 14 of Chapter V of SOLAS applies, the owner of the ship must ensure that the safe manning document is kept on board the ship and is available for inspection.

This is a penal provision.

15.5 The owner of a ship must establish the working language of the ship and ensure that it is given effect in accordance with Regulation 14 of Chapter V of SOLAS.

This is a penal provision.

Federal Register of Legislative Instruments F2012L02149

16 Bridge design, bridge procedures, design and arrangement of navigational systems and equipment

[SOLAS V/15]

The owner of a ship must make decisions about bridge design, bridge procedures and the design and arrangements of navigational equipment in accordance with Regulation 15 of Chapter V of SOLAS.

17 Maintenance of navigational equipment

[SOLAS V/16]

17.1 The master of a ship must take all reasonable steps to have navigational equipment maintained in efficient working order.

17.2 The owner of a ship must ensure that spare parts and tools for repairs to navigational equipment fitted on the ship are available on the ship.

This is a penal provision.

17.3 The spare parts and tools must be recommended by the manufacturer of the navigational equipment.

17.4 However, if the ship is at a place where repair facilities are not available and a defect in navigational equipment is discovered on the ship, the master of the ship may, if agreed by AMSA, proceed to a port where repairs can take place.

17.5 For subsection 17.4, the master of the ship must ensure that the inoperative equipment or the unavailability of information is taken into account when planning and making the voyage to the port.

18 Information and instructions for equipment

18.1 The owner of a ship must ensure that information and instructions about the use and maintenance of all navigational equipment on the ship are on the ship.

This is a penal provision.

18.2 The owner of the ship must ensure that the information and instructions are written in English or, for a foreign ship the working language of the ship.

This is a penal provision.

19 Magnetic compass

19.1 The master of a ship must ensure that:

(a) for a ship over 100 gross tonnage:

(i) a compass deviation book is kept on the ship; and

(ii) the information mentioned in Schedule 1 is recorded in the compass deviation book; and

(b) if the observations for a magnetic compass on the ship show a deviation of the compass on any heading of more than 5^{o} — the compass is adjusted by a licensed compass adjuster at the first port where an adjuster is available to correct the deviation; and

(c) for each magnetic compass fitted on the ship — the tables or curve of residual deviations from the last adjustment, and details of subsequent changes in deviations, are available for use at all times; and

(d) the size and position of magnets and soft iron correctors in a compass fitted on the ship and the date and nature of any changes made to them or to their

Federal Register of Legislative Instruments F2012L02149

position are recorded by the person making the adjustment in the compass deviation book.

This is a penal provision.

19.2 When a licensed compass adjuster completes an examination and adjustment of a ship's compasses, he or she must give to the master a table of deviations in accordance with Form MO—21/1 in Schedule 2.

19.3 A surveyor may direct the master of a ship to have the ship's compasses adjusted in accordance with paragraph 19.1(b) if:

(a) paragraph 19.1(c) or (d) has not been complied with; and

(b) the surveyor thinks that the compasses of the ship are, or may be, unreliable.

19.4 The master of a ship must comply with the direction as soon as practicable.

20 Electromagnetic compatibility

[SOLAS V/17]

20.1 The owner of a ship must ensure that the electrical and electronic equipment on or near the bridge of a ship constructed after 30 June 2002 is tested for electromagnetic compatibility.

20.2 The owner of a ship must ensure that electrical and electronic equipment installed after 30 June 2002 does not affect navigational systems and equipment on the ship.

This is a penal provision.

20.3 A person must not operate portable electrical or electronic equipment installed on a ship if it may affect navigational systems and equipment on the ship.

This is a penal provision.

21 Navigational systems and equipment

[SOLAS V/18, 19 and 20]

21.1 The owner of a ship must ensure that the systems and equipment mentioned in Regulations 19 and 20 of Chapter V of SOLAS for the ship are type approved and installed.

21.2 The owner of a ship must ensure that systems and equipment, associated back-up arrangements, replacements and additions installed after 30 June 2002 comply with each IMO Resolution and Circular mentioned in Schedule 3.

Note Systems fitted before 1 July 2002 must comply with the IMO Resolutions mentioned in *Marine Order 21, issue 3*.

21.3 For a ship carrying an electronic chart display and information system (***ECDIS***) as the means of complying with Regulation 19.2.1.4 of Chapter V of SOLAS:

(a) the owner of the ship must ensure that the system and the back-up arrangements required by Regulations 19.2.1.4 and 19.2.1.5 of Chapter V of SOLAS are approved; and

(b) the master of the ship and all deck watchkeeping officers must have completed an approved training course in its use in accordance with the STCW Code, Chapter II, Part A.

21.4 The owner of a ship must ensure that:

Federal Register of Legislative Instruments F2012L02149

(a) any automatic identification system used on the ship is tested annually by an approved surveyor or an approved testing or servicing facility in accordance with Regulation 18.9 of Chapter V of SOLAS; and

(b) any voyage data recorder system used on the ship, including all sensors, is tested by an approved testing or servicing facility in accordance with Regulation 18.8 of Chapter V of SOLAS.

21.5 The owner of a ship must ensure that a copy of a document issued by the testing or servicing facility for paragraph 21.4(b), stating the date of compliance and the performance standards for the system, is available for inspection on board the ship at all times.

22 Long-range identification and tracking of ships

[SOLAS V/19-1]

The owner of a ship to which Regulation 19-1 of Chapter V of SOLAS applies must ensure that:

(a) the equipment mentioned in the regulation is fitted; and

(b) the information mentioned in paragraph 5 of the regulation is transmitted automatically.

23 International Code of Signals and IAMSAR Manual

[SOLAS V/21]

The owner of a ship must ensure that the following documents are kept on the ship and are available for inspection:

(a) the International Code of Signals;

(b) An up to date copy of Volume III of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual.

24 Navigation bridge visibility

[SOLAS V/22]

24.1 The owner of a ship must not use the ship if it:

(a) is at least 55 m long; and

(b) was constructed after 30 June 1998; and

(c) does not comply with Regulation 22.1 of Chapter V of SOLAS.

This is a penal provision.

24.2 A person must not use a ship that:

(a) is at least 55 m long; and

(b) was constructed before 1 July 1998; and

(c) does not comply with paragraphs 1.1 and 1.2 of Regulation 22 of Chapter V of SOLAS.

This is a penal provision.

25 Pilot transfer arrangements

[SOLAS V/23]

25.1 When a ship uses a pilot, the owner must ensure that pilot transfer arrangements are in place in accordance with Regulation 23 of Chapter V of SOLAS.

Note For pilot ladders — see IS0799-2004.

Federal Register of Legislative Instruments F2012L02149

This is a penal provision.

25.2 When a ship uses a pilot, the master must ensure that the arrangements mentioned in subsection 25.1 are carried out.

This is a penal provision.

25.3 A surveyor may prohibit further use of a pilot boarding arrangement if he or she thinks that the means of access are defective or do not comply with this Order.

25.4 A master who receives written notice of a prohibition under subsection 25.2 must ensure that the means of access are not used for pilot transfer arrangements until the defect or non-compliance is rectified.

This is a penal provision.

26 Use of heading or track control systems

[SOLAS V/24]

26.1 The master of a ship must ensure that manual control of the ship's steering can be established immediately when heading or track control systems are in use on the ship.

26.2 The officer of the watch must ensure that a person who has an approved steering certificate is available to take manual control of the ship's steering immediately when the ship is operating in an area where navigation requires special caution.

Examples of places where navigation requires special caution

- an area of high traffic density
- conditions of restricted visibility
- any other hazardous navigational circumstances.

26.3 The master of a ship must ensure that a change from automatic to manual control and from manual to automatic control of a ship's steering is made:

(a) by the officer of the watch; or

(b) under the supervision of the officer of the watch.

26.4 The master of a ship must ensure that the manual steering of a ship is tested:

(a) after prolonged use of the heading or track control systems; and

(b) before entering an area where navigation requires special caution.

27 Operation of steering gear

[SOLAS V/25]

The master of a ship that has 2 or more steering gear power units capable of simultaneous operation must ensure that at least 2 units are operating when the ship is entering an area where navigation requires special caution.

28 Steering gear — testing and drills

[SOLAS V/26]

28.1 The master of a ship must ensure that, within 12 hours before a ship's departure from a port, the ship's steering gear is checked and tested by the ship's crew in accordance with paragraphs 1 and 2 of Regulation 26 of Chapter V of SOLAS.

This is a penal provision.

28.2 The Manager, Ship Inspection and Registration may exempt a ship or class of ships that regularly travels on voyages of short duration from compliance with subsection 28.1.

Note For an application for an exemption — see subsection 10.1.

28.3 The master of a ship that is given an exemption under subsection 28.2 must ensure that the checks and tests mentioned in subsection 28.1 are carried out at least once every week.

28.4 The owner of a ship must ensure that simple operating instructions are permanently displayed on the navigation bridge and on the steering compartment, including a block diagram showing the change-over procedures:

(a) for a ship with remote steering gear control systems — for the remote steering gear control systems; or

(b) for a ship with steering gear power units — for the steering gear power units.

28.5 The master of a ship must ensure that all officers operating or maintaining steering gear on a ship are familiar with the operation of the steering systems on the ship and the procedures for changing between systems.

28.6 The master of a ship must ensure that, at least once every 3 months, emergency steering drills take place to test the emergency steering procedures on the ship, including:

(a) direct control from within the steering gear compartment; and

(b) the communications procedure with the navigating bridge; and

(c) the operation of any alternative power supplies.

This is a penal provision.

28.7 The master of a ship must ensure that the following information is recorded in the official log-book:

(a) the date the checks and tests mentioned in subsection 28.1 are carried out;

(b) the date and details of emergency steering drills mentioned in subsection 28.6 are carried out.

This is a penal provision.

29 Nautical charts and nautical publications

[SOLAS V/27]

29.1 The owner of a ship embarking on a voyage must ensure nautical charts and nautical publications on board for the voyage are adequate and up to date.

29.2 The owner of a ship must ensure that any electronic version of a nautical chart or publication mentioned in subsection 29.1 is:

(a) a version officially issued by an administration, authorised hydrographic office or other approved organisation; and

(b) accessible using a computer that is:

(i) located on the bridge; and

(ii) available at all times to the officer of the watch; and

(iii) connected to the ship's main and emergency power supplies; and

Federal Register of Legislative Instruments F2012L02149

(c) available:

(i) on at least 1 other back up computer that can be made available to the officer of the watch within 5 minutes; or

(ii) as up to date printouts of the nautical charts or publications.

29.3 For an electronic nautical chart, the owner must ensure that the chart is displayed on an electronic chart display and information system in accordance with Regulation 27 of Chapter V of SOLAS.

29.4 The owner of a ship must ensure that all software and hardware used for accessing official electronic versions of nautical publications complies with the recommendations of MSC/Circ.891 *Guidelines for the onboard use and application of computers*.

29.5 The master of a ship must ensure that the information mentioned in sections 29.1 and 29.2 is on board before embarking on a voyage.

30 Records of navigational activities

[SOLAS V/28]

The master of a ship on an international voyage must ensure that:

(a) the navigational activities and incidents of importance to safety of navigation on the ship are recorded; and

(b) the records:

(i) contain sufficient detail to enable the restoration of a complete record of the voyage; and

(ii) are available for inspection on the ship at all times.

Note For guidance on records — see IMO Resolution A.916(22): *Guidelines for recording of events related to navigation*.

31 Life-saving signals to be used by ships, aircraft or persons in distress

[SOLAS V/29]

The owner of a ship must ensure that an illustrated table describing the life-saving signals to be used when communicating with life-saving stations, maritime rescue units and aircraft engaged in search and rescue operations is available to the officer of the watch at all times.

This is a penal provision.

Note Life-saving signals are described in the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR) Vol. III, Mobile Facilities, and illustrated in the International Code of Signals, as amended under IMO Resolution A.80(IV) *International Code of Signals*.

32 Operational limitations

[SOLAS V/30]

The owner of a passenger ship must ensure that the operational limitations of the ship are documented in accordance with Regulation 30 of Chapter V of SOLAS.

Division 3 Compass adjuster licence

33 Application for licence

33.1 A person may apply in writing to AMSA for a compass adjuster licence in accordance with the application process set out in *Marine Order 1 (Administration)*.

Note 1 For the procedure for making an application and how it is dealt with — see *Marine Order 1 (Administration)*.

Note 2 Under s 58 of the AMSA Act, AMSA may, by written instrument, delegate to a person any of its powers under this Order.

33.2 AMSA may issue the licence only if satisfied that the applicant has:

(a) prior knowledge of ship compasses including the management of the navigation and handling of ships required to carry a magnetic compass; and

(b) completed an approved training course on the adjustment of compasses; and

(c) assisted in adjusting the compasses of at least 12 ships during the last 3 years, including no more than 3 adjustments while the applicant is completing the course.

Note Details of approved courses are available on AMSA's website at http://www.amsa.gov.au.

33.3 For paragraph (b) of the definition of ***licensed compass adjuster*** in section 6, AMSA may determine that a qualification is equivalent to a compass adjuster licence if it is:

(a) a licence issued by an authority in Australia other than AMSA; or

(b) a licence issued by an authority in a country other than Australia.

34 Cancellation of licence

34.1 AMSA may cancel a compass adjuster licence if:

(a) the holder of the licence is unable to perform the duties appropriate to the licence; or

(b) the licence has been unlawfully altered; or

(c) the licence has been obtained by false representation; or

(d) the licence contains factual errors.

34.2 If AMSA cancels the licence, AMSA must give written notice of the cancellation to the holder as soon as practicable.

34.3 The holder of a compass adjuster licence that has been cancelled must surrender it to AMSA within 14 days after receiving the notice of cancellation.

This is a penal provision.

Federal Register of Legislative Instruments F2012L02149

Division 4 Danger, urgency and distress messages

Subdivision 4.1 Safety signals and danger messages

[SOLAS V/31 & V/32]

35 Safety signals and danger messages

For paragraph 269A(1)(b) of the Navigation Act:

(a) the safety signal is the word 'securite' (pronounced 'say-cure-e-tay') spoken 3 times; and

(b) the danger message must include the information mentioned in Regulations 31 and 32 of Chapter V of SOLAS; and

(c) the report to shore is to be made to:

(i) for a ship in NAVAREA X — the Rescue Coordination Centre Australia; or

(ii) for a ship outside NAVAREA X — the Coordinator for the NAVAREA the ship is in.

Note 1 For paragraph (a), the sending of a safety signal will normally be preceded by a DSC safety announcement, or Inmarsat EGC message with safety priority.

Note 2 The telephone number of the Rescue Coordination Centre Australia is 1800 641 792 and the fax number is 1800 622 153.

36 Transmission of safety signals and danger messages

36.1 A person may transmit the safety signal only for the purpose of giving notice that the calling radio station has a danger message to transmit about an important navigational or meteorological warning.

This is a penal provision.

36.2 The master of a ship must ensure that the safety signal is sent in accordance with Article 33 of ITU Radio Regulations.

36.3 The master must:

(a) send the danger message as soon as he or she has the information mentioned in paragraph 36.1; and

(b) end the danger message with the name of the ship and the call sign of the ship radio station.

36.4 After sending the danger message, the master must make the observations and reports mentioned in paragraph 3 of Regulation 32 of Chapter V of SOLAS.

37 Duties of person receiving a safety signal

37.1 A person who operates a radio station on a ship and hears the safety signal must listen on the radio frequency used for the transmission of the danger message until he or she is satisfied that the message is of no concern to the ship.

This is a penal provision.

37.2 A person must not interfere with the transmission of a danger message that follows the transmission of the safety signal.

This is a penal provision.

Federal Register of Legislative Instruments F2012L02149

38 Priority of safety traffic

A danger message preceded by the safety signal has priority over all communications other than distress and urgency communications.

39 Official log-book entries

The master of a ship must ensure that an entry is made in the official log-book recording:

(a) any new danger to navigation observed; and

(b) any danger message received for a new danger to the navigation of the ship; and

(c) information received on a new danger to the navigation of the ship; and

(d) any danger message and information sent or transmitted about a new danger to navigation and the exact time and position of the ship when the transmission is made.

This is a penal provision.

Subdivision 4.2 Urgency and distress messages

[SOLAS V/33]

40 Urgency signal

40.1 For subsection 229(1) of the Navigation Act, the urgency signal is the words 'pan pan'.

Note The sending of an urgency signal will normally be preceded by a DSC urgency announcement or Inmarsat EGC message with safety priority.

40.2 A person may transmit the urgency signal and a following message only:

(a) when giving notice that the calling radio station has an urgent message to transmit about the safety of a ship, an aircraft, a vehicle or a person; and

(b) unless subsection 41.1 applies — on the distress frequency.

This is a penal provision.

40.3 An urgency signal and urgency traffic has priority over all other radio communications except distress traffic.

41 Urgency messages

41.1 If an urgency message that follows the urgency signal is a long message, a medical call or, in an area of heavy radio traffic, a repeated message, the radio frequency used for the message must:

(a) not be the distress frequency; and

(b) be stated in the DSC urgency announcement or urgency message.

41.2 A person must not interfere with the transmission of the urgency message that follows the transmission of the DSC urgency announcement or urgency signal.

This is a penal provision.

41.3 When the master of a ship who sent the urgency message is satisfied that action called for by the urgency message is no longer necessary, the master must ensure that a further message is transmitted cancelling the urgency message.

This is a penal provision.

Federal Register of Legislative Instruments F2012L02149

42 Authority for transmission of urgency signal

A person on board a ship may transmit an urgency signal or message only if he or she is authorised by the master of the ship to do so.

43 Signal of distress

For subsection 229(1) of the Navigation Act, the signal of distress is the spoken word ‘mayday’.

Note The sending of a distress signal will normally be preceded by a DSC alert or Inmarsat EGC with distress priority. See also the signals mentioned in Annex IV in the Schedule to *Marine Orders, Part 30 (Prevention of Collisions)*.

44 Use of signal of distress

A person may transmit a signal of distress only if it relates to the transmission of:

(a) a distress call and a distress message; or

(b) the acknowledgment of a distress message; or

(c) other distress traffic mentioned in this Order.

This is a penal provision.

45 Distress defence

For a person who is operating the radio station of a ship, it is a defence to a prosecution under this Order that:

(a) the ship is in distress; and

(b) the person cannot comply with this Order; and

(c) the person uses any means available to attract attention to make known the ship's position and to obtain help.

46 Obligations and procedures

The master of a ship must meet the obligations and follow the procedures mentioned in Regulation 33 of Chapter V of SOLAS.

This is a penal provision.

47 Duties on activation of a distress watch receiver

47.1 When the distress frequency watch receiver or Inmarsat EGC receiver distress alarm on a ship is activated, the person in charge of the ship radio station, if it is safe, must commence watch on the distress frequency or other frequency specified by the urgency or distress message.

This is a penal provision.

47.2 Subject to section 48, the person must, if it is safe to do so, keep watch for a sufficient time to ensure that:

(a) the urgency message or distress signal is received; or

(b) an urgency or distress message would have been received if one had been transmitted and the ship had been within range of the transmitting station; or

(c) the person is satisfied that the activation was due to:

(i) a fault in the radio installation, or

(ii) an electrical storm.

This is a penal provision.

47.3 A person who receives an urgency or distress message, must immediately give the master details of the message if it is safe to do so.

This is a penal provision.

48 Duties of a person hearing an urgency or distress signal

48.1 A person who hears an urgency or distress signal must, if it is safe to do so, continue to listen on the radio frequency on which it was received and must not resume normal radio service until:

(a) if no message follows the signal — the end of at least 5 minutes; or

(b) if a message follows the signal — the person has told the master of the ship details of the message and the master has permitted resumption of normal radio service.

This is a penal provision.

48.2 The person in charge of the ship radio station may resume normal communication on frequencies other than that used for the urgency or distress communication when a message that follows the activation of a DSC or EGC distress alert:

(a) is not addressed to all radio stations; or

(b) is addressed to all ships in a geographical area that does not include the current position of the ship.

Division 5 General requirements

49 Safe navigation and avoidance of dangerous situations

[SOLAS V/34]

49.1 The master of a ship must ensure that voyage planning has been carried out in accordance with Regulation 34 of Chapter V of SOLAS.

Note For information on voyage planning — see the following:

(a) IMO Resolution A.893(21) *Guidelines for voyage planning*;

(b) IMO Resolution A.1024(26) *Guidelines for ships operating in polar waters*;

(c) IMO Circulars MSC/Circ.1063 *Participation of ships in weather routeing services*;

(d) IMO Circular MSC/Circ.1293 *Participation in the WMO voluntary observing ships (VOS) scheme*;

(e) IMO Resolution A.999(25) *Guidelines on voyage planning for passenger ships operating in remote areas*;

(f) IMO Circular MSC/Circ.1056 *Guidelines for ships operating in Arctic ice-covered waters*.

Federal Register of Legislative Instruments F2012L02149

49.2 A person must not prevent or restrict the master of a ship from taking or executing any decision that the master says is necessary for safe navigation and protection of the marine environment.

This is a penal provision.

50 Misuse of distress and safety signals

50.1 A person may do any of the following only if permitted by a Marine Order:

(a) transmit or display a signal of distress;

(b) transmit an urgency signal;

(c) send out a danger message.

This is a penal provision.

50.2 A person may use a flare, rocket or shell, that could be mistaken for a prescribed signal of distress coming from a ship, only if:

(a) the person or another person is in distress; or

(b) approval has been received from the Rescue Coordination Centre Australia.

This is a penal provision.

Note 1 The address of the Rescue Coordination Centre Australia is GPO Box 2181, Canberra ACT 2601, the telephone number is 1800 641 792 and the fax number is 1800 622 153. Notice should be given 7 days in advance.

Note 2 The person may also need to comply with State or Territory requirements. A flare demonstration notification form is available from the AMSA website at http://www.amsa.gov.au.

50.3 If a distress signal is accidentally transmitted or displayed from a ship when there is no danger to the ship, the master of the ship must immediately tell the marine rescue coordination centre for the search and rescue area:

(a) about the accidental transmission; and

(b) that there is no danger to the ship.

This is a penal provision.

Note Cancellation of a distress alert sent accidentally must be in accordance with Article 32 of the International Telecommunication Convention Radio Regulations annexed to the most recent International Telecommunication Convention in force.

50.4 A person who removes an EPIRB from a ship, other than for test or repair, must ensure that the EPIRB is transported in accordance with the manufacturer's instructions.

This is a penal provision.

51 Material safety data sheets

[SOLAS VI/5-1]

The owner of a ship that carries oil as cargo in bulk or fuel oil, as defined in regulation 1 of Annex I to MARPOL, must ensure that material safety data sheets, based on the recommendations in IMO Resolution MSC.286(86), are on board the ship before the oil or fuel oil is loaded.

This is a penal provision.

Division 6 Emergency procedures

52 General emergency alarm signal

52.1 The general emergency alarm signal for an emergency station muster of the passengers and crew of a ship is a signal of at least 7 short blasts followed by 1 long blast on the ship's whistle or siren.

52.2 In an emergency, the master of a ship must ensure that:

(a) the general emergency alarm signal is sounded, and repeated on the ship's electrically operated warning bell system; and

(b) suitable instructions to passengers and crew are given over a public address system, if fitted, or by any other means available.

53 Signal to prepare to abandon ship

53.1 The signal to prepare to abandon ship is 1 short blast followed by 1 long blast on the ship's whistle or siren, sounded at least 3 times in succession.

53.2 If the master of a ship decides to abandon ship, the master must ensure that:

(a) the signal to prepare to abandon ship is sounded, and repeated on the ship's electrically operated warning bell system; and

(b) instructions stating what the passengers and crew must do are given over a public address system, if fitted, or by any other effective means available; and

(c) the engine-room telegraph is put to 'Finished with Engines', unless the master considers that it would adversely affect the safety of passengers and crew.

53.3 If a ship is to be abandoned, the master of the ship must ensure that:

(a) any machinery or appliance whose operation could impede the safe abandonment of the ship is stopped, disengaged or otherwise rendered inoperative; and

(b) stabilisers, if extended and liable to interfere with survival craft, are retracted; and

(c) all crew members working below deck or in other parts of the ship distant from survival craft are warned by all means available that the ship is to be abandoned, in sufficient time to allow all crew members to reach their survival craft stations.

54 Abandon ship signal

54.1 The master of a ship must define the abandon ship signal and state it in each muster list.

54.2 When abandoning ship, the master of the ship or senior surviving officer must:

(a) give the abandon ship signal in the most effective manner possible; and

(b) authorise those in charge of survival craft to launch the craft as soon as ready.

Federal Register of Legislative Instruments F2012L02149

55 Emergency drills

55.1 The signal for an emergency drill on a ship is the general emergency alarm signal with the master's instruction that an emergency drill is in place, given:

(a) over a public address system, if fitted; or

(b) by any other effective means.

55.2 The master of a ship must ensure that the signal and instructions mentioned in subsection 55.1 are given.

55.3 If the master of a ship considers the emergency signal to be a nuisance outside the ship, he or she may initiate the emergency drill using:

(a) the ship's electrically operated warning bell system; or

(b) instructions given over the ship's public address system, if fitted; or

(c) any other equally effective means.

55.4 The master of a ship must ensure that:

(a) before a signal is given for an emergency drill, all passengers and crew are warned about:

(i) the time for the practice to be held; and

(ii) the emergency drill signal; and

(b) for a passenger ship — all passengers are told what actions to take.

55.5 The master of a ship must arrange for practice musters and drills required by *Marine Order 25 (Equipment — life-saving)*.

This is a penal provision.

55.6 The master of a ship must arrange for training sessions for the crew in survival and use of equipment, at suitable intervals to ensure that the crew maintain their competence in survival and use of equipment.

This is a penal provision.

Note These training sessions are not emergency drills, but may be combined with them.

55.7 The master of a passenger ship must ensure that the crew carries out a practice of the closure of internal watertight doors on the ship at least once each week.

This is a penal provision.

55.8 The master of a ship must ensure that the emergency drill procedures mentioned in Schedule 4 are carried out in accordance with Regulations 19 and 30 of Chapter III of SOLAS.

Note SOLAS requirements for emergency drills are also mentioned in *Marine Order 25 (Equipment — life-saving)*.

56 Muster list and emergency instructions

56.1 The master of a ship must ensure that clear instructions about what to do in an emergency are given to every person on the ship in accordance with IMO Circular MSC/Circ.699 *Revised guidelines for passenger safety instructions*, or for ro-ro vessels IMO Circular MSC/Circ.681 *Guidelines for passenger safety instructions on ro-ro passenger ships*.

This is a penal provision.

56.2 The master of a ship carrying passengers must:

(a) assign each passenger to a muster station; and

(b) record information about the assignment in a notice in the form mentioned in Schedule 5; and

(c) display the notice at all times in the numbers and the places required by a surveyor.

56.3 The owner of a ship carrying passengers must ensure that the muster stations for passengers are indicated by painted or other signs readily visible by day or night.

Note For appropriate signs — see IMO Resolution A.760(18) *Revised guidelines for safety passenger instructions* as amended by IMO Resolution MSC.82(70) *Amendments to resolution A.760(18) Symbols related to life-saving appliances and arrangements* and IMO Circular MSC.1/Circ.1244 *Symbol of infant life jacket*.

56.4 The master of a ship must ensure that:

(a) each crew member, on joining the ship, is assigned to an emergency station and to a survival craft; and

(b) each lifeboat on a passenger ship has assigned to it at least the number of certified persons mentioned in the following table.

Carrying capacity of lifeboat	Number of certified persons
less than 41 persons	2
41 to 61 persons	3
62 to 85 persons	4
86	5

56.5 The master of a ship must:

(a) assign to crew members duties relating to emergencies that may occur on the ship; and

(b) provide instructions to crew members on those duties.

Note If the size of the crew permits, specialised emergency parties could be designated to deal with specific emergencies and duties. In other cases, the whole crew might muster at a specific point (except those whose duties necessitate them remaining at their posts, or whose emergency duties require them to undertake a specific duty, such as a person in charge of emergency radio communications) and be given relevant tasks as appropriate.

56.6 The master must ensure that the assignments made under subsections 56.4 and 56.5 are:

(a) recorded in accordance with Schedule 6; and

(b) displayed on the ship in a way that the crew can easily see them.

57 Responsibilities of owner, master and crew

57.1 The owner of a ship must give a copy of this Order to:

(a) the master of the ship; and

(b) for a passenger ship — each officer or other person who is directly responsible to the master for a department of the ship.

This is a penal provision.

Federal Register of Legislative Instruments F2012L02149

57.2 The master of a ship must ensure the following:

(a) the requirements of subsections 57.1 to 57.4 are met to the extent that crew members become conversant with their assigned emergency stations and duties, and emergency procedures generally;

(b) crew members are trained in the operation and application of all life-saving, fire fighting and other emergency appliances and equipment provided in the ship;

(c) there is a copy of *Survival at Sea*, published by AMSA, at or near the cabin berth of each crew member for the crew member's exclusive use;

(d) entries are made in the ship's official log-book recording each practice muster and drill, test and inspection held for section 56;

(e) if a practice muster or drill, test or inspection required by section 56 is not held — an entry is made in the ship's official log-book stating the reasons for non-compliance.

57.3 Each officer or other person mentioned in paragraph 57.1(b) must:

(a) be familiar with the requirements of subsections 56.1 to 56.5; and

(b) ensure that all members of the crew under his or her control are instructed in:

(i) their assigned duties under subsection 56.4; and

(ii) the survival craft, fire and damage control drills.

This is a penal provision.

57.4 Each member of a ship's crew must be familiar with the contents of *Survival at Sea* and, except during training sessions, keep it at or near the cabin berth he or she occupies.

Division 7 Additional safety measures

Subdivision 7.1 Watertight opening in ships — safety procedures

58 Watertight doors

58.1 The master of a ship must ensure that all watertight doors are closed while the ship is at sea.

This is a penal provision.

58.2 However, a watertight door may be opened at sea if:

(a) it is necessary for the door to be open for the working of the ship; or

(b) the door is opened and closed for testing in accordance with section 64.

Note See also IMO Circular MSC.1/Circ.1380 *Guidance for watertight doors on passenger ships which may be opened during navigation.*

58.3 The master must ensure that the area around the doorway of a water tight door is unobstructed.

This is a penal provision.

59 Portable plates

59.1 The master of a ship must ensure that, before a voyage starts, any portable plate over an opening in the internal watertight structure of a ship is fitted.

59.2 The master of a ship may order the removal of a portable plate when a ship is at sea if he or she considers that the removal of the plate is an urgent necessity.

59.3 A person may remove a portable plate when a ship is at sea only on the direct order of the master.

This is a penal provision.

60 Openings to be kept closed at sea

60.1 The master of a ship must ensure that each of the following openings on the ship are closed watertight and secured before the ship leaves a berth or anchorage:

(a) any watertight door in a watertight bulkhead separating cargo spaces or separating a cargo space from a passenger space;

(b) any watertight door that does not comply with paragraphs 5.1, 5.2, 5.3 and 6 of Regulation 13 of Chapter II-1 of SOLAS;

(c) any sidescuttle that:

(i) is below the freeboard deck; and

(ii) has its lowest point no more than 1.4 m plus 2.5% of the breadth of the ship above the waterline when the ship is first afloat in seawater on proceeding to sea;

(d) any sidescuttle that is not accessible while the ship is at sea, and its deadlights;

(e) any gangway port, cargo port or coaling port or similar side opening below the margin line, or below the freeboard deck in a ship.

This is a penal provision.

60.2 A person must not open an opening mentioned in subsection 60.1 when the ship is at sea.

This is a penal provision.

60.3 Subsection 60.4 applies to each sidescuttle to which paragraph 60.1(c) applies when the ship is floating at its deepest subdivision load line.

60.4 The Manager, Ship Inspection and Registration may set a limiting mean draft at which the sidescuttle must have its sills:

(a) above the line parallel to the bulkhead deck at side; and

(b) with its lowest point 1.4 m plus 2.5% of the breadth of the ship above the waterline corresponding to the limiting mean draft.

60.5 The master of a ship that complies with the limiting mean draft may:

(a) take the ship from port without closing and locking the sidescuttle; and

(b) open the sidescuttle at sea during the next voyage to port.

60.6 In a tropical zone, the limiting mean draft may be increased by 0.3m.

60.7 In this section

bulkhead deck means the uppermost continuous deck of a ship to which all main transverse watertight bulkheads are carried.

Federal Register of Legislative Instruments F2012L02149

61 Closure of cargo loading doors

61.1 The master of a ship must ensure that the following doors are closed and secured before a ship starts a voyage:

(a) any cargo loading door in the shell or the boundary of an enclosed superstructure;

(b) any bow visor fitted in the shell or the boundary of an enclosed superstructure;

(c) any cargo loading door in the collision bulkhead;

(d) any weather-tight ramp forming an alternative to a closure mentioned in paragraph (a), (b) or (c).

This is a penal provision.

61.2 A person may unlock or open a door mentioned in subsection 61.1 only when the ship is at berth.

This is a penal provision.

61.3 However, the master of the ship may allow a bow or stern door to be opened or closed when the ship approaches or leaves the berth if the door cannot be opened or closed when the ship is at berth.

61.4 A person who opens a bow door or visor when a ship approaches or leaves a berth must ensure that the inner bow door is closed.

61.5 Also, the master of the ship may allow a door to be opened if:

(a) it is necessary for the operation of the ship or the embarking or disembarking of persons; and

(b) the ship is at safe anchorage; and

(c) the master is satisfied that the opening of the door will not impair the safety of the ship.

61.6 The master must ensure that the opening and closing of doors mentioned in subsection 61.1 is supervised by an officer.

This is a penal provision.

62 Sidescuttles in spaces used for cargo

62.1 The master of a ship must ensure that any sidescuttle or deadlight on an area of the ship used for the carriage of cargo is closed, watertight and locked before the cargo are loaded.

This is a penal provision.

62.2 A person must not unlock or open a sidescuttle or deadlight mentioned in subsection 62.1 until the cargo are unloaded.

This is a penal provision.

63 Ash-chutes, rubbish-chutes and similar fittings

The master of a ship must ensure that each cover and valve of any ash chute, rubbish chute or similar fitting that has an inboard opening below the margin line of the ship is kept closed and secured when not in use.

This is a penal provision.

64 Testing and periodic operation of openings

64.1 The master of a ship must ensure that the following items fitted on the ship are tested in accordance with subsection 64.2:

(a) watertight doors;

(b) sidescuttles;

(c) the valves and closing mechanisms of scuppers;

(d) ash chutes;

(e) rubbish chutes;

(f) the means of communication for doors that cannot be closed from a central control station.

64.2 Each item that a Marine Order does not require to be closed when a ship is at sea must be tested to ensure it operates correctly:

(a) at least once every week; and

(b) if the voyage is to exceed 7 days — immediately before the voyage commences; and

(c) for a ro-ro passenger ship — immediately before leaving port.

This is a penal provision.

64.3 The master of a ship must ensure that the opening and closing operation of each watertight door fitted in a transverse watertight bulkhead that must be open for the working of the ship is tested daily.

This is a penal provision.

64.4 The master may carry out the test mentioned in subsection 64.3 in port before departure of the ship.

65 Periodic inspection

65.1 The owner of a ship must ensure that each of the following appliances and fittings are marked with instructions on how to operate them safely and effectively:

(a) any watertight door;

(b) any mechanism, indicator or warning device for a watertight door;

(c) the means of communication for any watertight door that cannot be closed from a central control station;

(d) any valve required for the operation of damage-control cross-connections or for ensuring the watertight integrity of any space within the ship.

This is a penal provision.

65.2 The master of a ship must ensure that the appliances and fittings mentioned in subsection 65.1 are inspected at least once a week.

This is a penal provision.

66 Official log-book entries

66.1 The master of a ship must ensure that, before the ship starts a voyage, the following information is recorded in the official log-book:

(a) the time of the last closing of a door mentioned in subsection 61.1; and

(b) the time of the opening of a door mentioned in subsection 61.5.

Federal Register of Legislative Instruments F2012L02149

66.2 The master of a ship must ensure that the following information is recorded in the official log-book:

(a) the times of the last closing, if any, before the ship goes to sea, and of the next subsequent opening, of the fittings to which sections 60 and 61 apply; and

(b) whether the portable plates mentioned in section 59 are in place when the ship proceeds to sea; and

(c) the time of removal and replacement of portable plates while the ship is at sea; and

(d) for a test or inspection required by section 64 or 65:

(i) the time it is carried out; and

(ii) whether the fittings are in good working order; and

(iii) if they are not — the action taken to put them in good working order.

This is a penal provision.

Subdivision 7.2 Other safety measures

67 Equipment

67.1 The owner of a ship must ensure that the ship has on board the following equipment in good working condition:

(a) for any closing appliance — an indicator system that complies with Schedule 7;

(b) equipment independent of any power supply to enable a good lookout to be kept and to enable the safe navigation of the ship if an electronic system fails;

(c) anchors, chain cables, hawsers and warps that are appropriate for the size and operations of the ship.

67.2 The equipment may include the following:

(a) equipment to enable an adequate lookout to be maintained;

(b) position to be established when out of sight of land (eg sextant, almanac and sight tables or a suitable calculator);

(c) bearings to be observed (eg a correctly adjusted magnetic compass);

(d) other essential measurements and observations (eg atmospheric pressure) to be made.

67.3 For a ship of less than 500 gross tonnage, the master must ensure that the ship has on board flags N and C of the International Code of Signals.

67.4 For a ship of at least 500 gross tonnage, the master must ensure that the ship has on board a complete set of flags of the International Code of Signals.

67.5 Except in an emergency, the master of a ship must not use, or permit to be used, any equipment mentioned in subsection 67.1 that is not in good working condition or that is improperly rigged.

This is a penal provision.

68 Means of access to ships in port

68.1 Access to a ship in port must be carried out in accordance with Schedule 8.

Federal Register of Legislative Instruments F2012L02149

68.2 The master of a ship must comply with subclause 1.9 of Schedule 8.

This is a penal provision.

68.3 A person boarding or disembarking from a ship using a means of access mentioned in Schedule 8 must do so in accordance with Schedule 8.

This is a penal provision.

69 Atmosphere sampling and measuring

An owner of the following ships must ensure that the ship has on board the equipment mentioned in Schedule 9 for the ship:

(a) a ship carrying a cargo likely to deplete the oxygen concentration in a cargo space;

(b) a ship carrying a cargo likely to give off flammable, toxic, corrosive or other chemical gas;

(c) a ship carrying a cargo with inert gas capability;

(d) an Australian ship on which the crew may be required to enter a confined space where the oxygen level may be depleted or where flammable or toxic contaminants may be present.

This is a penal provision.

Federal Register of Legislative Instruments F2012L02149

Schedule 1 Compass deviation book information

(subparagraph 19.1(a)(ii))

Item	Information
1	date
2	ship's position: (a) latitude; and (b) longitude
3	time of observation
4	body observed or method of obtaining true bearing or heading
5	direction of the ship's head by: (a) standard compass; and (b) steering compass
6	direction of the ship's head by gyro compass
7	direction of the ship's true head
8	azimuth or bearing or heading by magnetic compass
9	azimuth/bearing or heading by gyro compass
10	true azimuth or bearing or heading
11	magnetic compass error
12	gyro compass error
13	corrected variation
14	magnetic compass deviation

Schedule 2 Forms

(subsection 19.2)

Form MO — 21/1

Table of deviations of the standard/steering* compass — ship's head by standard/steering compass and corresponding deviation

Head	*Deviation*	*Head*	*Deviation*	*Head*	*Deviation*	*Head*	*Deviation*
000°		**090°**		**180°**		**270°**	
010°		100°		190°		280°	
020°		110°		200°		290°	
030°		120°		210°		300°	
040°		130°		220°		310°	
045°		**135°**		**225°**		**315°**	
050°		140°		230°		320°	
060°		150°		240°		330°	
070°		160°		250°		340°	
080°		170°		260°		350°	

Description, location and size of the correctors

Corrector	*Alignment*	*No.*	*Diam*	*Length*	*To centre of compass system*
Fore and aft magnets	Red end F ☐ A ☐				*from centre of magnets* Port.....Stbd.....cm
Thwartships magnets	Red end P ☐ S ☐				*from centre of magnets* .....cm
Vertical magnets	Red end Up ☐ Down ☐				*from top end of magnets* .....cm
Flinders Bar	F ☐ A ☐ of compass				*from nearest point of corrector* .....cm
Quadrantal correctors	*Type*				*from nearest point of corrector* .....cm

The description of the correctors may include a plan showing their position.

The deviations are obtained by .....

The type of vertical force instrument used is .....

Federal Register of Legislative Instruments F2012L02149

Declaration: I have examined the Standard and Steering* compasses of (insert name of vessel) ,and adjusted the correctors*. The compasses are in good order.*
(* *Delete as appropriate*)

Signed .....

(A licensed compass adjuster - or master of the ship for adjustments to the vertical magnets only)

Name .....

Date ..... Place .....

Schedule 3 IMO resolutions and circulars

(subsection 21.2)

IMO Resolution or Circular Number	IMO Resolution or Circular title	Amendments
GMDSS equipment		
A.694(17)	*General requirements for shipborne radio equipment forming part of the Global Maritime Distress and Safety Systems (GMDSS) and for Electronic Navigational Aids*	
Compass equipment		
A.382(X), Annex II	*Magnetic Compasses Carriage and Performance Standards*	
A.424(XI)	*Performance standards for gyro-compasses*	
MSC.86(70), Annex 2	*Recommendation on performance standards for marine transmitting magnetic heading devices (TMHDs)* *Note* A TMHD installed after 31 December 1999 and before 1 July 2002 must conform to performance standards not inferior to those set out in MSC.86(70), Annex 2.	
MSC.116(73)	*Performance standards for transmitting heading devices (THDs).* *Note* A THD installed after 30 June 2002 must conform to performance standards not inferior to those set out in MSC.116(73) Annex.	
Radar equipment		
MSC.64(67), Annex 4	*Recommendation on performance standards for radar equipment*	
MSC.192(79)	*Adoption of the revised performance standards for radar equipment* *Note* This resolution applies to equipment installed after 30 June 2008.	
A.823(19)	*Recommendation on performance standards for Automatic Radar Plotting Aids (ARPAs)*	

IMO Resolution or Circular Number	IMO Resolution or Circular title	Amendments
Electric Chart Display and Information Systems (ECDIS)		
A.817(19)	*Performance standards for Electronic Chart Display and Information Systems (ECDIS)* *Note* This resolution applies to equipment installed after 30 December 1995 and before 1 January 2009.	MSC.64(67), Annex 5 and MSC.86(70), Annex 4
MSC.232(82)	*Adoption of the revised performance standards for Electronic Chart Display and Information Systems (ECDIS)* *Note* This resolution applies to equipment installed after 30 December 2008.	
Positioning receiving systems		
A.816(19)	*Performance standards for shipborne Decca navigator receivers*	
A.818(19)	*Performance standards for shipborne Loran-C and Chakya receivers*	
A.819(19)	*Performance standards for shipborne Global Positioning System (GPS) receiver equipment* *Note* This resolution applies if GPS receiver equipment was installed before 1 July 2003.	MSC.112(73)
MSC.53(66)	*Performance standards for shipborne GLONASS receiver equipment* *Note* This resolution applies if GPS receiver equipment was installed after 30 June 2003.	MSC.113(73)
MSC.64(67), Annex 2	*Recommendation on performance standards for shipborne DGPS and DGLONASS maritime radio beacon receiver equipment* *Note 1* A shipborne DGPS and DGLONASS installed on or after 1 July 2003, must conform to performance standards not inferior to those mentioned in MSC.114(73), Annex. *Note 2* A shipborne DGPS and DGLONASS installed after 31 December 1998 and before 1 July 2003, must conform to performance standards not inferior to those mentioned in the Annex to MSC.64(67), Annex 2.	MSC.114(73)
MSC.74(69), Annex I	*Recommendation on performance standards for shipborne combined GPS/GLONASS receiver equipment* *Note* MSC.74(69), Annex I applies to a	

IMO Resolution or Circular Number	IMO Resolution or Circular title	Amendments
	GPS/GLONASS receiver installed after 30 June 2003.	
MSC.115(73)	*Adoption of the revised performance standards for shipborne combined GPS/GLONASS receiver equipment* *Note* MSC.115(73) applies to a GPS/GLONASS receiver installed after 30 June 2003.	
MSC.233(82)	*Adoption of the performance standards for shipborne Galileo receiver equipment* *Note* MSC.233(82) applies to a Galileo receiver installed after 31 December 2008.	
Steering control systems		
MSC.64(67), Annex 3	*Recommendation on performance standards for heading control systems* *Note* A heading control system installed after 31 December 1998 must conform to performance standards not inferior to those mentioned in MSC.64(67), Annex 3.	
MSC.74(69), Annex 2	*Recommendation on performance standards for track control systems* *Note* A track control system installed after 31 December 1999 must conform to performance standards not inferior to those mentioned in MSC.74(69), Annex 2.	
MSC.74(69), Annex 3	*Recommendation on performance standards for an universal shipborne Automatic Identification System (AIS)* *Note* AIS installed after 31 December 1999 must conform to performance standards not inferior to those mentioned in MSC.74(69), Annex 3.	
A.526(13)	*Performance standards for rate-of-turn indicators*	
Echo sounding equipment		
A.224(VII)	*Performance standards for echo sounding equipment*	MSC.74(69), Annex 4
Speed and distance measuring equipment		
A.824(19)	*Performance standards for devices to indicate speed and distance*	MSC.96(72); MSC.334(90)

IMO Resolution or Circular Number	IMO Resolution or Circular title	Amendments
	Note 1 A device to measure and indicate speed and distance installed after 30 June 2002, must conform to performance standards not inferior to those mentioned in MSC.96(72), Annex. *Note 2* A device to indicate speed and distance installed after 31 December 1996 and before 1 July 2002 must conform at least to the performance standards mentioned in A.824(19). *Note 3* MSC.334(90) applies to equipment installed after 1 July 2014.	
Automatic Identification Systems (AIS)		
A.917(22)	*Guidelines for the onboard operational use of shipborne Automatic Identification Systems (AIS)*	A.956(23)
Long Range Identification and Tracking (LRIT)		
MSC.263(84)	*Revised performance standards and functional requirements for the long range identification and tracking of ships (LRIT)* *Note* MSC.330(90) applies to equipment installed after 1 July 2014.	MSC.330(90)
Voyage Data Recorders (VDR)		
A.861(20)	*Performance standards for shipborne voyage data recorders (VDRs)* *Note 1* A VDR fitted before 1 June 2008, must conform to performance standards not inferior to those mentioned in A.861(20), Annex. *Note 2* A VDR fitted after 31 May 2008, must also conform to the amendments to performance standards not inferior to those mentioned in MSC.214(81), Annex I.	MSC.214(81)
MSC.163(78)	*Performance standards for shipborne simplified voyage data recorders (S-VDRs)* *Note 1* A S-VDR fitted before 1 June 2008 must conform to performance standards not inferior to those mentioned in MSC.163(78), Annex. *Note 2* A S-VDR fitted after 31 May 2008, must also conform to the amendments to performance standards not inferior to those mentioned in MSC.214(81), Annex 2. *Adoption of revised Performance Standards for Shipborne Voyage Data Recorders (VDRs)* *Note* MSC.333(90) applies to equipment	MSC.214(81); MSC.333(90)

IMO Resolution or Circular Number	IMO Resolution or Circular title	Amendments
	installed after 1 July 2014.	
Bridge design		
A.575(14)	*Unification of performance standards for navigational equipment*	
A.813(19)	*General requirements for Electromagnetic Compatibility (EMC) for all Electrical and Electronic Ship's Equipment*	
MSC.64(67), Annex I	*Recommendation on performance standards for Integrated Bridge Systems (IBS)* *Note* An IBS fitted after 31 December 1998 must conform to performance standards not inferior to those mentioned in MSC.64(67), Annex I.	
MSC.86(70), Annex 3	*Recommendation on performance standards for an Integrated Navigation System (INS)* *Note* An INS installed after 31 December 1999 must conform to performance standards not inferior to those mentioned in MSC.86(70), Annex 3.	
MSC.252(83)	*Adoption of the revised performance standards for Integrated Navigation Systems (INS)* *Note* An INS installed after 31 December 2010 must conform to performance standards mentioned in MSC.252(83).	
MSC.128(75)	*Performance standards for a Bridge Navigational Watch Alarm System (BNWAS)* *Note* A BNWAS installed after 30 June 2003 must conform to performance standards not inferior to those mentioned in MSC.128(75), Annex.	
MSC/Circ.982	*Guidelines on ergonomic criteria for bridge equipment and layout*	
Sound reception systems		
A.343(IX)	*Recommendation on methods of measuring noise levels at listening posts*	
MSC.86(70), Annex I	*Recommendation on performance standards for sound reception systems*	

IMO Resolution or Circular Number	IMO Resolution or Circular title	Amendments
Signalling equipment		
MSC.95(72)	*Performance standards for daylight signalling lamps*	

Schedule 4 Emergency drill procedures

(subsection 55.8)

1 Emergency drill

1.1 On the general emergency alarm signal, each crew member must immediately assemble at his or her emergency station, unless the master orders the crew member to continue with his or her immediate duties.

1.2 Emergency parties must be trained and practised in the emergency duties assigned to them by the master.

1.3 When the master is satisfied with the emergency drill, he or she may give the prepare to abandon ship signal.

1.4 When the prepare to abandon ship signal is given, each crew member must muster at the survival craft to which he or she is allocated.

1.5 The person in charge of each survival craft must do the following:

(a) call the roll of persons assigned to the survival craft;

(b) be satisfied that each person assigned to the craft understands the duties given to him or her for launching and boarding the craft;

(c) be satisfied that each person assigned to the craft is correctly wearing a lifejacket;

(d) instruct and examine each person assigned to the craft in accordance with the *Survival at Sea Manual* published by AMSA;

(e) report to the master the total number of persons, including the person in charge, at the survival craft;

(f) report to the master when the drill is complete.

1.6 For a passenger ship, each member of the crew allocated duties in connection with marshalling and mustering passengers must take his or her assigned place in:

(a) a stairway; or

(b) a passageway; or

(c) a muster station.

1.7 For a passenger ship, a person in charge of, or assisting at, muster stations must:

(a) instruct and assist each passenger to correctly put on a lifejacket; and

(b) advise passengers on the procedures for abandoning ship, including telling them that:

(i) the ship is the safest refuge unless it is sinking; and

(ii) conditions may occur when it is necessary to evacuate every passenger from the ship; and

(iii) the crew will be with the passengers in their survival craft to take appropriate action and assist the passengers to board rescue ships; and

(iv) report to the master the number of passengers mustered at the muster station.

1.8 After the muster, the abandon ship practice must be carried out with launching of survival craft as appropriate.

2 Liferaft and marine escape system drills

2.1 A drill is to be carried out in accordance with the ship's safety management system.

2.2 When a fire-protected boat is lowered into the water, the water spray system on the boat is to be tested.

2.3 If a lifeboat drill is held at sea and weather prevents the swinging out and the part lowering of a boat, the boat is to be swung out and partly lowered at the next suitable opportunity.

3 Liferaft and marine escape system drills

3.1 At least 1 liferaft is to be prepared for launching by releasing all securing lashings.

3.2 If a cradle or other device is used to ensure that the liferaft when launched will enter the water clear of the ship, the device is to be tested during or immediately after the drill.

3.3 If a liferaft will be davit launched, the davit is to be tested by hooking on to a liferaft, if practicable without disturbing the waterproofing of the liferaft container.

3.4 After unhooking the container, the davit must be swung out and secured in the lowering position.

3.5 A small weight may be attached to the fall to check the lowering and braking capability of the davit and winch.

3.6 If a ship has more than 1 davit, all davits are to be tested at least every 3 months.

3.7 A liferaft is to be inflated and the crew given instruction in the use of the equipment and the maintenance of the liferaft at least every 6 months at a suitable place, including:

(a) on board the ship; or

(b) on the wharf adjacent to the ship; or

(c) at the liferaft service station; or

(d) at a training establishment; or

(e) at a swimming pool if the instruction is to be combined with practical training in righting and boarding the raft.

3.8 The liferaft may be:

(a) a spare raft; or

(b) a demonstration raft supplied by a liferaft service station or training establishment.

3.9 If a ship is fitted with a marine evacuation system, drills must include:

(a) carrying out the procedures required for deployment of the system; and

(b) regular instruction using on board training aids.

3.10 Each member of a party assigned to a marine evacuation system must participate in training on board the ship or on shore, of the full deployment of the marine evacuation system into water, at least once every 3 years.

4 Testing of power supplies

4.1 The main and emergency lighting at the following places on the ship must be tested:

(a) all muster and survival craft stations;

(b) alleyways, stairways, emergency exits;

(c) accesses to all muster and survival craft stations.

4.2 The emergency power supply to the following equipment on the ship must be tested:

(a) the ship's whistle or siren;

(b) general alarm bell system;

(c) public address system, if fitted.

5 Fire drill

A fire drill must be carried out as follows:

(a) the officer in charge of the drill must order an attack on a mock fire on the ship;

(b) on the fire signal or warning in the engine room, the fire pumps must be prepared by the engineers on the muster list;

(c) each member of the crew forming the fire party must go to the location of the mock fire;

(d) at the mock fire:

(i) fire hoses must be laid out; and

(ii) at least 2 fire hoses must be connected to the hydrants and tested at full pressure, with water being supplied from the main fire pumps; and

(iii) the fire extinguishers must be unshipped; and

(iv) any isolating valves fitted in the fire main must be shut and opened to test the valves operation; and

(v) for a cargo ship — at every second fire drill, the water is to be supplied from the emergency fire pump;

(e) at least once in each consecutive 3 months — a practical demonstration of the use of the portable fire extinguishers must be given by expending the charge of at least 1 extinguisher;

(f) the crew must practise closing openings on the ship to reduce the supply of air to the mock fire, including the following:

(i) doors;

(ii) windows;

(iii) ports;

(iv) ventilators;

(v) ventilating shafts;

(vi) stairways;

(vii) lift shafts;

(g) the crew must practice:

(i) using breathing apparatus and safety lamps; and

Federal Register of Legislative Instruments F2012L02149

(ii) rescuing casualties and using stretchers, hoists or other apparatus for the rescue; and

(iii) other emergency drill considered necessary to combat the assumed fire;

(h) the members of the crew forming the fire party must be instructed in the use of all fire-fighting appliances on the ship;

(i) the master should carry out fire drills for fires in the engine room, including:

(i) shutting down ventilation systems to the engine room (although it may be necessary to keep some air inlets open during the drill to supply air to machinery that cannot be shut down at the time of the practice); and

(ii) operating remote shut off arrangements for fuel valves for tanks and fuel pumps, operating different remote shut-offs in rotation so that all, if possible, are operated between crew changes; and

(iii) if a fire on the other side of the bulkhead may hazard the engine — using hoses in the engine room for cooling bulkheads, tanks and other equipment; and

(iv) instructing persons to shut off any electrical machinery before operating fire-hoses; and

(v) the rescue of persons endangered by smoke or gas; and

(vi) moving around the engine room in blackout conditions caused by smoke.

6 Damage control drill

A damage control drill must be conducted in accordance with the ship's safety management system and as follows:

(a) on the emergency signal being given, the officer in charge of the drill must indicate a section of the ship where the mock emergency is happening;

(b) assigned crew members must immediately close the bulkhead doors for the section and report the closure of the doors to the master or to the officer in charge of the drill;

(c) doors that were already closed at the commencement of the drill must be opened and then closed, other than any watertight door or other fitting that is required by sections 57 and 67 to be kept closed;

(d) cross-flooding arrangements must be checked, if it is practical and safe to do so;

(e) members of the crew assigned to sounding duty must immediately sound tanks and bilges in the section of the ship indicated for the drill;

(f) a messenger from the sounding party must communicate with the officer in charge of the drill;

(g) as many pumps as possible that are related to damage control and operated from the engine room must be connected to the section of the ship indicated for the drill;

(h) a report must be made to the command point by messenger or other means when the pumps are ready for action;

(i) if open in port, ship's side doors, sidescuttles, valves and similar fittings must be closed as directed on the muster list;

(j) a report must be made to the bridge by messenger or other means when the side doors, sidescuttles, valves and similar fittings have been closed.

7 Recovery of lifeboats used as rescue boats

For a lifeboat that is approved for use as a rescue boat, the owner must ensure that:

(a) it is capable of being recovered safely after use as a rescue boat; and

(b) training is carried out at each statutory launching of the lifeboat; and

(c) the instructions are compatible with the particular arrangements on each ship, and documented in the ship's safety management system.

8 Helicopter drills

8.1 Drills should be carried out on ships that transfer persons by helicopter, whether or not the helicopter lands on the ship, as necessary to ensure the crew are trained in:

(a) normal procedures relating to the transfer of persons; and

(b) emergency procedures for a helicopter crash or fire.

8.2 The training procedures should be in accordance with the ship's safety management system and *Marine Orders, Part 57 (Helicopter operations).*

Schedule 5 Passengers' muster stations

(paragraph 56.2(b))

Name of ship

Cabin berth or lounge seat no.	*Muster station*

General emergency alarm signal

The general emergency alarm signal is at least 7 short blasts followed by 1 long blast on the ship's whistle or siren. This must be repeated on the general alarm bell system, and may be supplemented by instructions on the public address system.

WHEN YOU HEAR THE GENERAL EMERGENCY ALARM SIGNAL, GO DIRECTLY TO YOUR MUSTER STATION.

FOLLOW ANY INSTRUCTIONS GIVEN ON THE PUBLIC ADDRESS SYSTEM, THEN GO TO YOUR MUSTER STATION.

The general emergency alarm signal is a signal to passengers that there is an emergency that may result in abandonment of the ship. The crew will deal with the emergency. IT IS NOT A CAUSE FOR PANIC.

Passengers will be further instructed when the emergency is assessed. Further instructions for passengers may include the following:

(a) to return to their cabins to pick up warm clothing;

(b) to put on lifejackets;

(c) to go to a restaurant for a meal.

DO NOT RETURN TO YOUR CABIN UNLESS YOU ARE INSTRUCTED TO BY A CREW MEMBER

..... *(Master)* ..... *(Date)*

Schedule 6 Crew emergency stations list

(paragraph 56.6(a))

Name of ship

Crew member identification	*Emergency station*	*Emergency duty*	*Survival craft*

General emergency alarm signal: 7 or more short blasts followed by 1 long blast on the ship's whistle or siren. This will be repeated on the general alarm bell system, and may be supplemented by instructions on the public address system.

WHEN YOU HEAR THE GENERAL EMERGENCY ALARM SIGNAL, GO DIRECTLY TO YOUR EMERGENCY STATION.

IF THERE ARE ANY INSTRUCTIONS GIVEN ON THE PUBLIC ADDRESS SYSTEM, OBEY THESE INSTRUCTIONS.

Prepare to abandon ship signal: AAA in Morse on the whistle (short, long, short, long, short, long) and repeated on the general emergency alarm bell system, also 'finished with engines' on the E/R telegraph. On hearing or seeing this signal, all isolated parties are to cease their current activities and go as quickly as possible to the boat deck.

Abandon ship signal: [as determined by the master.] It will normally be given by word of mouth from the master or senior surviving officer.

..... *(Master)* ..... *(Date)*

Schedule 7 Indicator system for a closing appliance

(paragraph 67.1(a))

1 Visual indicators

1.1 The indicator system must include the number of visual indicator sets necessary to ensure that:

(a) a set is located in the navigation area of the ship and is clearly visible to the person navigating the ship; and

(b) a set is located near the controls for operating the closing appliance and is clearly visible to the person operating the closing appliance; and

(c) if the securing mechanism for a closing appliance is power operated, a set is located near the power controls for operating the securing device and is clearly visible to the person operating the controls.

Note For additional requirements for passenger ships with ro-ro cargo spaces or special category spaces — see Regulation 23.2 of Chapter II-1 of SOLAS.

1.2 Each set of visual indicators must:

(a) have at least 2 indicators; and

(b) be clearly and permanently labelled indicating:

(i) the closing appliance to which it relates; and

(ii) the indicator that operates when the closing appliance is 'closed and secured'; and

(iii) the indicator that operates when the closing appliance is 'unsecured'.

1.3 The visual indicator indicating when a closing appliance is 'closed and secured' must only operate when the closing appliance is closed and secured.

1.4 The indicator indicating when a closing appliance is 'unsecured' must only operate when the closing appliance is:

(a) open; or

(b) closed but not secured.

1.5 If a set of visual indicators consists of electric lamps, the lamps must be:

(a) incapable of being dimmed to a level so that they are ineffective; and

(b) incapable of being extinguished independently of the indicator system.

2 Aural alarms

2.1 The indicator system must have an aural alarm near each set of visual indicators.

2.2 If at least 2 sets of visual indicators for at least 1 closing appliance are next to each other then only 1 aural alarm is required.

2.3 An aural alarm must be incapable of being isolated from the indicator system.

2.4 An aural alarm must automatically sound if the closing appliance it is for opens.

2.5 The alarm must continue sounding until:

(a) the closing appliance to which it relates is closed and secured; or

(b) it is manually turned off.

2.6 If a ship is being prepared for or is engaged on a voyage, any aural alarm must be clearly audible above the maximum sound level for the part of the ship it is in.

2.7 An aural alarm must not have a device for adjusting the volume or tone of the alarm.

3 Indicator actuators

3.1 A set of visual indicators with aural alarms must be actuated by:

(a) for a closing appliance fitted with power operated securing devices that operate in a fixed predetermined sequence — at least 1 indicator actuator; or

(b) for any other closing appliance — at least 2 widely spaced actuators sufficient to indicate accurately if the closing appliance is closed and secured, or not.

3.2 If more than 1 indicator actuator is fitted to a closing appliance, each actuator must operate before visual indicators indicate that the closing appliance is closed and secured.

3.3 Cable, piping and other material connecting an indicator actuator to a set of visual indicators or to an aural alarm must be positioned to prevent mechanical or other damage to the indicator system.

4 Component standards

Each component of an indicator system must be:

(a) suitable for use in a marine environment; and

(b) constructed to ensure the operating capability of the component is not affected by likely changes in temperature or other climatic conditions; and

(c) constructed to ensure that the component is capable of reliable operation over the range of vibrations to which the component is likely to be subjected; and

(d) if the component is likely to be exposed to water, constructed to ensure that the operating capability of the component is not affected by water.

Schedule 8 Means of access to ships in port

(subsections 68.1, 68.2 and 68.3)

1 Safe means of access

1.1 The master of a ship in port must ensure that the means of access to the ship provided by the master for persons boarding or disembarking from the ship is safe and complies with:

(a) section 67 of this Order; or

(b) Regulation 3-9 of Chapter II-1 of SOLAS and IMO Circular MSC.1/Circ.1331.

Note Regulation 3-9 of Chapter II-I of SOLAS is adopted by IMO resolution MSC.256(84).

1.2 If a means of access is provided by a port authority or other person, the master must take measures to ensure that any safety concern has the attention of:

(a) the person providing access; and

(b) a person requiring access to or from the ship.

1.3 If access is provided between 2 adjacent ships lying alongside, the master of the ship with the higher weather deck must ensure that the means of access between the ships is safe.

1.4 The master of a ship must ensure that the means of passage between a ship's deck and the upper end of a gangway resting on a bulwark or side rail of the ship is a bulwark ladder with handrails.

Note A bulwark ladder is a set of substantial steps designed to allow a person safely to ascend to or descend from the top of a ship's bulwark or side rail.

1.5 If the master of a ship at anchor or at a mooring considers that the use of an accommodation ladder is impracticable, he or she:

(a) may provide a pilot ladder as a means of access to or from the ship; and

(b) must ensure that the only persons using the ladder are pilots and other persons on the business of the ship; and

(c) may allow any person to use the ladder in an emergency.

1.6 A cargo access ramp may be used as a means of access to and from a ship in the following circumstances:

(a) a non-slip surface is provided and marked for pedestrian use;

(b) the sides of the ramp have guard rails or equivalent arrangements to prevent pedestrians from falling from the ramp;

(c) either:

(i) the pedestrian area is effectively and protectively separated from the vehicular area; or

(ii) pedestrians are permitted to use the ramp only when the ramp is not in use by vehicles.

1.7 A person boarding or leaving a ship must use the means of access provided by the master or identified by the master.

1.8 If a surveyor considers that a means of access to or from a ship does not comply with this Order, he or she may give written notice to the master:

(a) prohibiting the use of the means of access; and

(b) stating the action the master must take to ensure compliance with this Order.

1.9 A master receiving a notice under subclause 1.8 must ensure that the means of access is not used until the action required by paragraph 1.8(b) is complete.

2 Requirements

2.1 A safe means of access to or from a ship must be the following:

(a) of sufficient strength to support the weight placed on it;

(b) clean and free of damage, degradation or wear that may affect the strength of the means of access;

(c) secured to prevent accidental displacement;

(d) illuminated sufficiently for people to use it safely at night;

(e) clear of the path of cargo being loaded or unloaded from a ship;

(f) kept clean and free of any material that could make its use unsafe;

(g) properly rigged and adjusted to allow for any changes in tidal levels and the ship's trim and freeboard;

(h) at an angle allowing safe access to the ship;

(i) firmly landed and clear of wharf edge and other potential hazards.

2.2 A gangway may be placed on a bulwark or side rail of a ship only if the bulwark or side rail is of sufficient strength to bear the weight of the gangway and persons using it.

2.3 A telescopic accommodation ladder may be used as a means of access only if its sections are locked together to prevent variation in length.

2.4 The master must take reasonable and practical measures to protect persons from injury caused by falling from an accommodation ladder or a gangway, including using safety netting.

2.5 Safety netting must protect the length of the accommodation ladder or gangway, including protecting the user from falling between the ship and the quayside.

3 Accommodation ladders

3.1 An accommodation ladder:

(a) may be single-flight, multi-flight or telescopic; and

(b) if it is multi-flight — must have any intermediate platforms self-levelling and supported so that it remains horizontal in use; and

(c) if it is telescopic — must have the means to allow the ladder sections to be locked together to prevent variation in length.

3.2 The upper end of an accommodation ladder must be hinged from a fixed or revolving platform that is secured to the ship and supported so that it remains horizontal in use.

Federal Register of Legislative Instruments F2012L02149

3.3 The lower end of an accommodation ladder must be fitted with a platform that is supported so that it remains horizontal in use.

Note It is recommended that the lower end of an accommodation ladder resting on a wharf in use, is fitted with wheels or rollers to enable free movement.

3.4 The sides of every platform, except access openings, must be fenced in accordance with subclause 3.7.

3.5 The treads of an accommodation ladder must:

(a) be at least 550 mm in clear width; and

(b) have a non-slip surface of sufficient depth to avoid clogging; and

(c) be spaced at suitable and equally spaced intervals; and

(d) subject to paragraph (b) — be of a shape and design that gives a person using it a flat or curved surface to step on.

3.6 If a ship constructed before 25 May 1980 has an accommodation ladder with fixed flat treads and a person using it has to step on a corner edge of the tread, the ladder must be securely fitted with cleated duckboards.

3.7 An accommodation ladder must be fenced on each side of its entire length with upper and intermediate side rails.

3.8 The height of a side rail must be measured from the surface of the treads, perpendicular to the longitudinal axis of the ladder.

3.9 Side rails must not be more than 0.61 m apart and the upper rail must be at a height of at least 1.07 m.

3.10 However, for a ship that is not registered in Australia, a surveyor may permit the use of a side rail that does not comply with subclause 3.8 if the surveyor thinks that it provides adequate protection.

3.11 A side rail may be a fixed rail or a taut rope or chain.

3.12 Any covering material used on a rope or chain must be capable of removal to allow inspection of the condition of the rope or chain.

3.13 Side rails must be supported by stanchions spaced not more than 2 m apart.

3.14 The stanchions must be fitted with a locking device to prevent accidental dislodgment.

4 Gangway

4.1 A gangway must:

(a) have a closely boarded walkway, at least 550 mm in clear width, that is fitted with transverse treads at suitable and equally spaced intervals; and

(b) be fenced on each side of its entire length with upper and intermediate side rails that comply with clause 4; and

(c) if a derrick or crane is needed to position or stow it — must have lifting attachments that balance it while it is freely suspended.

4.2 The upper end of a gangway must be fitted with suitable means to secure it effectively to a ship.

Note The lower end of a gangway should be fitted with wheels or rollers to ensure free movement when resting on a wharf.

5 Safety net

5.1 The owner of a ship must ensure that a safety net:

(a) is of adequate length and width; and

(b) has apertures of its mesh not more than 190 mm, measured between opposite knots when the mesh is hung or cut to make it square mesh; and

(c) is made of framing rope and netting, with at least 400 kgwt and 125 kgwt breaking strain, resistant to actinic degradation.

5.2 The master of a ship must ensure that a safety net:

(a) is secured in position at each corner, and intermediate points if required, by suitably secured lengths of framing rope; and

(b) has the corners of its mesh properly secured to prevent movement.

Federal Register of Legislative Instruments F2012L02149

Schedule 9 Atmosphere sampling equipment, measuring equipment and related procedures

(section 68)

1 Portable gas detectors

1.1 The following ships must have a portable gas detector:

(a) an oil tanker;

(b) a chemical tanker;

(c) a gas carrier;

(d) a cargo ship carrying any substance that may give off combustible gases;

(e) a ship that carries a substance likely to deplete the oxygen concentration in a space;

(f) a ship where a person may have to enter a confined space.

1.2 The gas detector must meet the standards mentioned in Table 1.

Table 1 Gas detector standards

Performance requirements	Installation, use and maintenance requirements
(a) AS/NZS 60079.29.1:2008 — *Explosive atmospheres —Gas detectors – Performance requirements of detectors for flammable gases*; or (b) IEC 60079-29-1 Ed. 1.0. *Gas detectors —Performance requirements of detectors for flammable gasses*	(c) AS/NZS60079.29.2:2008 *Gas detectors — selection, installation, use and maintenance of detectors for flammable gases and oxygen*; or (d) IEC 60079-29-2 Ed 1.0 *Gas detectors — selection, installation, use and maintenance of detectors for flammable gases and oxygen*

1.3 The gas detector must indicate:

(a) the percentage of oxygen by volume in the sample tested; and

(b) the combustible gas concentration as a percentage of the lower explosive limit (***LEL***) or lower flammable limit (***LFL***).

2 Cargo spaces on tankers with inert gas capability

2.1 The following ships must have a portable gas detector capable of accurately measuring hydrocarbon percentage by volume in an inert atmosphere:

(a) an oil tanker with inert gas capability;

(b) a chemical tanker with inert gas capability;

(c) a liquefied gas carrier.

2.2 The owner of a ship with a flue gas generated inert gas system must ensure that the gas detector is designed to operate in inert gas containing a high proportion of carbon dioxide.

3 Detection of other gases

3.1 The following ships must carry the equipment and information mentioned in subclause 3.2:

(a) a ship carrying cargo that may give off toxic, corrosive or other gases; and

(b) a ship where persons may enter a confined space that may contain toxic, corrosive or other gases.

3.2 The equipment and information required is:

(a) an instrument or instruments, with instructions for use, capable of detecting those gases and indicating their proportions, either as a direct reading of parts per million (ppm), or milligrams per cubic metre (mg/m^3); and

(b) Material Safety Data Sheets completed in accordance with the recommendations of Safe Work Australia.

Note Safe Work Australia was formerly known as the Australian Safety and Compensation Council. The recommendations are in the National Code of Practice for the Preparation of Material Safety Data Sheets, 2nd Edition, [NOHSC:2011(2003)]. The Data Sheets specify exposure standards for the chemical in question, which are in Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)].

4 Operating instructions

4.1 A person using a portable gas detector must have access to the operating manual and maintenance instructions supplied by the manufacturer.

4.2 A person using or maintaining the equipment must ensure the use or maintenance is in accordance with the manufacturer's instructions and Australian Standard AS/NZS 60079.29.1:2008 — *Explosive atmospheres — Gas detectors — Performance requirements of detectors for flammable gases*.

Note For further information — see Schedule H of AS 2865:2009—Confined Spaces.

5 Recalibration

Each portable gas detector must be recalibrated in accordance with the manufacturer's instructions:

(a) at least annually; or

(b) if the manufacturer's instructions require a more frequent interval — at those intervals.

6 Responsibilities

6.1 The owner of the ship must ensure that the following are carried on board the ship:

(a) the correct gas detector for the ship type;

(b) sampling lines, filters, and spare parts in sufficient quantities for taking accurate measurements of the gas concentration or makeup in the atmosphere being tested.

6.2 The owner of the ship must give appropriate instructions and procedures for safe working conditions, including the following:

(a) the percentage of oxygen;

(b) the percentages of LEL or LFL;

(c) the percentages of hydrocarbons;

(d) the proportions of toxic, corrosive or other harmful gases.

6.3 The owner of the ship must ensure that a person using a portable gas detector is trained in the correct use of the instrument.

6.4 The master of a ship must ensure that the atmosphere in a space is tested by a trained person to assess its safety, if the space has the following characteristics:

(a) the space may contain toxic, corrosive or other harmful gases;

(b) the space may have an oxygen deficiency;

(c) the space may have an operation carried out in it that is hazardous, eg gas freeing;

(d) the space is a confined space that a person is to enter.

Note

1. All legislative instruments and compilations are registered on the Federal Register of Legislative Instruments kept under the *Legislative Instruments Act 2003.* See http://www.frli.gov.au.