

Australian Transport Council

National Standard
for
Commercial Vessels

PART E
OPERATIONAL PRACTICES

Edition 1

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FOREWORD

Part E of the National Standard for Commercial Vessels replaces Section 15 of the Uniform Shipping Laws Code (USL Code). It also replaces certain other references to operational requirements found throughout the USL Code.

In reviewing the USL Code and preparing this Part of the NSCV, consideration was given to:

- a) The goals of the National Marine Safety Strategy.
- b) Changes to the nature of the domestic commercial fleet.
- c) Provisions in the USL that were out of date or no longer used.
- d) Current practices in marine safety and operations.
- e) Developments in management practices.
- f) Relevant national and international standards.
- g) Australian OH&S requirements.
- h) Current format and style of standards.

This Part of the National Standard for Commercial Vessels is intended to be read in conjunction with Part A—Safety Obligations and Part B—General Requirements.

Drafting of this Part of the NSCV was commenced in 1998 by the NMSC Secretariat in consultation with the Industry Advisory Panel. A public workshop was held in Brisbane 2001¹ to canvas industry and government views on the approach to operational practices and management. A reference group comprising industry and government representatives was subsequently formed and reviewed drafts of this Part through its development phase.

The draft for public comment was released on 19 January 2004, along with a draft regulatory impact statement. A reference group comprising industry and government reviewed the public comment on 22 July 2004, with NMSC approving the final draft on 21 October 2004. The Office of Regulation Review confirmed that the final RIS complied with COAG on 21 October 2004.

This Part was endorsed by the Australian Transport Council on 19 November 2004.

This document was first published as an on-line PDF in December 2004 again on CD in April 2005. There were no amendments to the standard between publications.

¹ NMSC (Oct 2001) *National Standard for Commercial Vessels Part E – Proceedings of the workshop on Operation Practices* (CD)

BACKGROUND

The National Standard for Commercial Vessels (NSCV) provides an integrated safety system, combining a vessel's technical characteristics, operator competencies and operational procedures to control risk. This Part, Part E, specifies operational requirements, emergency procedures, and essential elements of a safety management system.

The responsibility for ensuring that a vessel is managed in such a way so as to operate safely is shared between all stakeholders that exercise control over the vessel including the appropriate authority, owners, employers, masters and crew. Guidance on general safety obligations under law is contained in Part A of the National Standard for Commercial Vessels.

Part E provides safety solutions for the major generic types of risks associated with operating a vessel. These solutions should only be considered as providing a minimum base standard of operational safety.

Statistical evidence indicates that human error contributed to around 80 percent of all accidents at sea. It could also be argued that acts of omission play some part in virtually every accident including those where structural or equipment failure may be the immediate cause.²

This Part aims to reduce the likelihood of accidents occurring and minimise their consequences when they do occur. The requirements for safety management systems in Chapter 4 may be adapted to fulfil safety obligations under other law such as Occupational Health and Safety.

Safety management systems provide a management tool to reduce the potential for poor human decisions that contribute either directly or indirectly to a casualty incident. Key elements of such a system are provisions to ensure that all people involved are properly trained, have access to information, and are equipped to carry out their duties safely. Further, since decisions on shore by owners can be as important as those taken at sea, the safety management system specifies requirements for owners and managers to ensure that they establish and maintain a central pro-active role in the management of safety on a vessel.

The capability of vessels, the situations in which they operate, their management and ownership arrangements, their equipment and machinery installations and the tasks on which they are employed vary so much that only the minimum requirements can be specified within this Part. Additional measures not required by this standard may be needed to provide a system for adequate safety on an individual vessel.

This Part is divided into four chapters:

² International Shipping Federation (ISF) and International Chamber of Shipping (1994) – *Guidelines on the application of the IMO International Safety Management Code.*

- Chapter 1—Preliminary
- Chapter 2—Operational Practices
- Chapter 3—Emergency Planning and Preparedness
- Chapter 4—Safety Management of Vessels

Chapter 2 is applicable to controlling risks encountered during normal conditions of operation. Chapter 3 is applicable to controlling risks encountered during abnormal (emergency) conditions of operation. Chapter 4 provides an integrated management system that incorporates the functions of Chapters 2 and 3 within a structured approach that is consistent with auditable quality management practices.

Part E draws heavily on the lead of the international shipping community and the introduction of safety management systems required by the International Maritime Organization's International Safety Management Code (ISM Code). Similar management systems are now being widely introduced in the fields of food quality, export certification, occupational health and safety, and in the wider community for quality management. Where a marine safety management plan is required, it may be integrated with other management plans as a complete system for the management of a vessel. It is not intended that marine safety management plans be in addition to other management plans.

Part E differs from Chapter 15 of the USL Code in a number of ways. For example the USL Code contained considerable detail on the frequency and manner of conducting emergency drills, which in general were not enforced by authorities and were ignored by industry. This level of prescription has not been included in Part E of the NSCV. In the case of drills, these should be part of the plan for emergency preparedness.

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CHAPTER 1 PRELIMINARY

1.1 SCOPE

This Part of the NSCV specifies minimum requirements for the safe operation of domestic commercial vessels in Australia.

It shall be read in conjunction with NSCV Part B—General Requirements. It is recommended that it should also be read with Part A—Safety Obligations and Part D—Crew Competencies.

NOTE: Part A—Safety Obligations provides guidance on obligations that may not be fulfilled by compliance with this standard alone.

Additional operational requirements may be found in other Parts of this National Standard.

1.2 OBJECTIVE

The objective of this Part is to reduce risk on board vessels by promoting the development of an on-board safety culture. It provides a framework for operational safety systems to help the user identify hazards, analyse risks, and put in place measures that eliminate, minimise or control those risks.

1.3 APPLICATION

This Part shall apply to all vessels, other than those provided for in NSCV Part F—Special Vessels, unless Part F specifies otherwise.

Chapter 4 is informative for all vessels unless made mandatory by enabling legislation.

1.4 REFERENCED DOCUMENTS

The following documents are referenced in this Part of the NSCV. Any document referenced should be considered to be the latest revision of the document, including amendments, unless stated otherwise.

AUSTRALIAN TRANSPORT COUNCIL

National Standard for Commercial Vessels (NSCV)

PART A—Safety Obligations

PART B—General Requirements

PART C—Design and Construction

Section 4—Fire Safety

Section 7—Equipment

PART D—Crewing and Competencies

NATIONAL MARINE SAFETY COMMITTEE

National Marine Guidance Manual

Guidelines for On board Safety Training—Australian Domestic Vessels

National Marine Safety Data Collection Reference Manual—Data Standards and Definitions for Marine Incidents

STANDARDS AUSTRALIA

AS 3806—*Compliance programs*

AS 3846—*The handling and transport of dangerous cargoes in port areas*

AS 4801—*Occupational health and safety management—Specification with guidance for use*

AS/NZS 4360—*Risk management*

AS/NZS ISO 9001—*Quality management systems—Requirements*

AS/NZS ISO 14001—*Environmental management systems—Specification and guidance for use.*

AUSTRALIAN MARITIME SAFETY AUTHORITY

Marine Orders Part 21—*Safety of Navigation and Emergency Procedures*

Marine Orders Part 28—*Operations Standards and Procedures*

Marine Orders Part 30—*Prevention of Collisions*

Marine Orders Part 58—*International Safety Management Code*

Marine Orders Part 61—*Safe working on board ships*

INTERNATIONAL MARITIME ORGANIZATION

COLREG—*International Regulations for Preventing Collisions at Sea Guidelines on Fatigue*

IMDG Code—*International Maritime Dangerous Goods Code*

ISM Code—*International Safety Management Code*

MARPOL 73/78—*The International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978*

Ships Routing Manual

SOLAS—*International Convention for the Safety of Life at Sea*

STCW-95—*International Convention on Standards of Training, Certification and Watchkeeping for Seafarers*

1.5 DEFINITIONS

For the purposes of this Part of the NSCV—

- a) the definitions provided in Part B of the NSCV, in addition to those in this Clause, shall apply; and
- b) where there is any duplication in the terms defined between this Clause and Part B, the definitions in this Clause shall apply.

assembly station—

a space on the vessel designated for assembly of persons in the event of an emergency or incident.

NOTE:

1. The word assembly has been adopted to replace the word muster in line with international usage.
2. The design requirements for an assembly station will be identified in NSCV Part C

berthed—

those persons on board the vessel, including crew, passengers and any other persons, for whom provision is made to sleep on board the vessel or who have an expectation to sleep on board the vessel.

NOTE: A person does not have to be provided with a berth to be berthed. It is sufficient that a person is expected to find a place to sleep and may wake up from sleep in an emergency situation.

distress signals—

internationally or nationally recognised signals for indicating distress, an emergency or danger.

emergency station—

a pre-assigned location, responsibility and/or action undertaken by a crew member in response to, or in preparation for, an emergency.

NOTE: See Clause 3.9, and Annex E for an example of an emergency station list.

emergency preparedness training—

training aimed at developing and maintaining proficiency in emergency procedures.

high-risk vessel—

a vessel that is considered to have a greater potential, when compared to other vessels, to cause environmental damage, serious injury, or death through either the nature of its operations or as a result of a marine incident (e.g. Class 1 passenger vessels, tankers, vessels carrying dangerous goods, or high speed craft).

marine incident—

an event causing or involving any of the following in connection with the operation of a vessel:

- a) The death of, or serious injury to, any person on board a vessel, or caused by a vessel.
- b) The loss of a person from a vessel.
- c) The abandonment, loss or presumed loss of a vessel.
- d) The collision of a vessel with another vessel, or with an object.
- e) The grounding, sinking, flooding or capsizing of a vessel.
- f) A fire or explosion on board a vessel.
- g) Loss of stability affecting the safety of a vessel.
- h) Structural failure of a vessel.

NOTE: This definition comes from NMSC's National Marine Safety Data Collection Reference Manual

In addition, an event posing a threat of, or resulting in pollution to the environment shall be considered a marine incident for the purposes of this Part.

Safety Management System (SMS)—

a structured and documented system for the implementation of a vessel's safety and environmental protection policy and plan.

NOTE: The minimum requirements for a vessel's safety management system are described in Annex A of this Part.

serious injury—

an injury requiring admission to hospital. It does not include attendance at a hospital emergency room or medical practice for medical treatment.

NOTE: This definition reflects the definition in NMSC's National Marine Safety Data Collection Reference Manual

trading vessel—

a Class 1 or Class 2 vessel (see NSCV Part B).

user level maintenance—

maintenance of equipment that can be, or has to be, carried out by members of the crew (often a requirement of the manufacturer).

1.6 ABBREVIATIONS

Colregs—

International Regulations for Preventing Collisions at Sea

EPIRB—

Emergency Position Indicating Radio Beacon

IMO—

International Maritime Organization

ISM Code—

International Safety Management Code

NSCV—

National Standard for Commercial Vessels

SOLAS—

International Convention for the Safety of Life at Sea

SMS—

Safety Management System

USL Code—

Uniform Shipping Laws Code

CHAPTER 2 OPERATIONAL PRACTICES

2.1 SCOPE

This Chapter specifies requirements for operational practices on vessels.

2.2 APPLICATION

This Chapter applies to all vessels.

2.3 OBJECTIVE

The objective of this Chapter is to ensure that vessels are operated in a manner that avoids exposure of the vessel, persons onboard, persons not onboard, and the environment to unacceptable risks.

REQUIRED OUTCOMES

2.4 AVOIDANCE OF UNNECESSARY RISKS

A vessel must be operated to avoid unnecessary risk and to minimise risks that cannot be avoided.

2.5 MAINTENANCE OF ESSENTIAL SAFETY SYSTEMS

Systems on board the vessel that are essential for safety must be monitored and maintained to ensure their effectiveness and continued operational status.

2.6 RECORDING AND REPORTING OF EVENTS RELEVANT TO SAFETY

Records of events and information relevant to safety must be kept by those that operate the vessel and reported to those responsible for the safety management of the vessel.

DEEMED-TO-SATISFY SOLUTIONS

2.7 COMPLIANCE

For the purposes of this National Standard Class 1A and Class 2A vessels shall be deemed-to-satisfy the required outcomes in Clause 2.4 to Clause 2.6 if they comply with Marine Orders Part 21, 28, 30 and 61.

All other vessels shall be deemed to satisfy the required outcomes of Clause 2.4 to Clause 2.6 if they comply with—

- a) Clause 2.8 to 2.11 of this Part; or
- b) Marine Orders Part 21, 28, 30 and 61.

2.8 AVOIDANCE OF UNNECESSARY RISK AND REDUCTION OF UNAVOIDABLE RISK

2.8.1 Initial safety training for crew

Each crew member, as soon as practicable after joining a vessel, shall be given a safety induction that adequately familiarises them with safety

matters concerning their presence and duties on board the vessel, including:

a) Operational procedures.

NOTE: When training crews in their operational procedures and safety there is a need to address their occupational health and safety obligations.

b) Administrative procedures and legal obligations

c) Emergency procedures, including:

i) Their emergency station and emergency station duties. (See Clause 3.10.2.)

ii) The layout, operation, and user level maintenance of safety equipment on the vessel. (See Clause 2.10.1.)

d) Where appropriate, the management of passengers in both normal and emergency situations.

NOTES:

1. Refer to Chapter 3 for further information on emergency preparedness.
2. The NMSC's Guidelines for On board Safety Training – Australian Domestic Vessels provides further guidance on safety training.

2.8.2 Instructions for passengers

On vessels that carry passengers, passengers shall be briefed as soon as practicable after embarkation on any relevant operational or emergency procedures specified in emergency plans developed in accordance with Chapter 3 or procedures developed in accord with Chapter 4.

NOTE: See also NMSC's Guidelines for On board Safety Training – Australian Domestic Vessels

2.8.3 Prevention of collisions

The International Regulations for Preventing Collisions at Sea (Colregs) shall be applied.

NOTES:

1. The Colregs may be adopted with minor local amendments by some authorities.
2. The traffic separation schemes for inshore areas are to be found in the charts published by the RAN Hydrographic Department and state/territory Authorities.

2.8.4 Fatigue

Action should be taken to ensure that fatigue, and the risk from fatigue is minimised.

NOTE: The IMO's Guidelines on Fatigue provides practical guidance on measures to avoid and minimise fatigue. In particular crew rosters should be designed so that they do not cause undue fatigue.

2.8.5 Assistance to persons in distress

A vessel at sea, on receiving a signal from any source that a vessel, aircraft or survival craft is in distress, shall proceed immediately to the assistance of the persons in distress informing them, if possible, that the vessel is doing so.

If it is considered unreasonable or unnecessary to proceed to their assistance, the reason for failing to proceed to the assistance of the persons in distress shall be entered in the vessel's logbook.

The obligation to assist under the provisions of this clause shall cease to exist when advice has been received from a reliable source that another vessel has reached such persons or that assistance is no longer necessary.

A reliable source includes:

- a) The persons in distress.
- b) The search and rescue service or coordination centre.
- c) The Master of the vessel in distress.

2.8.6 False distress signals

Distress signals shall only be used in emergency situations to—

- a) transmit or display a signal for distress;
- b) transmit a prescribed urgency signal; or
- c) send out a danger message.

Other than in an emergency, a person shall not use any flare, rocket, or shell that could be mistaken for a distress signal from a vessel, unless advance permission has been provided by the Authority

EPIRBS shall not be activated for trial or test.

When a distress signal has been accidentally transmitted from a vessel, the Master shall immediately advise the nearest rescue coordination centre of the accidental transmission, and that the vessel is not in danger.

NOTES:

1. Transmission includes signalling distress by radio, satellite, sound, visual or any other means.
2. Different arrangements for the co-ordination of search and rescue exist in each state or territory.

If a person removes an EPIRB from a vessel for purposes other than test or repair, that person shall ensure that the EPIRB is effectively disabled by the immediate removal of each battery. The nature of the disablement shall be noted on the unit.

2.8.7 Danger messages

Any vessel that encounters any of the hazards listed in this clause shall issue a danger message to all vessels in the vicinity and to the nearest rescue coordination centre.

Dangers that shall be reported are:

- a) A dangerous derelict, hazardous floating object, or any other direct danger to navigation.
- b) A tropical storm, or winds of force 10 or above on the Beaufort scale for which no storm warning has been received.
- c) Dangerous ice.

- d) Sub-freezing air temperatures associated with gale force winds causing severe ice accretion on superstructures.
- e) Any other situation that could pose a danger to other vessels in the vicinity.

Annex D to this Part provides guidance on the information to be included in a danger message.

2.9 VARIATIONS TO OPERATIONS

2.9.1 Variations to risk

Where a vessel is undertaking an activity or operation that is different from that normally undertaken by the vessel, or is operating under a special permit, or where the risk has changed for whatever reason, then all operational practices and emergency procedures shall be reviewed and changed accordingly to take into account the changed risk.

2.10 MAINTENANCE OF SYSTEMS ESSENTIAL FOR SAFETY

2.10.1 Fire, safety, communications, navigation and anchoring equipment

Arrangements shall be made to ensure that all fire, safety, communications, navigation, and anchoring equipment specified in Part C Section 4, and Part C Section 7 of this Standard is—

- a) maintained, serviced, stowed and labelled in accordance with Part C of this Standard;
- b) is replaced when no longer serviceable; and
- c) is operational prior to embarking on, and throughout a voyage.

NOTE: Risk management strategies should be put in place for example redundancy for essential equipment. Where necessary the voyage should be terminated if essential equipment fails.

In addition to the safety training in Clause 2.8.1, all crew shall be informed of the location of all safety and emergency response equipment. Crew shall be trained to be competent in the use and user level maintenance of, fire, safety, communications, navigation and anchoring equipment that is relevant to their duties.

2.10.2 Steering

2.10.2.1 Steering gear

Steering gear shall be tested to ensure that it is working correctly—

- a) before getting under way;
- b) when entering an area where navigation demands special caution; and
- c) after prolonged use of the automatic pilot.

All crew involved with the operation of steering gear shall be familiar with its operation and the procedures for changing from one system or position to another where such arrangements are provided.

2.10.2.2 Automatic pilot

When using an automatic pilot an effective look-out shall be maintained at all times.

In areas where navigation demands special caution, the performance of the automatic pilot, when in use, shall be closely monitored for correct performance.

The change over to manual steering shall be able to be effected immediately should a fault in the automatic pilot be detected.

2.10.3 Stability and watertight integrity

2.10.3.1 Stability

After the loading of a vessel is completed and before its departure, the vessel's loading shall be checked to verify it does not exceed the limits specified on the vessel's documentation (i.e. stability book, load lines or specified passenger limits). The stability limits shall be monitored and care taken to ensure they are not exceeded during the voyage.

NOTE: Electronic loading and stability computers may be used.

2.10.3.2 Watertight integrity

Doors and openings critical to the vessel's watertight integrity shall be checked to ensure they are closed prior to departure. Arrangements for the management of those doors and openings while under way shall be identified and implemented.

Unless permission has been granted by a person in authority, watertight doors and hatches shall, other than for access of personnel, be kept shut and secured while the vessel is underway.

2.11 RECORDING AND REPORTING OF INFORMATION RELEVANT TO SAFETY

2.11.1 Records of operation and unusual occurrences

2.11.1.1 Vessel's logbook

A vessel's logbook shall be kept for each vessel.

The following information as appropriate to the vessel and its operations shall be entered into the logbook on a regular basis:

- a) Activities of the vessel.
- b) Position of the vessel.
- c) Navigation track.
- d) Weather experienced.
- e) Illness or injury of persons on board.
- f) Initial safety training, emergency preparedness training and any other safety training undertaken.
- g) Details of any marine incident or any other accident/incident involving the vessel or its equipment.

- h) Details of any assistance rendered to another vessel.
 - i) Details of any unusual occurrence or incident.
 - j) Details of all communications messages in relation to an emergency.
- NOTE: This book is sometimes referred as the Ship's log or record book. The vessel's logbook can take many forms and this Standard deliberately does not specify a required format. The vessel's logbook may be kept on board, or where it is not practicable to maintain a book on board, on shore. Electronic recording is permissible where there is a back-up arrangement to prevent the loss of records.

Additional information may also be recorded in the logbook to form a more complete record.

NOTE: It may also be combined or concurrent with records maintained for engineering planned maintenance, repairs, modifications, business transactions or catch monitoring in the case of fishing vessels.

Entries in the vessel's logbook should be dated, accurate, legible and made as soon as possible after an occurrence. The entries should be signed by the person making the entry and countersigned by the master.

2.11.1.2 Engineering records

A record of engineering items essential to the safe operation of the vessel should be recorded in the vessel's logbook or in a separate engineering record book.

The following information, as appropriate to the vessel and its operations, should be recorded:

- a) Fuel and liquid levels in tanks.
- b) Operating hours of machinery.
- c) Operating temperatures of machinery.
- d) Maintenance and services carried out and usage of replacement parts.
- e) Bilge levels.
- f) Known defects.

Engineering records entered in the vessel's logbook or engineering record book should be dated, accurate, legible and made as soon as possible after an occurrence. The entries should be signed by the person making the entry and countersigned by the master.

NOTE: The engineering record book can take many forms and there is no specified format required. It may be kept on board or on shore provided it is readily available on request. Electronic recording is permissible where there is a back-up arrangement to prevent the loss of records.

2.11.1.3 Records to be preserved

The vessel's logbook, and engineering record book where used, shall be kept for a minimum period of five years.

A person shall not:

- a) Wilfully destroy or mutilate a logbook/record book.
- b) Wilfully render illegible an entry in a logbook/record book.
- c) Wilfully make a false or fraudulent entry in, or an omission from, the logbook/record book.

- d) Sign an entry in the logbook/record book knowing the entry to be false or fraudulent.
- e) Deliberately withhold a logbook/record book from inspection.

2.11.2 Records of persons on board

2.11.2.1 Crew list

On all Class A, B and C vessels a crew list shall be maintained on board the vessel, and at a place on shore where it may be accessed quickly in an emergency.

The crew list shall contain the following particulars:

- a) The name of the vessel and official identification number.
NOTE: The identification number may be the vessel registration, survey number or any other form of unique identification required by an Authority.
- b) The name of the owner, the owner's address and contact details including phone number.
- c) The name of the employer of the crew, the employer's address and contact details including phone number.
- d) In respect of every employee on the vessel:
 - i) The name and home address of each person in the crew.
 - ii) The name, address and contact details of each person's next of kin.
 - iii) Capacity in which the person is employed.
 - iv) Dates of joining and leaving the vessel.

The crew list shall be kept up to date and readily available.

2.11.2.2 Passenger manifest

A passenger manifest shall be maintained for all passenger-carrying vessels on voyages that are of more than 12 hours duration.

For all other passenger-carrying vessels a head count of the passengers on board at any time shall be maintained.

Where a passenger manifest is required a copy shall be retained both—

- a) on board the vessel; and
- b) at a place on shore where it may be accessed quickly in an emergency.

The passenger manifest should as far as is practicable contain the following particulars:

- i) The name of the vessel and official identification number.
NOTE: The identification number may be the vessel registration, survey number or any other form of unique identification required by an Authority.
- ii) Details of voyage.
- iii) Name and address (local and home where appropriate) of persons on board.
- iv) Any other special customer or safety requirements.

NOTES:

1. The prime reason for a passenger manifest is to assist in rescue operations. As such it needs to be readily available at all times.
2. For certain voyages and activities it may be appropriate to record any special medical requirements or issues on the passenger manifest.

2.11.3 Reporting of incidents

Marine incidents shall be reported to the Authority as soon as practicable after the event, but no later than 12 hours after the event if they involve—

- a) death;
- b) serious injury;
- c) significant structural damage to the vessel,
- d) a hazard to navigation;
- e) a threat to the environment; or
- f) pollution to the environment.

All other marine incidents shall be reported to the Marine Authority within 24 hours.

In addition, any structural damage to a vessel's machinery or equipment that affects the safety or survey of the vessel shall be reported to the Marine Authority.

NOTES:

1. The keeping of records of injuries and treatment is of prime importance for operators of vessels when it comes to issues of insurance, workers' compensation and legal actions. An owner would be well advised to ensure that detailed records are kept in excess of these minimum requirements of the Marine Authority.
2. It is recommended that all marine incidents be analysed and where appropriate, corrective or preventative action be taken.
3. For the purposes of continuous improvement and to assist in understanding the risk to a vessel it is also advisable that incidents that had the potential to result in a marine incident (i.e. near misses) are also recorded and analysed.
4. The specific reporting requirements in each jurisdiction may vary and owners are advised to be aware of local requirements that may involve the reporting of incidents to other authorities such as work safety agencies or police.

CHAPTER 3 EMERGENCY PLANNING AND PREPAREDNESS

3.1 SCOPE

This Chapter specifies requirements for pre-planning for emergency situations, and the maintenance of emergency preparedness on vessels.

NOTE: Preplanning for an emergency has a number of benefits including:

1. Reducing the likelihood of error that may arise during decision-making under crisis conditions.
2. Highlighting deficiencies in safety systems before the event allowing appropriate preventive action to be taken.
3. Facilitating training that will improve the accuracy and speed of response of both passengers and crew in the event of an emergency.

3.2 APPLICATION

This Chapter applies to all vessels.

3.3 OBJECTIVE

The objective of this Chapter is to ensure that appropriate measures are put in place before an emergency to limit the consequences of an emergency should one occur.

NOTE: Appropriate measures include crewing and other resources, information, organisation, procedures and training.

REQUIRED OUTCOMES

3.4 REDUCING CONSEQUENCE

The response to an emergency on a vessel must be rapid and effective in reducing the consequences of the emergency.

DEEMED-TO-SATISFY SOLUTIONS

3.5 COMPLIANCE

For the purposes of this National Standard Class 1A and Class 2A vessels shall be deemed to satisfy the required outcomes in Clause 3.4 if they comply with Marine Orders Part 21, 28 and 58.

All other vessels shall be deemed to satisfy the required outcomes of Clause 3.4 if they comply with—

- a) Clauses 3.6 to 3.11; or
- b) Marine Orders Part 21, 28 and 58.

3.6 EMERGENCY PLANS

3.6.1 Contingency planning

Prior contingency planning shall be undertaken to—

- a) determine appropriate solutions to the generic hazards or emergency situations identified in Table 1; and

- b) identify any other hazards that could result in emergency situations, and the solutions to those hazards. In particular vessel and operation specific hazards should be identified.

NOTES:

1. Contingency planning should address all potential emergency situations that could arise during the operation of the vessel for which the risks to persons, the vessel or the environment could reasonably become unacceptable if the emergency response to that hazard was left uncontrolled.
2. Annexes B and C of Part B of the NSCV provide guidance on assessing risks and acceptable risk that may assist in identifying other hazards.
3. Part A of the NSCV provides guidance on safety obligations that may go beyond compliance with the minimum requirements specified in this Part of the Standard.

Table 1 — Minimum generic emergency situations for the purposes of contingency Planning

Emergency situation	Typical actions
Fire	Identify existence & location Raise the alarm Emergency stations for crew Assembly stations for passengers Account for all crew and passengers Escape of persons from fire effected areas Actions to contain fire Actions to extinguish fire Seek assistance, report incident, keep records Re-entry to fire affected spaces Assess further action Recover equipment
Person overboard	Preventative measures to reduce the risk of people falling overboard Systems to raise alarm Raise the alarm Provide floatation for persons in the water Mark position of person overboard Emergency stations for crew Assembly stations for passengers Account for all crew and passengers Search for unaccounted persons Seek assistance, report incident, keep records Recover person overboard First aid/medical attention Recover equipment

(Continued...)

Table 1 cont.

Emergency situation	Typical actions
Severe weather	Statement of vessel capability and owner's policy Monitor weather Preparations to secure vessel in shelter where appropriate Avoiding action where appropriate Seek assistance, report situation, keep records Precautions and management of the vessel if caught in severe weather
Personal injury / medical emergency	Monitor health and safety of persons onboard Succession of command First aid Medical advice by radio Seek assistance, report incident, keep records Evacuation by helicopter or other vessel Evacuation by calling in to shore Advice to next of kin
Assembly stations	Crew and passengers proceed to assembly area Account for all crew and passengers Search for missing people Provide instructions for use of safety equipment and techniques to optimise survival Provide assistance or labour as necessary Keep superfluous people clear of danger Carry out further action as directed
Collision / grounding / flooding	Systems to ensure watch keepers are alert Identify flooding Raise the alarm Emergency stations for crew Assembly stations for passengers Account for all crew and passengers Rescue of persons from flooded areas Actions to contain flooding Seek assistance, report incident, keep records Actions to curtail flooding Removal of water Assess further action

(Continued...)

Table 1 cont.

Emergency situation	Typical actions
Abandon ship	Criteria for decision Person delegated to make decision Alarms for evacuation Emergency stations for crew Assembly stations for passengers Account for all crew and passengers Don survival equipment Keep records Communicate distress Launch survival craft Evacuate into survival craft Post evacuation management

3.6.2 Form of emergency plan

An emergency plan shall be prepared for each vessel. The plan shall document the solutions determined during the contingency planning in Clause 3.6.1. The emergency plan shall be carried onboard the vessel in a form that is readily available for reference by any member of the crew.

NOTE: The format of the emergency plan may be varied to suit the vessel. For instance it may be a book, a set of indexed cards, laminated pages, notices or flipcharts, laminated display sheets, in a hand held or other computer, or any other system that suits the vessel and its crew. While it may be derived from generic procedures for the type of vessel, it will need to be adapted to be relevant to each vessel.

3.6.3 Content of emergency plans

The emergency plan shall include the following information:

- a) A description of the particular risk or situations being addressed by the plan.
- b) The emergency procedures to be followed in response to emergency situations.
- c) A list of persons and/or positions responsible for implementing the various procedures within the emergency plan, both prior to and during an emergency.

NOTE: This information is reproduced in summary format as the emergency station list for crew. See Clauses 3.9 and 3.10.1a)

- d) Initial safety training (See Clause 2.8.1), and emergency preparedness training (See Clause 3.11) to be provided to crew.
- e) Prior information, and safety training, to be provided to passengers, where required. (See Clause 2.8.2).

NOTES:

1. A concise emergency plan has a better chance of being read and understood.
2. Emergency plans for more than one emergency situation may be combined where doing so would add to brevity without losing clarity.

3. The opportunity and effectiveness of providing passengers with prior information, training and practice may be limited on vessels carrying passengers for relatively short periods. In such cases, the focus of the emergency plan would tend to be prior preparation of the crew.
4. The prior preparation of passengers on vessels that carry berthed passengers is a vital part of the emergency plan because of the difficulties of locating, awakening and directing each person individually and the negative effects on the cognisance of persons that have been awoken.
5. Detailed records of all incidents will be of prime importance in investigating the incident and assessing the management and response to the threat. Record keeping is best integrated in training.

3.7 ALTERNATIVE EMERGENCY PLAN FOR LOW RISK VESSELS

3.7.1 Application

The deemed-to-satisfy solution in Clause 3.7.2 is restricted to vessels less than 12 m in measured length that—

- a) have a regular, fixed crew;
- b) do not carry passengers;
- c) do not carry more than 3 crew; and
- d) are not:
 - i) vessels primarily designed for towage;
 - ii) support vessels in the offshore oil industry;
 - iii) carrier or support vessels for the delivery of fuel or dangerous goods; or
 - iv) any other type of high-risk vessel.

This solution is not applicable to vessels where there is a frequent or regular turnover of crew.

3.7.2 Verbal emergency plans

Vessels specified in Clause 3.7.1 may either—

- a) document their emergency plan in a written format as required by Clause 3.6.3; or
- b) have a verbal emergency plan as specified in Clause 3.7.3.

NOTE: Persons choosing this option should note that by not having even the simplest written procedures it may be difficult to demonstrate the thoroughness of contingency and emergency planning and emergency preparedness training, thereby increasing exposure to risk.

3.7.3 Requirements for vessels with a verbal emergency plan

Vessels opting for a verbal emergency plan shall—

- a) complete the checklist specified in Annex C (as modified to be relevant to the vessel) once every 3 months; and
- b) retain a copy of each completed check list in the vessel's logbook or other suitable location where it is readily available for verification.

NOTE: This provides a means of checking that all main contingency planning has been undertaken, and appropriate emergency and operational practices put into place.

- c) All crew shall be able to demonstrate competence in all emergency procedures and responses covered by the verbal emergency plan.
- d) Vessels with a verbal emergency plan are required to comply with all other requirements of this Part, as applicable to the vessel.

3.8 EMERGENCY ASSEMBLY FOR CREW AND PASSENGERS

3.8.1 Allocation of assembly stations

Assembly stations shall be allocated for all persons on board. More than one assembly station may be required to accommodate all persons safely.

At assembly stations the presence of all persons on board can be ascertained, and persons are in a position to move to abandon ship if required, or carry out other safety procedures in an organised and controlled manner.

3.8.2 Characteristics of assembly stations

In designating a location as an assembly station, the following requirements shall be considered:

- a) Ready access for persons from other spaces in the vessel to assemble at that station.
- b) Ample room for the assembly and instruction of passengers.
- c) Proximity and ready access to embarkation stations for life rafts.
- d) Ready communication to and from relevant control stations.
- e) Ready access to personal lifesaving equipment unless otherwise provided for under the emergency plan.
- f) Vessel stability.

3.8.3 Alternative assembly stations

On vessels that carry more than 36 persons, the emergency plan shall also specify alternative assembly stations in the event that one or more of the spaces specified as assembly stations are rendered unusable or inaccessible during the emergency.

3.8.4 Checking persons on board

A system to record and confirm the presence of all persons on board shall be provided.

NOTE: See Clause 2.11.2.2 for passenger manifest requirements.

3.8.5 Escape routes and assembly stations

Escape routes and assembly stations shall be clearly marked, and the markings shall remain visible in emergency situations.

Escape routes shall be kept clear of obstructions whenever the vessel is operating. Furniture and fittings along and within the vicinity of escape routes shall be secured or designed to prevent them blocking the escape route in an emergency.

NOTES:

1. Fittings include floor coverings.

2. Care should be taken to ensure that passenger belongings such as luggage, prams, or wheelchairs are not stowed in or adjacent to escape routes.

3.9 EMERGENCY STATIONS FOR CREW

Emergency station/s shall be assigned for each crew member.

3.10 EMERGENCY INFORMATION

3.10.1 General

Clear instructions to be followed in the event of an emergency shall be provided for every person on board. These instructions shall be in the form of—

- a) emergency station lists for the crew, (see Clause 3.10.2); and
- b) emergency information for passengers (See Clause 3.10.3).

3.10.2 Emergency station lists

Emergency station lists for crew shall provide the information listed in Table 2. Crew identification on the emergency station list shall be by designated capacity and/or name.

NOTE: Annex E provides a sample format that may be used in developing an emergency station list.

Each crew member shall be made aware of their emergency station/s and responsibilities, and shall be competent in their duties.

Table 2 — Contents of emergency station list

Item	Action
Emergency alarm signal	Details of the general emergency alarm signal and also action to be taken by crew and passengers when this alarm is sounded.
Abandon ship order	How the order to abandon ship will be given.
Duties assigned to the different members of the crew	<p>Closing of the watertight doors, fire doors, valves, scuppers, sidescuttles, skylights, portholes and other similar openings in the vessel.</p> <p>Equipping the survival craft and other life-saving appliances.</p> <p>Preparation and launching of survival craft including specified survival craft stations, where applicable.</p> <p>General preparation of other life-saving appliances.</p> <p>Assembly of passengers (see below).</p> <p>Use of communication equipment.</p> <p>Participation in fire parties assigned to deal with fires.</p> <p>Special duties assigned in respect of the use of fire-fighting equipment & installations.</p>
Duties assigned to members of the crew in relation to passengers.	<p>Warning the passengers.</p> <p>Seeing that passengers are suitably clad and have donned their life jackets correctly.</p> <p>Assembling passengers at assembly stations.</p>
Maintenance	The persons assigned to ensure that life-saving and fire appliances are maintained in good condition and are ready for immediate use.
Substitutes	Specify persons to substitute for key persons who may become disabled, taking into account that different emergencies may call for different actions.

3.10.3 Display of emergency station lists

The emergency station list shall be exhibited in conspicuous places throughout the vessel including the wheelhouse and crew accommodation spaces on vessels where at least one of the following applies:

- a) The number of crew exceeds 4.
- b) There are one or more berthed passengers.
- c) There are more than 36 un-berthed passengers.
- d) The voyage is in excess of 12 hours.

NOTE: On vessels where the emergency station list is not displayed, crew members should have ready access to the information in written form, for example in the Emergency Plan. For vessels that have a verbal emergency plan, knowledge of emergency stations should be regularly checked.

3.10.4 Display of emergency information for passengers

Illustrations and instructions shall be provided in passenger cabins and be conspicuously displayed at assembly stations and other passenger spaces to inform passengers of—

- a) their assembly station;
- b) the essential actions they must take in an emergency; and
- c) the method of donning lifejackets.

NOTE: This may be in the form of signs, notices, and emergency brochures.

The level and method of information provided should be appropriate to the vessel, duration of voyages and nature of the operation.

3.11 EMERGENCY PREPAREDNESS TRAINING FOR CREW

3.11.1 General

In addition to the initial safety training required in Clause 2.8.1, there shall be ongoing individual and team emergency preparedness training in the operational and emergency procedures specified in the emergency plan (Clause 3.6.3).

NOTE: This training encompasses what was previously referred to as emergency drills and exercises.

The training shall establish, maintain and verify the competence and capacity of the crew to respond rapidly and effectively to an emergency situation and to follow the requirements of the emergency plan.

NOTE: The training plan should be documented in the emergency plan.

The training shall be tailored to the duties of each member of the crew to ensure they are able to fulfil the roles required of them in the emergency plan. Training should allow for variations to the plan due to planned and unexpected changes to the crew e.g. leave, changes to schedules, ill-health.

3.11.2 Frequency of emergency preparedness training

The frequency of emergency preparedness training shall be sufficient to maintain crew competence at a level needed to ensure the crew's rapid and effective response to emergencies at all times. The frequency of training shall take into account—

- a) the likelihood that crew performance will deteriorate over time without periodic practising because of loss of familiarity with procedures and the location and use of equipment; and
- b) that new crew members may join the vessel who will need the opportunity to practice with and learn from other members of the crew.

NOTES:

1. For optimum training value, the period for repetition of emergency preparedness training should not exceed 2 months.
2. Some training may be conducted as a simulation on board combined with hands-on practical training conducted off the vessel (e.g. practical fire fighting). Other training may be a discussion or review of actions relevant to an emergency situation. The value of training is enhanced when conducted at different levels (i.e. review of "what if" situations, regular simulated drills to ensure all members know what they should do, with an occasional full evacuation trial using people as passengers to prove the evacuation procedure actually works).
3. Training may involve combining several scenarios in one training session in order to relieve the drill load; e.g. explosion followed by a fire followed by abandon ship, or collision involving an injury and subsequent oil pollution.
4. The shore communications and coordination arrangements between the vessel and the shore owner/office that would be required to cope with a serious emergency to the vessel need to be tested on an annual basis.

3.11.3 Recording of emergency preparedness training

The entry in the vessel's log (Clause 2.11.1.1 f), recording the emergency preparedness training undertaken shall include date, persons participating, nature and location of the training.

CHAPTER 4 SAFETY MANAGEMENT OF VESSELS

4.1 SCOPE

This Chapter specifies requirements for the safety management of vessels.

4.2 APPLICATION

This chapter has application to the operation of all vessels. Legislation may require the mandatory application of this Chapter.

NOTE: For those vessels which are not required by legislation to comply, this chapter is informative. However, an SMS is a useful tool to assist compliance with Chapters 2 & 3 and mandatory OHS obligations.

4.3 OBJECTIVE

The objective of this Chapter is to enhance the safety of a vessel by applying quality management principles to the operation and management of the vessel.

NOTE: A Safety Management System does not replace the requirement for a survey or registration inspection. A survey is primarily a check of the vessel's soundness and the condition of its equipment. A SMS is a management tool for ensuring the vessel is operated safely and maintained between surveys. An audit of a SMS is a means to confirm that the SMS is in place and is being used.

REQUIRED OUTCOMES

4.4 MANAGEMENT FOCUS ON SAFETY

The organisation that operates and manages a vessel must be committed to safety and compliance with safety standards as a key organisational goal.

4.5 LEADERSHIP

The organisation that operates and manages a vessel must create and maintain an environment that facilitates the effective and efficient achievement of the organisation's safety goals.

4.6 PARTICIPATION

Participation in the process of achieving safety goals must be shared by all persons within the organisation.

4.7 ASSUMPTION OF RESPONSIBILITY

Responsibility for achieving safety goals must be shared by all persons within the organisation.

4.8 SYSTEMATIC APPROACH TO MANAGEMENT

The management of a vessel must be holistic in nature: controlling inputs, processes and outputs to achieve the desired safety goals.

4.9 OBJECTIVE BASIS FOR DECISION-MAKING

The management of a vessel must establish means that enable decision making in respect of safety goals to be objective and effective.

4.10 ONGOING MONITORING AND IMPROVEMENT

The management of a vessel must monitor the effectiveness of its strategies to achieve safety goals and to respond to changes in external influences on the organisation that may arise.

DEEMED-TO-SATISFY SOLUTIONS

4.11 COMPLIANCE

A vessel shall be deemed-to-satisfy the required outcomes in Clauses 4.4 to 4.10 if it is provided with an SMS in accordance with:

- a) the ISM Code in its entirety; or
- b) Clause 4.12 and 4.13, and Annex A of this Part.

NOTE: Any one of the following may be assessed by an Authority as an equivalent solution to this requirement:

1. A safety management system or code of practice that has been designed specifically for a particular vessel category, area of operation and type of operation that satisfies the requirements of Annex A.
2. A management system based on the AS/NZS ISO 9001 or AS/NZS ISO 14001 or AS 4801 system standards adapted to marine safety and environmental management, which addresses the requirements of Annex A.

4.12 OTHER MANAGEMENT SYSTEMS ON A VESSEL

An SMS may be combined with other management systems of the vessel for the administration of other requirements such as occupational health and safety, food safety, quarantine, environmental or general management.

4.13 DOCUMENTATION

The SMS shall be documented to—

- a) provide a ready reference to the contents of the SMS to all persons charged with a duty for safety within the organisation;
- b) allow management to modify and control the contents of the SMS; and
- c) enable the existence and effectiveness of the SMS to be verified both by the organisation itself and by other parties.

NOTE: Requirements for verifying compliance with this Chapter may be specified by the enabling legislation for this Standard.

ANNEX A MINIMUM REQUIREMENTS FOR A SAFETY MANAGEMENT SYSTEM FOR DOMESTIC VESSELS

A1 SCOPE

This Annex establishes the minimum requirements for an SMS system for domestic vessels. It forms a mandatory part of the Standard and is referenced in Clause 4.11.

A2 APPLICATION

This Annex shall apply to all domestic vessels that are required to have a SMS under Clause 4.11.

NOTE: The owners and operators of vessels that are not required to have an SMS are still subject to safety obligations under occupational health and safety and other statute law. Part A of this standard and the contents of this Annex A and Annex B can be used as guidance in fulfilling these safety obligations.

A3 OBJECTIVES OF AN SMS

The objectives of an SMS are to prevent human injury or loss of life, avoid losses due to damage or operational downtime and avoid damage to the environment.

The SMS shall, among other things—

- a) provide for safe practices in vessel operation and a safe working environment;
- b) establish means of identifying hazards and then eliminating or reducing risk to an acceptable level;
- c) continuously improve the safety-management skills of personnel on shore and onboard vessels, including preparing for emergencies related both to safety and environmental protection;
- d) facilitate compliance with mandatory rules and regulations including occupational health and safety, and environment protection legislation; and
- e) ensure that applicable codes, guidelines and standards recommended by the International Maritime Organization, Authorities, classification societies and maritime industry organisations are taken into account.

A4 DEFINITIONS

hazardous occurrences—

situations which could have led to an accident if they had developed further (i.e. near miss situations).

non-conformances—

instances where the procedure(s) has not been followed, the procedure does not reflect agreed safe work practice, or where the SMS is deficient. It can also be any error where the safety of people, the environment, the vessel or its cargo including passengers has been endangered.

NOTE: Reports of non-conformities are particularly valuable in identifying where procedures may have to be altered to improve safety.

A5 MINIMUM REQUIREMENTS FOR A SAFETY MANAGEMENT SYSTEM FOR DOMESTIC VESSELS

A5.1 General

The SMS shall include the information specified in Clause A5.2 to Clause A5.13.

Where a particular requirement is not relevant to a particular vessel, a statement to that effect shall be included in the SMS.

A5.2 Policy and general procedures

Crew and staff shall be provided with the opportunity to make recommendations and to have active input into the development and ongoing operation of the SMS.

The SMS shall include:

- a) A Safety and Environmental Policy.
- b) A means of recording and evaluating customer feedback.
- c) Any other relevant policies – these may include a drug and alcohol policy, non-smoking policy etc.

A5.3 Owner's responsibilities

The SMS shall specify the details and name/s of the owner of the vessel and the operator (if different from the owner). It shall also specify their responsibilities and any delegated authority to act on behalf of the owner.

The owner shall define the relationship and lines of communication between shore based and onboard personnel responsible for implementing the SMS.

A person with direct access to the owner of the vessel shall be designated as being responsible for monitoring the safety and pollution prevention of the vessel and ensuring appropriate resources and shore support are provided to the vessel.

NOTES:

1. This person is usually known as the designated person (DP).
2. This person could be the master where the master is the owner.

A brief 'job description' for each position shall be included so that each staff member on shore and each crew member onboard understands his/her duties and responsibilities.

A5.4 Master's responsibility and authority

There shall be a statement of the master's responsibility in relation to the implementation and verification of the SMS onboard the vessel.

There shall be a clear statement in the SMS that the master has the overriding authority and responsibility to make decisions with respect to

the safety of the vessel and pollution prevention, and to request the owner's assistance as necessary.

A5.5 Crew qualifications and crewing

The SMS shall identify—

- a) the number and certification requirements of all persons required as minimum crew for all classes of survey held;
- b) the basis for determining the adequate crew for the vessel in accordance with the requirements of NSCV Part D Clause 2.6; and
- c) any additional crew requirements for the vessel.

A5.6 Training of crew and shore staff

The SMS shall identify the requirements for initial safety training (see Clause 2.8.1) and provide for a record that all crew and, where applicable, shore staff have completed this training.

The training needs of all crew and other shore staff to support the SMS and to assist them to carry out their duties safely and effectively shall be identified and recorded in the SMS. This training will include any emergency preparedness training identified in Chapter 3.

There shall be a system in place to ensure that crew and shore support staff receive the training they require.

Arrangements shall be made that until each crew member has been assessed as competent to work without supervision, that adequate supervision is provided as required under Occupational Health and Safety provisions.

All crew and key shore staff with responsibility towards vessel safety shall be able to communicate effectively and be able to understand instructions in a common language. Initial safety training, supervision in work practices, relevant sections of the SMS and other relevant written safety material shall be supplied to crew in a language that they understand.

NOTE: Where illiteracy is a problem there will need to be a strategy in place to overcome any safety or record keeping issues that may arise from the illiteracy.

A5.7 Procedures for onboard operations

Procedures shall be prepared to cover the key operations of the vessel and systems of work onboard.

An owner should decide which procedures are “key” for the vessel and its operations.

NOTE: Annex B provides a guide for the owner of common key operations and issues that may need to be addressed within those procedures. The decision to include or reject the need for procedures from Annex B remains the responsibility of the owner.

A5.8 Emergency preparedness training

Procedures for identifying and responding to potential onboard emergency situations shall be established. This incorporates the contingency and emergency planning required by Chapter 3 of this Part.

The SMS shall incorporate any additional procedures needed or required to address environmental and safety situations.

A program of emergency preparedness training shall be planned and a record kept of training undertaken.

The frequency of drills and training shall be as required by 3.11.2.

The SMS shall ensure that the organisation, including shore-based staff and facilities, is able to respond to all foreseeable onboard hazards, accidents and emergency situations, and appropriate training is provided.

A5.9 Follow-up on hazardous occurrences and SMS non-conformities

A record of hazardous occurrences and non-conformances shall be kept. There shall also be a record of the results of the investigation and analysis of the identified problems. The action taken to correct identified problems and to prevent their re-occurrence shall also be recorded.

Customer complaints and feedback may be included in the same record.

A5.10 Maintenance and survey

A procedure for programmed maintenance of hull and machinery, and periodic survey requirements shall be provided. The procedure shall include the recording and reporting of lapses in programmed maintenance and defects as they occur. There shall be a system for recording and rectifying lapses and defects in an appropriate time frame.

The SMS shall incorporate procedures to identify the possible effects of failure of onboard machinery and equipment and other technical and electronic equipment that may cause a hazardous situation. The SMS shall provide for measures to reduce the risk of occurrence and to manage the consequences of such failures.

A5.11 Compliance with applicable laws

The SMS shall identify legislative requirements relevant to the operation of the vessel, including relevant regulation, standards and codes of practice.

NOTE: AS 3806 provides guidance on what arrangements might be made to fulfil the elements of a compliance program.

A5.12 Documentation

Procedures shall be put in place to identify and control documents and data relevant to the SMS.

The relevant sections of the SMS shall be made available to staff and crew.

The SMS shall be in whatever form the owner deems most appropriate for the vessel and crew.

Applicable ancillary documents (e.g. statutory rules and regulations, classification rules, manufacturers' instruction manuals and drawings, nautical publications and charts) shall be referenced in the SMS and be available to allow crew and staff to fulfil their responsibilities.

A5.13 Verification, review & evaluation

There shall be a procedure to verify and record that the critical procedures are being followed.

NOTE: This may be as simple as recording that induction training has been completed by having both the master/skipper and the new crew member initial the appropriate entry in a log book or checklist.

The SMS shall be reviewed annually by the owner and master to evaluate its effectiveness against the objectives. The review and consequential actions/amendments shall be documented.

There shall be an internal system to audit compliance with the SMS (both on shore and onboard) on an annual basis.

NOTE: More frequent internal audits by staff are a valuable tool for monitoring the effective implementation of an SMS.

The SMS shall be capable of being externally audited by an independent party.

ANNEX B SAMPLE KEY OPERATIONS FOR AN AUSTRALIAN DOMESTIC VESSEL SAFETY MANAGEMENT SYSTEM

B1 SCOPE

This Annex provides guidance on key operations that may require procedures, as well as the elements to be covered by the procedure. It forms an informative part of this Standard.

NOTE: The presence of a procedure in this annex should not be interpreted to imply that the procedure is necessarily needed in order to comply with Annex A. Similarly the absence of a procedure from this list should not prevent the inclusion of a procedure in a SMS should the owner determine the need to address the procedure.

This Annex is referenced in A5.7 of this Standard.

NOTE: This Annex does not list key emergency operations, as these have been addressed in Chapter 3, table 3 of this Part. Under an SMS procedures for emergency operations will also need to be developed.

B2 APPLICATION

This Annex applies to vessels seeking guidance on identifying key operations that may require procedures under an SMS.

NOTE: The following list is for guidance. It is not a definitive list. Addressing all the key operations in this Annex does not guarantee that all situations for every vessel will be addressed, nor does the absence of an operation from this list imply that a procedure for that operation is not necessary for a vessel.

Procedures for some of these key operations may be mandatory under other legislation at a local, state/territory or federal level (ie: OH&S, environmental, health, port legislation).

In addition Chapter 2 and 3 of this part may contain specific requirements for some of these operations.

B3 GENERAL

B3.1 Responsibility

Procedures should clearly identify the position or person responsible for carrying out an operation, or ensuring that the operation has been carried out.

B3.2 Operations to addressed

Procedures should be developed for operations and activities that present the greatest risk to the crew, passengers, the vessel and the environment. The key operations identified in this Annex are advisory only.

NOTE: A risk assessment may be used to assist in identifying and prioritising the operations and activities that require a procedure.

Where the risk of a particular operation or activity is considered to be low then a procedure for that operation or activity may be omitted from the safety management system.

Those operations or activities with a high risk may require additional or more detailed procedures to reduce the risk.

Care should be taken to identify any risks inherent in training. These should be assessed and measures taken to eliminate or minimise the risk. These precautions should be documented in the procedures.

Guidance on risk assessment is contained in Part B of this NSCV.

B4 COMPLIANCE WITH LEGISLATION

Procedures in the SMS should address any relevant legislation, including regulations and codes of conduct that have an impact on the operation of the SMS.

B5 SAMPLE KEY OPERATIONS

The following is a generic list of key operations that a crew of a vessel (to the extent of their individual responsibilities) might be expected to perform. In accord with Clause B3.2, procedures should be developed for these activities where relevant to the vessels operation:

- a) Training.
- b) Preparing for sea.
- c) Watchkeeping.
- d) Communicating with other vessels and shore agencies.
- e) Navigating safely.
- f) Participating in search and rescue activities.
- g) Operating in restricted visibility.
- h) Managing watertight integrity.
- i) Managing the loading, carriage and discharge of dangerous goods and hazardous material.
- j) Manoeuvring the vessel and alternative steering arrangements.
- k) Mooring.
- l) Anchoring.
- m) Towing.
- n) Transferring of people to and from the vessel.
- o) Operating small boats or tenders.
- p) Working aloft or overside.
- q) Working with lines.
- r) Operating plant and machinery.
- s) Fuelling, oil pollution prevention and response.
- t) Pumping of bilges.
- u) Maintaining the vessel and its plant and equipment.
- v) Entering and working in enclosed spaces.
- w) Managing risks to the environment including:
 - i) Disposal of garbage.
 - ii) Disposal of waste oil and water (grey water).
 - iii) Disposal of sewage.

- iv) Minimising noise pollution.
- v) Minimising discharges to atmosphere.
- vi) Anchoring appropriately in sensitive areas.
- x) Recording details of crew and passengers.
- y) Recording information in vessel's logbook or engineering record book.
- z) Reporting of incidents.
- aa) Identification, analysis and control of hazards.
- bb) Specialised operational tasks/requirements of the vessel.
- cc) Using lifting devices.
- dd) Cargo operations.

B6 GUIDANCE ON PROCEDURES TO ADDRESS KEY OPERATIONS

B6.1 Training

This procedure should ensure that the crew is competent and remains competent in operational and emergency procedures as well as their general duties.

The following issues should be addressed in the procedure:

- a) The requirements for training in Clauses 2.8.1 and 3.11.
- b) Type and frequency of training required to maintain competence.
- c) Person responsible for delivering training, and for assessing competence.
- d) How records of training will be kept, including the requirement under Clauses 2.11.1.1 and 3.11.3.

Training will be required for each operation / activity specified. In the SMS it may be, and could be incorporated into the procedure for that activity.

NOTE: It is recommended that whenever there is a change to crew that further training and reassessment of competencies be conducted.

B6.2 Preparing for sea

B6.2.1 *Fitness of the vessel and crew*

This procedure should ensure that the vessel and crew are fit to encounter the conditions of the voyage prior to departure.

The procedure should identify which key operations are required to be undertaken and/or checked prior to departure. It is recommended that the following matters be considered as a minimum:

- a) Stores—check that the vessel is supplied with sufficient quantities of stores, water, fuel and equipment for the voyage, including reserves.

NOTE: A reserve should be allowed for when calculating fuel and water requirements to take account of the vessel, the area/environment and the operation/task to be undertaken.

- b) Lifesaving equipment—check that the requirements under NSCV Part C Section 7 is complied with, and that all members of the crew are familiar with the location of all lifesaving equipment and are

competent in the use of that equipment and that the requirements of Clause 2.10 of this Part is met.

- c) Stability—Check that the requirements under Clause 2.10.3.1 are met and the trim and stability of the vessel have been determined as in compliance with the parameters of the vessel's stability information.
- d) Watertight openings—Check that the requirement under Clause 2.10.3.2 are met and that all watertight openings required to be secured during a voyage are closed and remain secured, throughout the voyage.
- e) Voyage plan—Check that a responsible person has been made aware of the vessel's departure and proposed operation and has clear instructions on actions to be taken should they not hear from the vessel by the appointed time.
- f) Machinery and equipment—Check that the vessel's machinery, plant and safety equipment is in working condition and is safe to operate, and that the requirements under Clause 2.11.1.2 are met.
- g) Bilge—Check that all bilge spaces are clean and pumps in operating order.
- h) The lodgement of crew lists and passenger manifests as applicable.

B6.2.2 Testing equipment

This procedure should ensure that all equipment on board the vessel is operational and in good order prior to departure.

The matters to be addressed in this procedure include:

- a) Pre-departure testing of equipment such as:
 - i) Steering gear (see Clause 2.10.2.1).
 - ii) Sound signalling device (i.e. horn).
 - iii) Communications equipment.
 - iv) Navigation equipment.
 - v) Vessel's engines and machinery, engine controls and remote alarms.
 - vi) Remote bilge alarms and pumps.
 - vii) Fire pumps.
- b) Method for recording that these checks have been carried out, including the requirements to record checks in the vessels logbook in Clause 2.11.1.1 and 2.11.1.2 of this Part.

B6.3 Watchkeeping

This procedure should ensure that a watch appropriate to the conditions is maintained in all vessels that are underway, at anchor, or when engaged in the transfer of cargo or passengers.

The procedure for watchkeeping should address the following issues:

- a) Compliance with Colregs with regard to watchkeeping.

NOTE: Rule 5 of the International Regulations for the Prevention of Collision at Sea requires that "Every vessel must at all times maintain a proper look-out by

sight and hearing as well as by all available means appropriate to the prevailing circumstances and conditions, so as to make a full appraisal of the situation and the risk of collision."

- b) Duties of the watchkeeper.
- c) Instructions for the watchkeeper (see Clause B6.3.1, B6.3.2 and B6.3.3 for guidance on instructions).
- d) Fatigue strategy that ensures that persons acting as watchkeeper are sufficiently rested to manage a watch.
- e) The position that the navigation watch is to be undertaken from.

NOTES:

1. This position is normally referred to as the control position, or the wheelhouse or, in larger vessels, the bridge.
2. Undue distractions from reflected lights, sound systems, discothèque and electronic entertainment equipment and the presence of passengers may interfere with proper discharge of the responsibilities. The issue of crew security and safety will need to be addressed in some vessels.

- f) Communication arrangements to ensure that appropriate communications between all persons involved with the maintenance of the watch.

NOTE: Further guidance on watchkeeping is available in Marine Orders Part 28 and STCW-95.

B6.3.1 Instructions when the vessel is underway

The following is a sample list of instructions for the watchkeeper while the vessel is underway:

- a) Follow any instructions from the master.
NOTE: The instructions may be verbal or written (included in night orders where provided), either direct or indirect (via a third person such as an earlier watchkeeper) and include both standing instructions for watchkeeper or watch specific instructions.
- b) Seek clarification where doubt exists on either the intent or wisdom of the instructions.
- c) Follow the navigation plan.
- d) Maintain the safe navigation of the vessel utilising all available aids for establishing the position of the vessel.
- e) Manage any special conditions affecting the vessel's progress or operation.
- f) Manage maintenance of machinery and plant, which may effect the safety, operation, or progress of the vessel.
- g) Maintain a radio watch.
- h) Take immediate action to preserve the safety of the vessel.
- i) Call the master if in doubt.
- j) Keep records of events.
- k) Be aware of any special conditions, including watertight integrity, affecting the vessel's progress or operation.
- l) Be fully aware of any mechanical defects, which may affect the performance of the vessel.

Note: Refer to Marine Orders Part 28 Appendix 1 to 4 for further guidance.

B6.3.2 Instructions when the vessel is at anchor

The following is a sample list of instructions for the watchkeeper while the vessel is at anchor or not underway:

- a) Determine and record the vessel's position.
- b) Ensure that the vessel maintains its position.
- c) Maintain a lookout for other vessels in the vicinity.
- d) Take immediate action to ensure the safety of the vessel.

B6.3.3 Instructions when the vessel is transferring cargo or passengers

The following is a sample list of instructions for the watchkeeper of a vessel is transferring cargo or passengers:

- a) Monitor the safe access to and from the vessel.
- b) Ensure that all persons affected by the operations are aware of their safety obligations.
- c) Monitor the stability and moored condition of the vessel.
- d) Ensure compliance with the port and state requirements for the transfer of cargo or passengers, and the International Maritime Dangerous Goods (IMDG) Code.

NOTE: Port or state requirements may include AS 3846 (*The handling and transport of dangerous cargoes in port areas*)

B6.4 Communicating with other vessels and shore agencies

This procedure should ensure that a vessel is able to:

- a) Signal a distress situation.
- b) Respond to a distress notification from another vessel.
- c) Communicate with other vessels within sight.
- d) Receive marine safety information.
- e) Communicate with shore authorities and owner where applicable.

The procedure should provide a communication plan appropriate for the vessel showing the methods of communication to be used for:

- i) Emergency communications (Distress alerting).
- ii) Search and Rescue.
- iii) Marine safety information.
- iv) Passing navigational danger messages (see Clause 2.8.7), weather reports and other legislated reports to shore authorities.
- v) Owner / company communications requirements.

B7 SAFETY OF NAVIGATION

This procedure should ensure that the vessel is navigated safely at all times.

The procedure should address the following:

- a) The provision of appropriate navigation equipment to allow the vessel to be navigated in all reasonably foreseeable situations.

NOTE: Navigation equipment includes the required equipment under Part C Section 7, appropriate charts and nautical publications, and any additional navigation equipment deemed necessary for the safety of the vessel.

- b) Training in the use of the vessels navigation equipment.
- c) Requirements for periodic maintenance of equipment.
- d) Requirement to update navigational charts, information and publications.
- e) Any regular checks of serviceability that are required.
- f) Any relevant manufacturer's instructions for use, care or servicing.
- g) Planning the vessel's passage and movements to avoid known dangers.
- h) Frequency of monitoring the vessel's position relative to navigation dangers and other vessels to avoid dangerous situations.
- i) Monitoring regime for the automatic pilot.
- j) Use and application of the automatic pilot.
- k) Changing from automatic pilot and changing from or to manual steering.

B8 PARTICIPATING IN SEARCH AND RESCUE ACTIVITIES

This procedure should ensure that the vessel can participate in search and rescue activities as required (see Clause 2.8.5).

The procedure should address the following:

- a) Provision of relevant publications onboard the vessel or on shore.
- b) Actions to be taken on receiving a distress or emergency signal, including those required by Clause 2.8.5.

B9 OPERATING IN RESTRICTED VISIBILITY

This procedure should ensure that the vessel is navigated safely in conditions of restricted visibility.

This procedure should address the following:

- a) Requirements under Colregs for operations in restricted visibility.
- b) Actions to be taken in restricted visibility.
- c) Equipment to be used.
- d) Requirements in Clause 2.10.2.2.

B10 MANAGING WATERTIGHT INTEGRITY

This procedure should ensure that the watertight integrity of a vessel is managed and maintained to minimise the risk of uncontrolled flooding.

The procedure should address the following:

- a) Requirements under Clause 2.10.3.2
- b) Identification of which watertight openings shall be kept closed when underway.
- c) Method for managing their status.

B11 MANAGING THE CARRIAGE AND HANDLING OF DANGEROUS GOODS AND HAZARDOUS MATERIAL

This procedure should ensure that the risk to the crew, vessel, cargo and the environment from the carriage and handling of dangerous goods and hazardous material onboard a vessel is minimised.

This procedure should address the following:

- a) Which dangerous goods and hazardous material may be carried.
- b) Storage and handling.
- c) Requirements under state, territory or federal legislation.
- d) Applicable requirements under AS 3846.
- e) Applicable requirements under the IMDG Code.
- f) State and Territory requirements or guidance on the carriage and handling of dangerous goods.

B12 MANOEUVRING THE VESSEL AND ALTERNATIVE STEERING ARRANGEMENTS

This procedure should ensure that the vessel can maintain its heading should the primary steering system fail.

The procedure should address the following:

- a) Requirements for alternative steering arrangements under Clause 2.10.2.
- b) Method for changing over to alternative steering arrangements.
- c) Instructions for the operation of alternative and standard steering equipment.

B13 MOORING

This procedure should ensure that a vessel can be moored securely alongside, at a mooring buoy or in a pen.

The procedure should address the following:

- a) Provision of mooring equipment and apparatus.
- b) Storage of mooring equipment.
- c) Training of crew to ensure that the vessel can be moored—
 - i) using the equipment and apparatus in accordance with manufacturers instructions and common industry safety practices;
 - ii) to prevent any movement that could induce damage to the vessel, its berth, any other vessel or property, and to prevent it breaking free of its mooring;

Note: Allowance should be made for tidal variations and changes to the weather.
 - iii) in a position that does not impede legitimate access of other vessels to facilities or navigation channels; and
 - iv) to restrict unauthorised entry when left unattended.

B14 ANCHORING

This procedure should ensure that a vessel is able to come to and ride to a single anchor in anchorages suitable for the vessel.

The procedure should address the following:

- a) Provision, storage and deployment of anchoring equipment.
- b) Suitable anchorages for the vessel.
- c) Training of the crew to cover swinging room, safe shelter, best possible good holding in all states of tide and expected currents and weather.

B15 TOWING

This procedure should ensure that a vessel is capable of either towing, or being towed by a vessel of similar size.

The procedure should address the following:

- a) Provision of suitable equipment, apparatus and fittings for towing.
- b) Critical factors to be considered in assessing whether or not a safe tow operation can be affected, taking into account the following:
 - i) A vessel at sea is only obligated to attempt to save life. The rescue of property should only be considered when the perceived risk to the crew and vessel is acceptable.
 - ii) Mooring cleats and bollards are normally designed for mooring the vessel alongside a wharf, and not for the towing of other vessels. Masters should ensure that the towing load is distributed evenly over a number of bollards or cleats, or choose a known strong point within the vessel to attach the tow.
 - iii) The tow should be made fast to a fixed pin assembly arrangement on the centreline of the towing vessel at a point ahead of the rudders and propellers so that the towing vessel will retain steerage and avoid girding. If this is not practical, a portable system utilising a bridle of rope or wire with hard eyes at securing ends and a running block can be arranged to move the effective towing point forward and retain steerage control although the tow is attached to the stern of the vessel.
- c) Provision for the easy slipping of the tow in an emergency situation.

B16 TRANSFERRING PEOPLE TO AND FROM THE VESSEL

This procedure should ensure that a vessel has appropriate provisions and facilities to safely transfer people in calm conditions at sea, or when at a berth or in an anchorage for the vessel.

This procedure should address the following:

- a) Provision of appropriate equipment.
- b) Measures to ensure that any gangways, brows, ladders, steps are—
 - i) suitable for the safe use of the people being transferred;
 - ii) secured to the vessel or wharf;

- iii) maintained in a safe condition; and
- iv) rigged in a safe manner.
- c) Measures to ensure that no person boards or leaves the vessel until it is safe to do so.
- d) Measures to ensure that the vessel is secured in such a way to prevent or minimise the risk of unexpected movement during the transfer.
- e) Requirements for crew to be in attendance to assist passengers.
- f) Training in transferring persons to boat, or to berth, and in recovering from the sea.
- g) Maintenance of boats.
- h) Requirements for the safe loading and operation of boats.
- i) Provision of man overboard equipment.
- j) Any information (i.e.: safety briefing) required to be provided to persons prior to the transfer.
- k) Personal safety equipment that might be required (ie: Life jackets).

B17 OPERATING SMALL BOATS AND TENDERS

This procedure should ensure that small boats and tenders are operated in a manner that minimises the risk to the occupants.

This procedure should address the following:

- a) Situations in which a small boat is used.
- b) Training for the crew.
- c) Maintenance and storage of the vessel.
- d) Safety equipment that may be required on board the vessel.
- e) Capacity limits and safe operating procedures.
- f) Rescue plan should the boat overturn or a person fall overboard.
- g) Communication with the boat.
- h) Supervision.

B18 WORKING ALOFT OR OVERSIDE

This procedure should ensure that personnel working aloft or over the side are not be exposed to unnecessary hazard.

The procedure should address the following:

- a) Permission and supervision regime.
- b) Communication.
- c) Provision, maintenance and servicing of safety equipment required such as safety harnesses, scaffolding etc.
- d) Methods for ensuring safety of equipment i.e. use of safety lanyards and hauling lines for passing tools and equipment.
- e) Communication.
- f) Identification of any machinery, equipment or devices that may pose a threat in working in these areas. For example radar scanners,

radio transmitters and other machinery with either a physical or radiation danger to persons in the vicinity.

- g) Protocol to secure, deactivate, or otherwise reduce the risk from any of the machinery, equipment or devices identified above.
- h) Restrictions that may be required while the work is being undertaken.

B19 WORKING WITH LINES

This procedure should ensure that the danger to persons from working with lines is minimised.

The procedure should address the following:

- a) Supervision and communication.
- b) Identification of dangers.
- c) Training to ensure that crew:
 - i) Are competent to secure, undo, ease and haul in the lines safely.
 - ii) Understand commands, instructions and/or signals they may be given.
 - iii) Understand their part of the task and understand what is expected of them.
 - iv) Aware of the dangers of lines under tension and how to work with such lines, take turns etc.
 - v) Are competent in the use of any machinery (winches, capstans etc) and the operation of the controls and safety systems.

B20 OPERATING PLANT AND MACHINERY

This procedure should ensure that all plant and machinery in a vessel should be operated in accordance with the manufacturer's handbook.

This procedure should address the following:

- a) Inspection of new machinery.
- b) Essential checks of machinery prior to operation i.e. fluid levels, safety devices.
- c) Manufacturers operating instructions and procedures.
- d) Manufacturer's handbook.
- e) Maintenance plan.
- f) Identification of hazards associated with working with machinery, or in machinery spaces.
- g) Training.

NOTE: Information on plant that is subject to registration, operating conditions and/or operator licensing by OH&S Authorities or other regulating bodies can be identified in this procedure.

B21 FUELLING AND OIL POLLUTION

This procedure should ensure that fuelling is conducted so as to minimise the potential hazard to the vessel or the environment.

This procedure should address the following:

- a) Person in charge.
- b) Communications procedures from fuel deliverer to the vessel.
- c) Testing of communication procedures prior to fuelling.
- d) Precautions to prevent spillage of fuel overboard.
- e) Emergency shut down procedures for the fuelling
- f) Testing of emergency shut down procedures prior to fuelling.
- g) Monitoring of fuel hoses and fuel tank levels during fuelling.
- h) Clean-up procedures for fuel spilled on deck.
- i) Measurement and recording of fuel in tanks before and after taking on fuel.
- j) Essential safety rules such as no smoking is permitted on the vessel or in its immediate vicinity during bunkering.
- k) Identify and observe safety requirements of the port/harbour authority, the fuel supplier and or berth operator.
- l) Procedures in the event of spillage. These could include:
 - i) Stop the flow of fuel or pollution to the sea.
 - ii) Inform personnel and vessels in the immediate vicinity that a spill has occurred and a fire hazard may exist.
 - iii) Establish a zone wherein a fire watch can be maintained and fire-igniting activities prevented.
 - iv) Inform the harbour authority and or berth operator to enable them to initiate the appropriate response.
 - v) Minimise the effect and spread of the spillage.
 - vi) Dispersants should not be used without the permission of the harbour authority.
 - vii) Record all spillage, and the action taken with their times.

B22 PUMPING OF BILGES

This procedure should ensure that discharge from bilges does not cause a hazard or damage the environment.

This procedure should address the following:

- a) Method to prevent ingress of oil or other contaminates into the bilge.
- b) Objective to keep the bilge dry.
- c) Requirements under the International Convention for the Prevention of Pollution of the Sea from Ships to prevent the discharge of oily water from a vessel to the sea.
- d) Environmentally responsible method of dealing with contaminated bilge water (i.e. use of pump out facility or storage in drums).
- e) Identify pump out facilities to take contaminated bilge water.
- f) Checks to ensure that the vessel does not operate with fuel or oil in the bilge.

B23 MAINTAINING THE VESSEL AND ITS PLANT AND EQUIPMENT

This procedure should ensure that a vessel, its plant and equipment, when on a voyage or preparing for a voyage, are maintained in an operational state so that the safety of the vessel and its crew is not compromised.

A vessel not ready for sea should be maintained so as not to create a hazard to other vessels, the environment, or people on or near the vessel.

This procedure should address the systematic maintenance schedule for the vessel including periodic survey:

B24 ENTERING AND WORKING IN ENCLOSED SPACES

This procedure should ensure that the risk to persons working in enclosed spaces is minimised.

This procedure should address the following:

- a) Identify spaces that could be considered "enclosed" both in operational and maintenance conditions and during periods where the vessel may have been laid up.
- b) Identify and address hazards with fumes and/or explosions from working with paint, chemicals, cleaners etc below deck.
- c) Approval process for entry into enclosed spaces.
- d) Safety precautions required in enclosed spaces.
- e) Provision of appropriate safety equipment.
- f) Appropriate supervision at all stages and particularly when persons are in the enclosed space.
- g) Training so that the crew are aware of the identity of enclosed spaces, dangers of enclosed spaces, precautions and approvals before entering, procedures for entering and working in those spaces and rescue techniques.
- h) Training in rescue situations with and without external medical and rescue back up.

B25 DISPOSAL OF GARBAGE

This procedure should ensure that the disposal of garbage from a vessel is managed to minimise the risk of pollution to the environment and to comply with relevant legislation.

This procedure should address the following:

- a) Identify legal obligations

NOTE: Requirements and/or guidance on the disposal of garbage at sea can be found in Commonwealth/State/Territory legislation, Marine Orders 95 - "Marine Pollution Prevention - Garbage" and the International Convention on the Prevention of Pollution From Ships 1973/78(MARPOL 73/78) - Annex V.
- b) A waste management plan for vessels that are either over 400 GT or certified to carry 15 passengers or more to address issues such as separation, storage and handling of garbage.
- c) Procedures to ensure that all other vessels:

- i) Bring ashore all plastics and non-biodegradable items for correct disposal.
- ii) Dispose of food wastes appropriately

NOTE: Food wastes may be disposed of outside of 12 n mile from nearest land unless otherwise stated by an Authority's legislation

B26 DISPOSAL OF WASTE OIL

This procedure should ensure that the waste oil from a vessel is disposed of correctly to prevent pollution.

This procedure should address the following:

- a) Onboard storage facilities for storage of waste oil and oily residues including diesel, hydraulic fluids, and bilge water with any concentration of oil.
- b) Disposal mechanism at appropriate waste reception facilities.

B27 DISPOSAL OF SEWAGE

This procedure should ensure that the disposal of sewage from a vessel is managed to minimise the risk of pollution to the environment.

This procedure should address the following:

- a) Identify local requirements for the disposal of sewage.
- b) Onboard storage facilities where necessary.
- c) Safety issues associated with onboard sewage storage systems.

B28 MINIMISING NOISE POLLUTION

This procedure should ensure that the noise emanating from a vessel is managed to comply with the legislative requirements of the Authority in which a vessel is operating and to ensure that the noise does not interfere with the ability of the person/s on watch to keep an effective lookout as required by the Colregs.

This procedure should address the following:

- a) Legislative requirements.
- b) Source of noise.
- c) Level of noise.
- d) Level of noise in the control position or wheelhouse.
- e) Strategies to reduce or minimise the effect of noise.

B29 DAMAGE TO SENSITIVE ENVIRONMENTS THROUGH ANCHORING

This procedure should ensure that the risk of damage to sensitive marine environments when anchoring and lying to anchor is minimised through compliance with local regulations and codes of practice.

This procedure should address the following:

- a) Location of sensitive marine environments.
- b) Legislative requirements including local regulations.

- c) Acceptable berths to minimise damage to the environment and comply with legislation.

B30 RECORDING DETAILS OF PASSENGERS AND CREW

This procedure should ensure that all persons onboard the vessel can be accounted for.

This procedure should address the following:

- a) Requirements for crew lists and passenger manifests (see Clauses 2.11.2.1, 2.11.2.2 and 3.8.4).
- b) Provisions to account for the safe return of all passengers, crew and other employees (e.g. tour guides, activity leaders, instructors etc where off-board activities are provided).

B31 RECORDING OF INFORMATION IN VESSEL'S LOGBOOK OR ENGINEERING RECORD BOOK

This procedure should ensure that the vessel's logbook or engineering record book provides a legal record of the movements and activities of a vessel.

This procedure should address the requirements in Clause 2.11.

NOTES: The level of detail required will be appropriate to the vessel.

B32 REPORTING OF INCIDENTS

This procedure should ensure that reports of incidents are made to authorities in a timely manner.

This procedure should address the following:

- a) The requirements for reporting in Clause 2.11.3.
- b) Reporting format required by the Authority.
- c) Records required by vessel operator.
- d) Records required by OH&S body.
- e) Communication.

B33 RESPONSIBILITIES OF CREW

This procedure should ensure that crew are familiar with their duties and responsibilities.

This procedure should address the following:

- a) Identify crew (number, qualifications, and role) required for the vessel and its operation.
- b) Identify delegations and command structure onboard vessel and with shore.
- c) Identify roles and duties for each person / position.
- d) Communication strategy.
- e) System and person for monitoring the safety of the vessel and ensuring appropriate resources are applied.
- f) Initial safety training as required by Clause 2.8.1.

- g) System for the Identification of hazards.
- h) System for identification of defects.

B34 INFORMATION FOR PASSENGERS

This procedure should ensure that passengers are provided with all information reasonable to enable them to minimise their exposure to risk while onboard.

This procedure should address the following:

- a) The requirements in Clauses 2.8.2, 3.8, and 3.10.
- b) Safety precautions onboard the vessel.
- c) Location of personal safety equipment on the vessel.
- d) Methods of signalling (alarms) emergency situations.
- e) Instructions on how to use the personal safety equipment.
- f) Actions to be taken by the person in the event of an emergency (i.e. proceed to emergency muster stations).
- g) Abandonment procedures.

Note: This may be best achieved via a safety briefing including a practical demonstration or, in larger commercial vessels, by viewing a pre-recorded video specific to the vessel/class of vessel. It is envisaged that the briefing could be modelled on an airline passenger safety briefing. For short-haul commuter services, alternative methods for presenting minimum safety information may include literature, signage, or a taped message on the public address system.

B35 SPECIFIC OPERATIONAL REQUIREMENTS

This procedure should ensure that vessels are prepared for, and crews trained in the operational tasks/requirements of the vessel

This procedure should address the following:

- a) Identify specific operational tasks of vessels (eg: fishing operations {streaming and recovery of gear, sorting, rigging gear etc}, cargo operations {including operation of loading and discharge operations}, passenger activities, entertainment, diving, sailing etc).
- b) Identify hazards specific to these operations.
- c) Eliminate or reduce specific hazards.
- d) Training.

B36 OPERATING LIFTING DEVICES

This procedure should ensure that lifting devices (i.e. cranes, derricks, booms, service elevators, and gantries) on the vessel are operated safely.

This procedure should address the following:

- a) Requirements for competent and trained personnel i.e.: licences.
- b) Legislative requirements.
- c) Manufacturer's recommendations for operation and maintenance.
- d) Maintenance schedule.
- e) Checks prior to operation.

- f) Safety procedures.
- g) Limitation by survey.

B37 CARGO OPERATIONS

This procedure should ensure that cargo is boarded and discharged safely, and secured safely before proceeding to sea to prevent movement while the vessel is under way. See also Annex B11 for dangerous goods and hazardous materials.

This procedure should address the following:

- a) Manufacturer's recommendations for operation and maintenance of cargo loading, discharging equipment and securing devices.
- b) Training requirements for operation of loading and discharging equipment.
- c) Systems to check arrangements before cargo operations.
- d) Systems to check security of cargo before the vessel departs the berth and during passage.
- e) Supervision and training for personnel securing cargo.

ANNEX C QUARTERLY OPERATIONAL SAFETY PROCEDURES CHECK-OFF FOR VESSELS WITH A VERBAL EMERGENCY PLAN

C1 SCOPE

This Annex C provides requirements for the check-off of verbal emergency plans. It forms a normative part of this Standard.

This Annex is referenced in Clause 3.7.3 of this Standard.

C2 CHECK LIST FOR A VERBAL EMERGENCY PLAN

C2.1 Components

The required components of a verbal emergency plan are shown in Table C1.

Table C.1 Components of a verbal emergency plan

Emergency preparation	Description
Assembly stations	There is a process for checking that all people on board can be accounted for and readied for further emergency actions.
Person overboard	Crew are practised at recovering a person from the water.
Fire	There is an organised response to a fire in any area of the vessel.
Collision/ grounding	There is an organised response for actions following a collision or grounding.
Flood	Crew are practised at response to a flood situation
Abandon ship	There is an organised response to a decision to evacuate the vessel.
Severe weather	There is a plan to secure the vessel in the event of severe weather.
Serious injury/medical emergency	There is a plan to provide medical assistance, obtain expert advice and provide evacuation

C2.2 Review

The owner or master shall confirm that the operation of the vessel complies with each item in Table C.1 and that the crew are competent to respond to the emergency situation listed.

The review shall be carried out every three months.

C2.3 Records

A record of the review shall be kept in the vessel's logbook or other suitable location where it is readily available for verification. The records shall include:

- a) The vessel's name or identification number.
- b) The name of the owner or master conducting the review.
- c) The date of the review.
- d) The components reviewed.

NOTE: A convenient way of recording a review is to use a pre-printed check list.

The review record and any supporting documentation shall be provided to an Authority or auditor upon request.

C2.4 Additional components

Masters or owners may choose to include additional material in the quarterly review. This additional material may assist in managing risk or ensuring the smooth running of the vessel. Some suggestions are given in Table C.2.

A sample form is provided in Annex E.

Table C.2 Optional additional components for review

Item	Description
Communications	The communications equipment is adequate, is in good order and working. It is regularly tested.
Navigation	Navigation equipment is adequate, is in good order and watchkeepers are competent with its use. It is regularly tested.
Search and rescue	Crew are trained at carrying out their duties should the vessel be involved in a search and rescue incident.
Dangerous goods and hazardous material	The carriage of dangerous goods and hazardous materials is managed to minimise risk to the people, vessel or the environment.
Working aloft or over the side	All crew understand the precautions when working aloft or over the side.
Working with lines	All crew understand the dangers and know how to work with lines under strain.
Operating plant and machinery	Crew are trained in the safe use of all plant and machinery as appropriate to their duties.
Refuelling	Any risk of pollution is minimised whilst refuelling.
Pumping of bilges	Arrangements permit the bilges to be kept clean and oil free to prevent the discharge of oil overboard.
Disposal of garbage, sewage and waste oil	Garbage, sewage and waste oil is routinely disposed of as required by law.
Anchoring on or near sensitive environments	Damage to sensitive environments through anchoring or other operations is minimised.
Record keeping	A log in an appropriate form is maintained along with other required records

ANNEX D DANGER MESSAGES

D1 SCOPE

This informative Annex provides recommended information to be included in danger messages.

This Annex is referenced in Clause 2.8.7.

D2 INFORMATION TO BE INCLUDED

D2.1 Hazardous floating objects

The following information is recommended in danger messages:

- a) A dangerous derelict, hazardous floating object, or any other direct danger to navigation.
- b) The kind of dangerous derelict, hazardous floating object, or direct danger observed.
- c) The position of the dangerous derelict, hazardous floating object, or any other direct danger when last observed.
- d) The time and date when danger last observed.

D2.2 Tropical storms

A report that a tropical storm has been encountered should be made. This obligation should be interpreted broadly, and information transmitted whenever the Master has good reason to believe that the storm is developing or exists in the vessel's neighbourhood.

Time, date and position of the vessel when the observation was taken and as much of the following information as is practicable should be included in the message:

- a) Barometric pressure, preferably corrected (stating millibars, millimetres, or inches, and whether corrected or uncorrected).
- b) Barometric tendency (the change in barometric pressure during the past three hours).
- c) True wind direction.
- d) Wind force (Beaufort scale).
- e) State of the sea (smooth, moderate, rough, high).
- f) Swell (slight, moderate, heavy) and the true direction from which it comes. Period or length of swell (short, average, long) would also be of value.
- g) True course and speed of vessel.

D2.3 Winds of force 10 or above on the Beaufort scale for which no storm warning has been received.

This applies to storms other than the tropical storms referred to in Clause D2.2. When such a storm is encountered, the message should contain similar information to that listed under Clause D2.2 but excluding the details about sea and swell.

D2.4 Sub-freezing air temperatures

The following information is required when encountering sub-freezing air temperatures, gale force winds and severe ice accretion on superstructures:

- a) Time and date.
- b) Air temperature.
- c) Sea temperature (if practicable).
- d) Wind force and direction.
- e) Subsequent observations

When a storm has been reported, and as long as the vessel remains under the influence of the storm, observations should be made and transmitted at intervals of not more than three hours. It would be desirable if observations were made and transmitted hourly.

ANNEX E FORMS
E1 SCOPE

This Annex provides some sample forms that could be used or adapted.

Form 1**EMERGENCY STATION LIST**

Name of Vessel: _____

Emergency Alarm Signal: _____

Order to Abandon Ship: _____

Crew Member Identification	Emergency Station	Emergency Duty Allocation

Date / /

Master

Safety Equipment maintenance

Substitute

Form 2

SURVIVAL CRAFT LIST

Name of Vessel: _____

Crew Member Identification	Survival Craft Station		Survival Craft Duty	
	Lifeboat	Life raft	Lifeboat	Life raft

Form 3

SAMPLE OPERATIONAL CHECKLIST

Vessel Name: _____ Owner: _____
 Period: From / / to: / /

Instructions for using the Operational Checklist:

Complete details in the above box.

Owner to confirm that the operation of the vessel complies with each item in the following table by signing in the appropriate right hand column at the end of month 3, 6, 9 and 12 after the annual survey.

This checklist is a guide and can be modified as required to reflect an owner's requirements provided mandatory requirements of Chapter 3 are addressed for all vessels to the extent that they apply.

Completed checklists should be maintained with the vessel's logbook and the completion of the checklist entered in the vessel's logbook.

Operational Checklist and supporting documentation shall be provided to Authority or auditor upon request.

Section 1 –Mandatory for all vessels

Item	NSCV Reference	Emergency preparation	Description	Months (initial)			
				1	2	3	4
1.1		Assembly stations	There is a process for checking that all people onboard can be accounted for and readied for further emergency actions.				
1.2		Person overboard	Crew are practised at recovering a person from the water.				
1.3		Fire	There is an organised response to a fire in any area of the vessel.				
1.4		Collision/grounding	There is an organised response for actions following a collision or grounding.				
1.5		Flood	Crew are practised at response to a flood situation				
1.6		Abandon ship	There is an organised response to a decision to evacuate the vessel.				
1.7		Severe weather	There is a plan to secure the vessel in the event of severe weather.				
1.8		Serious injury/medical emergency	There is a plan to provide medical assistance, obtain expert advice and provide evacuation				

Section 2 – NSCV Part E Annex B – Discretionary for all vessels

Item	NSCV Ref.	Seamanship	Description	Months (Initial)			
				1	2	3	4
2.1		Preparing for sea	The readiness of the vessel and crew and, the weather and crew are systematically checked prior to commencing operation.				
2.2		Watchkeeping	Manning and layout arrangements allow a safe watch to be kept at all times.				
2.3		Communications	The communications equipment is adequate, is in good order and working. It is regularly tested.				
2.4		Navigation	Navigation equipment is adequate, is in good order and watchkeepers are competent with its use. It is regularly tested.				
2.5		Search and rescue	Crew are trained at carrying out their duties should the vessel be involved in a search and rescue incident.				
2.6		Restricted visibility	The vessel crew are trained and practised at operating the vessel in restricted visibility				
2.7		Management of watertight integrity	Arrangements to prevent uncontrolled flooding are understood by each crewmember.				
2.8		Dangerous goods and hazardous material	The carriage of dangerous goods and hazardous materials is managed to minimise risk to the people, vessel or the environment.				
2.9		Manoeuvring and steering	Crew is practised at alternative steering arrangements.				
2.10		Mooring	Crew is practised at mooring the vessel.				
2.11		Anchoring	Crew is practised at anchoring the vessel.				
2.12		Towing	The crew are practised at rigging a tow.				
2.13		Transferring people to and from the vessel	Each crewmember is practiced at transferring people to and from the vessel.				
2.14		Operating boats and tenders	Crew required to work in boats and tenders have been trained in their safe operation.				
2.15		Working aloft or over the side	All crew understand the precautions when working aloft or over the side.				
2.16		Working with lines	All crew understand the dangers and know how to work with lines under strain.				
2.17		Passenger safety briefing	Passengers are provided with safety information to enable them to minimise their exposure to risk. (Passenger Safety Briefing).				
			(Add extra as required)				

Section 3 – NSCV Part E Annex B – Discretionary for all vessels

Item	NSCV Ref.	Machinery and maintenance	Description	Months (Initial)			
				1	2	3	4
3.1		Operating plant and machinery	Crew are trained in the safe use of all plant and machinery as appropriate to their duties.				
3.2		Refuelling	Any risk of pollution is minimised whilst refuelling.				
3.3		Pumping of bilges	Arrangements permit the bilges to be kept clean and oil free to prevent the discharge of oil overboard.				
3.4		Maintenance of the vessel, its plant and machinery	There is a regular system of maintenance to ensure the vessel, and all plant and machinery is in safe working order.				
3.5		Enclosed spaces	All crew understand the dangers of enclosed spaces onboard and wherever else their duties may require them to work. They understand the precautions required before entering.				
			(Add extra as required)				

Section 4 – NSCV Part E Annex B – Discretionary for all vessels

Item	NSCV Ref	Environment	Description	Months (Initial)			
				1	2	3	4
4.1		Disposal of garbage	Garbage is routinely disposed of as required by law.				
4.2		Disposal of waste oil	Waste oil is routinely disposed of as required by law.				
4.3		Disposal of sewage	Sewage is routinely disposed of as required by law.				
4.4		Noise pollution	Noise from a vessel is minimised and managed as required by law.				
4.5		Air pollution	Crew with responsibilities for operating machinery understand the importance of maintaining clean exhausts				
4.6		Anchoring on or near sensitive environments	Damage to sensitive environments through anchoring or other operations is minimised.				
			(Add extra as required)				

Section 5 – NSCV Part E Annex B – Discretionary for all vessels

Item	NSCV Ref.	Administration	Description	Months (Initial)			
				1	2	3	4
5.1		Records	Records are kept of the identity of each crewmember as required by the authority. Passengers onboard can be accounted for.				
5.2		Record keeping	A log in an appropriate form is maintained along with other required records				
5.3		Incident reporting	Incidents are reported as required by the Authority.				
5.4		Identification of hazards	All spaces on the vessel and the upper deck are routinely checked for slip and trip hazards and hazards to people.				
5.5		Crew training and responsibilities	Each crewmember understands their duties and is trained to competently perform their duties. Onboard Safety Training (Induction training) and drills have been carried out and are recorded.				
5.6		Record keeping	Records are kept of the routine operation of the vessel.				
			(Add extra as required)				

Office use only			
Checked at annual survey	By:	Port:	Date:
Checked at audit	By:	Port:	Date:
Checked at random audit	By:	Port:	Date: