Resolution A.742(18)

Adopted on 4 November 1993 (Agenda item 11)

PROCEDURES FOR THE CONTROL OF OPERATIONAL REQUIREMENTS RELATED TO THE SAFETY OF SHIPS AND POLLUTION PREVENTION

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety and the prevention and control of marine pollution from ships,

RECALLING ALSO resolution A.596(15), by which it requested the Maritime Safety Committee to develop, as a matter of urgency, guidelines, wherever relevant, concerning shipboard and shore-based management, and its decision to include in the work programme of the Maritime Safety Committee and the Marine Environment Protection Committee an item on shipboard and shore-based management for the safe operation of ships and for the prevention of marine pollution, respectively,

RECALLING FURTHER resolution A.680(17) on IMO Guidelines on Management for the Safe Operation of Ships and for Pollution Prevention, by which it invited all Governments to encourage those responsible for the operation of ships to take appropriate steps to develop, implement and assess safety and pollution-prevention management in accordance with guidelines pertaining thereto,

NOTING resolution A.481(XII), by which it adopted broad principles of safe manning, including guidelines for the application of these principles,

NOTING ALSO resolutions A.466(XII), A.542(13) and MEPC.26(23), containing procedures for the control of ships by port States on matters related to maritime safety and the prevention of marine pollution, respectively,

NOTING FURTHER that, in order to provide a legal basis for port State control of operational requirements, the Maritime Safety Committee has developed amendments to the International Convention for the Safety of Life at Sea (SOLAS), 1974, and the Marine Environment Protection Committee has developed amendments to the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), and that the proposed amendments to SOLAS 74 have been submitted to the Conference of SOLAS Contracting Governments scheduled to take place in May 1994 and those to MARPOL 73/78 to the Conference of MARPOL Parties scheduled to take place in October/November 1994, for consideration and adoption,

BEING AWARE that the aforementioned resolutions on procedures for the control of ships do not explicitly address either the influence of the human element on maritime safety or the prevention of marine pollution,

ACKNOWLEDGING the close interrelation between the human element and the safe operation of ships and the prevention of marine pollution,

ACKNOWLEDGING ALSO, with regard to foreign ships in their ports, the need for port States not only to monitor compliance at all times with applicable maritime safety and pollution-prevention standards, but also to include in their endeavours an assessment of the ability of ships' crews in respect of operational requirements relevant to their duties, especially with regard to passenger ships and ships which may present a special hazard,

RECOGNIZING that efforts by port States in these areas contribute to enhanced maritime safety and prevention of marine pollution,

RECOGNIZING FURTHER that resolution A.681(17) requests the Maritime Safety Committee and the Marine Environment Protection Committee to further develop and promulgate, as a matter of urgency, more detailed guidelines for the control of operational requirements related to the safety of ships and pollution prevention,

HAVING CONSIDERED the recommendations made by the Maritime Safety Committee at its sixty-second session and by the Marine Environment Protection Committee at its thirty-fourth session,

- 1. AGREES that, when there are clear grounds, as defined in the annex to the present resolution, for believing that the ship's officers and crew are not familiar with essential shipboard procedures, then port State control should be extended to include operational requirements in respect of the safety of ships and of pollution prevention;
- 2. ADOPTS the Procedures for the Control of Operational Requirements Related to the Safety of Ships and Pollution Prevention, set out in the annex to the present resolution, together with Guidelines for the Control of Operational Requirements Related to the Safety of Ships and Pollution Prevention, set out in the appendix to the annex to the present resolution;
- 3. REQUESTS the Maritime Safety Committee and the Marine Environment Protection Committee:
 - (a) to consider amalgamating with the present resolution the resolutions and recommendations on port State control listed in paragraph 4 of the annex to the present resolution; and
 - (b) to periodically review the procedures and guidelines in the light of experience gained;
- 4. INVITES Governments, when exercising port State control, to implement the aforementioned Procedures and Guidelines and to provide the Organization with information on their application;
- 5. REQUESTS the Secretary-General to circulate, when necessary, the updated information provided by Governments;
- 6. REVOKES resolution A.681(17).

Annex

PROCEDURES FOR THE CONTROL OF OPERATIONAL REQUIREMENTS RELATED TO THE SAFETY OF SHIPS AND POLLUTION PREVENTION

1 INTRODUCTION

- **1.1** The Contracting Governments of and the Parties to the International Convention for the Safety of Life at Sea, 1974, as amended (SOLAS 74), the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, (STCW 1978) have undertaken to give effect to the provisions of these Conventions in order to ensure that, from the point of view of safety of life, a ship is fit for the service for which it is intended and to prevent pollution of the marine environment by the discharge of harmful substances.
- **1.2** The primary responsibility for securing those objectives in relation to any particular ship rests with the Administration of the flag State. No attempt is made in this document to lay down guidelines for Administrations in this respect.
- **1.3** Regulation 19 of chapter I of SOLAS 74, article 5 of MARPOL 73/78 and article X of STCW 1978 provide for the control of foreign ships to be exercised by officers duly authorized by Contracting Governments or Parties, as appropriate.

- 1.4 Accidents involving passenger ships and ships carrying harmful substances have highlighted the need for good operational standards and on-board procedures. These standards and procedures are primarily the concern of flag States but it may be difficult for some Administrations to exercise full and continuous control of ships entitled to fly their flag under certain circumstances, such as the cargo the ship carries and the familiarity of the crew with the ship which can change completely between two successive flag State inspections and the fact that some ships do not regularly call at flag States' national ports.
- 1.5 In fulfilling their control obligations, port State authorities carry out inspections on foreign ships in their ports to check the validity of certificates and documents. In the absence of valid certificates or documents, or if there are clear grounds for believing that the condition of a ship or of its equipment, or its crew, does not substantially meet the requirements of a relevant instrument, a more detailed inspection may be carried out. It follows that, as port States have a legitimate interest in the safety of passengers and crew on board foreign ships calling at their ports and in the protection of the environment, it is necessary for them to include control of compliance with on-board operational requirements in their control procedures.
- 1.6 In this context, "clear grounds" for the application of relevant operational procedures means:
 - .1 evidence of operational shortcomings revealed during port State control procedures in accordance with SOLAS 74, MARPOL 73/78 and STCW 1978;
 - evidence of cargo and other operations not being conducted safely or in accordance with IMO guidelines;
 - .3 involvement of the ship in incidents due to failure to comply with operational requirements;
 - .4 evidence, from observation of a fire and abandon ship drill, that the crew are not familiar with essential procedures;
 - .5 absence of an up-to-date muster list;
 - **.6** indications that key crew members may not be able to communicate with each other or with other persons on board.
- **1.7** Nothing in these procedures should be construed as restricting the powers of any Contracting Government or Party to take measures within its jurisdiction in respect of any matter to which SOLAS 74, MARPOL 73/78 and STCW 1978 relate.
- **1.8** When exercising control of the compliance with operational requirements, all possible efforts should be made to avoid a ship being unduly detained or delayed. If a ship is thereby unduly detained or delayed, it should be entitled to compensation for any loss or damage suffered in accordance with procedures determined by the port State. In the event of dispute, the onus of proving that undue delay was not caused rests with the port State.
- **1.9** This document sets out procedures and guidelines for the control of operational requirements, for all ships under SOLAS 74, MARPOL 73/78 and STCW 78.

2 GUIDELINES FOR CONTROL OF OPERATIONAL REQUIREMENTS

When, during a port State control inspection, the control officer has clear grounds according to 1.6 above, the following on-board operational procedures may be checked in accordance with this resolution. However, in exercising controls recommended in these guidelines, the control officer should not include any operational tests or impose physical demands which, in the judgement of the master, could jeopardize the safety of the ship, crew, passengers, control officers or cargo.

It is not envisaged that all of these procedures would be checked during a single port State control inspection, unless the condition of the ship necessitates such a detailed inspection. In addition, these procedures are not intended to impose the seafarer certification programme of the port State on a ship entitled to fly the flag of another Party to the STCW Convention or to impose control procedures on foreign ships in excess of those imposed on ships of the port State.

Muster list

2.1 The control officer may determine if the crew members are aware of their duties indicated in the muster list.

Communication

2.2 The control officer may determine if the key crew members are able to communicate with each other, and with passengers as appropriate, in such a way that the safe operation of the ship is not impaired, especially in emergency situations.

Fire and abandon ship drills

2.3 The control officer witnessing a fire and abandon ship drill should ensure that the crew are familiar with their duties and the proper use of the ship's installations and equipment.

Damage control plan

2.4 The control officer may determine if a damage control plan is provided on a passenger ship and whether the crew are familiar with their duties and the proper use of the ship's installations and equipment for damage control purposes.

Fire control plan

2.5 The control officer may determine if a fire control plan or booklet is provided and whether the crew are familiar with the information given in the fire control plan or booklet.

Bridge operation

2.6 The control officer may determine if officers in charge of a navigational watch are familiar with bridge control and navigational equipment, changing the steering mode from automatic to manual and vice versa, and the ship's manoeuvring characteristics.

Cargo operation

2.7 The control officer may determine if ship's personnel assigned specific duties related to the cargo and cargo equipment are familiar with those duties, any dangers posed by the cargo and with the measures to be taken in such a context.

Operation of the machinery

- **2.8** The control officer may determine if responsible ship's personnel are familiar with their duties related to operating essential machinery such as:
 - .1 emergency and stand-by sources of electrical power;
 - .2 auxiliary steering gear;
 - .3 bilge and fire pumps; and
 - .4 any other equipment essential in emergency situations.

Manuals, instructions, etc.

2.9 The control officer may determine if the appropriate crew members are able to understand the information given in manuals, instructions, etc., relevant to the safe condition and operation of the ship and

its equipment and that they are aware of the requirements for maintenance, periodical testing, training and drills and of necessary log-book entries.

Oil and oily mixtures from machinery spaces

- **2.10** The control officer may determine if all operational requirements of Annex I of MARPOL 73/78 have been met, taking into account:
 - .1 the quantity of oil residues generated;
 - .2 the capacity of sludge and bilge-water holding tanks; and
 - .3 the capacity of the oily-water separator,

including the inspection of the Oil Record Book. The control officer may determine if reception facilities have been used and note any alleged inadequacy of such facilities.

Loading, unloading and cleaning procedures for cargo spaces of tankers

2.11 The control officer may determine if all operational requirements of Annexes I or II of MARPOL 73/78 have been met, taking into account the type of tanker and the type of cargo carried, including the inspection of the Oil Record Book and/or Cargo Record Book. The control officer may determine if the reception facilities have been used and note any alleged inadequacy of such facilities.

Dangerous goods and harmful substances in packaged form

2.12 The control officer may determine if the required shipping documents for the carriage of dangerous goods and harmful substances carried in packaged form are provided on board and whether the dangerous goods and harmful substances are properly stowed and segregated and the crew are familiar with the essential actions to be taken in an emergency involving such packaged cargo.

Garbage

2.13 The control officer may determine if all operational requirements of Annex V of MARPOL 73/78 have been met. The control officer may determine if the reception facilities have been used and note any alleged inadequacy of such facilities.

3 DEFICIENCIES

It is impracticable to define a ship as substandard solely by reference to a list of qualifying defects. Having assessed the extent to which operational requirements are complied with, the control officer then has to exercise his professional judgement to determine whether the operational proficiency of the crew as a whole is of a sufficient level to allow the ship to sail without danger to the ship or persons on board or presenting an unreasonable threat of harm to the marine environment. For this latter purpose, following the procedures set out in resolution A.481(XII), the ship may be detained.

4 OTHER RELEVANT PORT STATE CONTROL PROCEDURES

All other port State control procedures not explicitly dealt with in this annex shall be governed by the relevant recommendations in resolutions A.466(XII), A.481(XII), A.542(13) and MEPC.26(23).

Appendix

Guidelines for the control of operational requirements related to the safety of ships and pollution prevention

The following paragraphs give detailed guidelines on how control officers may carry out operational control, based on the provisions of the annex to this resolution.

When carrying out operational control, the control officer should ensure, as far as possible, no interference with normal shipboard operations, such as loading and unloading of cargo and ballasting, which is carried out under the responsibility of the master nor should the control officer require demonstration of operational aspects which would unnecessarily delay the ships concerned.

1 Muster list

- **1.1** The control officer may determine if the crew members are aware of their duties indicated in the muster list.
- **1.2** The control officer may ensure that muster lists are exhibited in conspicuous places throughout the ship, including the navigational bridge, the engine-room and the crew accommodation spaces. When determining if the muster list is in accordance with the regulations, the control officer may verify whether:
 - .1 the muster list shows the duties assigned to the different members of the crew;
 - .2 the muster list specifies which officers are assigned to ensure that life-saving and fire appliances are maintained in good condition and are ready for immediate use;
 - .3 the muster list specifies the substitutes for key persons who may become disabled, taking into account that different emergencies may call for different actions;
 - .4 the muster list shows the duties assigned to crew members in relation to passengers in case of emergency;
 - .5 the format of the muster list used on passenger ships is approved.
- **1.3** To determine whether the muster list is up-to-date, the control officer may require an up-to-date crew list, if available, to verify this. Other possible means, e.g. Safe Manning Document, may be used for this purpose.
- 1.4 The control officer may determine whether the duties assigned to crew members manning the survival craft (lifeboats or liferafts) are in accordance with the regulations and verify that a deck officer or certified person is placed in charge of each survival craft to be used. However, the Administration (of the flag State), having due regard to the nature of the voyage, the number of persons on board and the characteristics of the ship, may permit persons practised in the handling and operation of liferafts to be placed in charge of liferafts in lieu of persons qualified as above. A second-in-command shall also be nominated in the case of lifeboats.
- **1.5** The control officer may determine whether the crew members are familiar with the duties assigned to them in the muster list and are aware of the locations where they should perform their duties.

2 Communication

- **2.1** The control officer may determine if the key crew members are able to communicate with each other, and with the passengers as appropriate, in such a way that the safe operation of the ship is not impaired, especially in emergency operations.
- 2.2 The control officer may ask the master which languages are used as the working languages.

2.3 The control officer may ensure that the key crew members are able to understand each other during the inspection or drills. Key crew members assigned to assist passengers should be able to give the necessary information to the passengers in case of an emergency.

3 Fire and abandon ship drills

3.1 The control officer witnessing a fire or abandon ship drill should ensure that the crew are familiar with their duties and the proper use of the ship's installations and equipment.

3.2 Fire drills

- **3.2.1** The control officer may witness a fire drill carried out by the crew assigned to these duties on the muster list. After consultation with the master of the vessel, one or more specific locations of the ship may be selected for a simulated fire. A crew member may be sent to the location(s) and activate a fire alarm system or use other means to give alarm.
- 3.2.2 At the location, the control officer can describe the fire indication to the crew member and observe how the report of fire is relayed to the bridge or damage control centre. At this point most ships will sound the crew alarm to summon the fire-fighting parties to their stations. The control officer should observe the fire-fighting party arriving on the scene, breaking out their equipment and fighting the simulated fire. Team leaders should be giving orders as appropriate to their crews and passing the word back to the bridge or damage control centre on the conditions. The fire-fighting crews should be observed for proper donning and the use of their equipment. The control officer should make sure that all the gear is complete. Merely mustering the crew with their gear is not acceptable. Crew response to personnel injuries can be checked by selecting a crew member as a simulated casualty. The control officer should observe how the word is passed and the response of stretcher and medical teams. Handling a stretcher properly through narrow passageways, doors and stairways is difficult and takes practice.
- 3.2.3 The drill should, as far as practicable, be conducted as if there were an actual emergency.
- **3.2.4** Those crew members assigned to other duties related to a fire drill, such as the manning of the emergency generators, the CO_2 room, the sprinkler and emergency fire pumps, should also be involved in the inspection. The control officer may ask these crew members to explain their duties and if possible to demonstrate their familiarity.
- 3.2.5 On passenger ships, special attention should be paid to the duties of those crew members assigned to the closing of manually operated doors and fire dampers. These closing devices should be operated by the responsible persons in the areas of the simulated fire(s) during the drill. Crew members not assigned to the fire-fighting teams are generally assigned to locations throughout the passenger accommodations to assist in passenger evacuation. These crew members should be asked to explain their duties and the meaning of the various emergency signals and asked to point out the two means of escape from the area, and where the passengers are to report. Crew members assigned to assist passengers should be able to communicate at least enough information to direct a passenger to the proper muster area.

3.3 Abandon ship drills

After consultation with the master, the control officer may require an abandon ship drill for one or more survival craft. The essence of this drill is that the survival craft are manned and operated by the crew members assigned to them on the muster list. If possible, the control officer should include the rescue boat(s) in this drill. SOLAS 74, chapter III, gives specific requirements on abandon ship training and drills, of which the following principles are particularly relevant:

.1 The drill should, as far as practicable, be conducted as if there were an actual emergency.

- .2 The abandon ship drill should include:
 - .2.1 summoning of (passengers and) crew to the muster station(s) with the required alarm and ensuring that they are aware of the order to abandon ship as specified in the muster list;
 - .2.2 reporting to the stations and preparing for the duties described in the muster list;
 - .2.3 checking that (passengers and) crew are suitably dressed;
 - .2.4 checking that lifejackets are correctly donned;
 - .2.5 lowering of at least one lifeboat after the necessary preparation for launching;
 - .2.6 starting and operating the lifeboat engine; and
 - .2.7 operation of the davits used for launching liferafts.
- .3 If the lifeboat lowered during the drill is not the rescue boat, the rescue boat should be lowered as well, taking into account that it is boarded and launched in the shortest possible time. The control officer should ensure that crew members are familiar with the duties assigned to them during abandon ship operations and that the crew member in charge of the survival craft has complete knowledge of the operation and equipment of the survival craft.
- .4 Each survival craft should be stowed in a state of continuous readiness so that two crew members can carry out preparations for embarking and launching in less than 5 minutes.
- .5 On passenger ships, it is required that lifeboats and davit-launched liferafts are capable of being launched within a period of 30 minutes.
- **.6** On cargo ships, it is required that lifeboats and davit-launched liferafts are capable of being launched within a period of 10 minutes.

4 Damage control plan

- **4.1** The control officer may determine if a damage control plan is provided on a passenger ship and whether the crew are familiar with their duties and the proper use of the ship's installations and equipment for damage control purposes.
- **4.2** The control officer may determine if the officers of the ship are aware of the contents of the damage control booklet which should be available to them, or of the damage control plan.
- **4.3** The officers may be asked to explain the action to be taken in various damage conditions.
- **4.4** The officers may also be asked to explain about the boundaries of the watertight compartments, the openings therein with the means of closure and position of any controls thereof and the arrangements for the correction of any list due to flooding.
- **4.5** The officers should have a sound knowledge of the effect of trim and stability of their ship in the event of damage to and consequent flooding of a compartment and counter-measures to be taken.

5 Fire control plan

- **5.1** The control officer may determine if a fire control plan or booklet is provided and whether the crew are familiar with the information given in the fire control plan or booklet.
- **5.2** The control officer may verify that fire control plans are permanently exhibited for the guidance of the ship's officers. Alternatively, booklets containing the information of the fire control plan may be supplied to each officer, and one copy should at all times be available on board in an accessible position. Plans and booklets should be kept up-to-date, any alterations being recorded thereon as soon as possible.
- **5.3** The control officer may determine that the responsible officers, especially those who are assigned to related duties on the muster list, are aware of the information provided by the fire control plan or booklet and how to act in case of a fire.

5.4 The control officer may ensure that the officers in charge of the ship are familiar with the principal structural members which form part of the various fire sections and the means of access to the different compartments.

6 Bridge operation

- **6.1** The control officer may determine if officers in charge of a navigational watch are familiar with bridge control and navigational equipment, changing the steering mode from automatic to manual and vice versa, and the ship's manoeuvring characteristics.
- **6.2** The officer in charge of a navigational watch should have knowledge of the location and operation of all safety and navigational equipment. Moreover, he should be familiar with procedures which apply to the navigation of the ship in all circumstances and he should be aware of all information available to him.
- **6.3** The control officer may also verify the familiarity of the officers on all the information available to them such as manoeuvring characteristics of the ship, life-saving signals, up-to-date nautical publications, checklists concerning bridge procedures, instructions, manuals, etc.
- **6.4** The control officer may verify the familiarity of the officers with procedures such as periodical tests and checks of equipment, preparations for arrival and departure, change-over of steering modes, signalling, communications, manoeuvring, emergencies and log-book entries.

7 Cargo operations

- 7.1 The control officer may determine if ship's personnel assigned specific duties related to the cargo and cargo equipment are familiar with those duties and the dangers posed by the cargo and with the measures to be taken in such a context.
- **7.2** With respect to the carriage of solid bulk cargoes, the control officer may determine whether cargo operations are conducted in a manner such as to not overstress or damage the structure of the ship.
- **7.3** The control officer, when appropriate, may determine whether the responsible crew members are familiar with the relevant provisions of the Code of Safe Practice for Solid Bulk Cargoes, particularly those concerning moisture limits and trimming of the cargo, the Code of Safe Practice for Ships carrying Timber Deck Cargoes and the Code of Safe Practice for Cargo Stowage and Securing.
- **7.4** Some solid materials transported in bulk can present a hazard during transport because of their chemical nature or physical properties. Section 2 of the Code of Safe Practice for Solid Bulk Cargoes gives general precautions. Section 4 of the Code of Safe Practice for Solid Bulk Cargoes contains the obligation imposed on the shipper to provide all necessary information to ensure a safe transport of the cargo. The control officer may determine whether all relevant details, including all relevant certificates of tests, have been provided to the master from the shipper.
- **7.5** For some cargoes, such as cargoes which are subject to liquefaction, special precautions are given (see section 7 of the Bulk Code). The control officer may determine whether all precautions are met with special attention to the stability of those vessels engaged in the transport of cargoes subject to liquefaction and solid hazardous waste in bulk.
- **7.6** Officers responsible for cargo handling and operation and key crew members of oil tankers, chemical tankers and liquefied gas carriers should be familiar with the cargo and cargo equipment and with the safety measures as stipulated in the relevant sections of the IBC and IGC Codes.
- **7.7** For the carriage of grain in bulk, reference is made to Part C, chapter VI of SOLAS 74 and the International Code for the Safe Carriage of Grain in Bulk (resolution MSC.23(59)).
- **7.8** The control officer may determine whether the operations and loading manuals include all the relevant information for safe loading and unloading operations in port as well as in transit conditions.

8 Operation of machinery

- **8.1** The control officer may determine if responsible ship's personnel are familiar with their duties related to operating essential machinery, such as:
 - .1 emergency and stand-by sources of electrical power;
 - .2 auxiliary steering gear;
 - .3 bilge and fire pumps; and
 - .4 any other equipment essential in emergency situations.
- **8.2** The control officer may verify whether the responsible ships personnel are familiar with, *inter alia*, *Emergency generator:*
 - actions which are necessary before the engine can be started
 - different possibilities to start the engine in combination with the source of starting energy
 - procedures when the first attempts to start the engine fail

Stand-by generator engine:

- possibilities to start the stand-by engine, automatically or by hand
- blackout procedures
- load sharing system
- 8.3 The control officer may verify whether the responsible ship's personnel are familiar with, inter alia,
 - which type of auxiliary steering gear system applies to the ship
 - how it is indicated which steering gear unit is in operation
 - what action is needed to bring the auxiliary steering gear into operation
- **8.4** The control officer may verify whether the responsible ship's personnel are familiar with, *inter alia*, *Bilge pumps*:
 - number and location of bilge pumps installed on board the ship (including emergency bilge pumps)
 - starting procedures for all these bilge pumps
 - appropriate valves to operate
 - most likely causes of failure of bilge pump operation and their possible remedies

Fire pumps:

- number and location of fire pumps installed on board the ship (including the emergency fire pump)
- starting procedures for all these pumps
- appropriate valves to operate
- 8.5 The control officer may verify whether the responsible ship's personnel are familiar with, inter alia,
 - starting and maintenance of lifeboat engine and/or rescue boat engine
 - local control procedures for those systems which are normally controlled from the navigating bridge
 - use of the emergency and fully independent sources of electrical power of radio installations
 - maintenance procedures for batteries

- emergency stops, fire detection system and alarm system, operation of watertight and fire doors (stored energy systems)
- change of control from automatic to manual for cooling water and lube oil systems for main and auxiliary engines.

9 Manuals, instructions, etc.

- **9.1** The control officer may determine if the appropriate crew members are able to understand the information given in manuals, instructions, etc., relevant to the safe condition of the ship and its equipment and that they are aware of the requirements for maintenance, periodical testing, training, drills and recording of log-book entries.
- **9.2** The following information should, *inter alia*, be provided on board and control officers may determine whether it is in a language or languages understood by the crew and whether crew members concerned are aware of the contents and are able to respond accordingly:
 - .1 instructions concerning the maintenance and operation of all the equipment and installations on board for the fighting and containment of fire should be kept under one cover, readily available in an accessible position;
 - .2 clear instructions to be followed in the event of an emergency for every person on board;
 - .3 illustrations and instructions in appropriate languages in passenger cabins and conspicuously displayed at muster stations and other passenger spaces to inform passengers of their muster station, the essential actions they must take in an emergency and the method of donning lifejackets;
 - .4 posters and signs on or in the vicinity of survival craft and their launching controls illustrating the purpose of controls and the procedures for operating the appliance and giving relevant instructions or warnings;
 - .5 instructions for on-board maintenance of life-saving appliances;
 - .6 training manuals in each crew messroom and recreation room or in each crew cabin. The training manual, which may comprise several volumes, should contain instructions and information, in easily understood terms, illustrated wherever possible, on the life-saving appliances provided in the ship and on the best method of survival;
 - .7 Shipboard Oil Pollution Emergency Plan in accordance with MARPOL 73/78, Annex I, regulation 26;
 - **.8** stability booklet, associated stability plans and stability information.

10 Oil and oily mixtures from machinery spaces

- **10.1** The control officer may determine if all operational requirements of Annex I of MARPOL 73/78 have been met, taking into account:
- .1 the quantity of oil residues generated;
- .2 the capacity of sludge and bilge-water holding tank(s); and
- .3 the capacity of the oily-water separator,

including the inspection of the Oil Record Book. The control officer may determine if reception facilities have been used and note any alleged inadequacy of such facilities.

- 10.2 The control officer may determine whether the responsible officer is familiar with the handling of sludge and bilge-water. The relevant items from the guidelines for systems for handling oily wastes in machinery spaces of ships may be used as guidance. Taking into account the above, the control officer may determine if the ullage of the sludge tank is sufficient for the expected generated sludge during the next intended voyage. The control officer may verify that, in respect of ships for which the Administration has waived the requirements of regulation 16(1) and (2), all oily bilge-water is retained on board for subsequent discharge to a reception facility.
- 10.3 When reception facilities in other ports have not been used because of inadequacy, the control officer should advise the master to report the inadequacy of the reception facility to his own flag State, in conformity with MEPC/Circ. 215 of 25 April 1989.

11 Loading, unloading and cleaning procedures for cargo spaces of tankers

- 11.1 The control officer may determine if all operational requirements of Annex I or II of MARPOL 73/78 have been met, taking into account the type of tanker and the type of cargo carried, including the inspection of the Oil Record Book and/or Cargo Record Book. The control officer may determine if the reception facilities have been used and note any inadequacy of such facilities.
- **11.2** For the control on loading, unloading and cleaning procedures for tankers carrying oil, reference is made to resolution A.542(13), i.e. Procedures for the Control of Ships and Discharges under Annex I of MARPOL 73/78. In chapter 4 of the said Procedures, guidance is given for the inspection of crude oil washing (COW) operations. In appendix 3 the control officer may find detailed guidelines for in-port inspection of crude oil washing procedures.
- **11.3** For the control on loading, unloading and cleaning procedures for tankers carrying noxious liquid substances, reference is made to resolution MEPC.26(23), i.e. Procedures for the Control of Ships and Discharges under Annex II of MARPOL 73/78. In chapter 4 of the said Procedures, guidance is given for the inspection of unloading, stripping and prewash operations. In appendix 3 more detailed guidelines for these inspections are given.
- **11.4** When reception facilities in other ports have not been used because of inadequacy, the control officer should advise the master to report the inadequacy of the reception facility to his own flag State, in conformity with MEPC/Circ. 215 of 25 April 1989.

12 Dangerous goods and harmful substances in packaged form

- 12.1 The control officer may determine if the required shipping documents for the carriage of dangerous goods and harmful substances carried in packaged form are provided on board and whether the dangerous goods and harmful substances are properly stowed and segregated and the appropriate crew members are familiar with the essential actions to be taken in an emergency involving such packaged cargo.
- 12.2 Ship types and cargo spaces of ships built after 1 September 1984 intended for the carriage of dangerous goods should comply with the requirements of SOLAS regulation II-2/54, in addition to the requirements of regulation II-2/53 (for cargo ships) and the requirements of regulations II-2/3 and II-2/39 (for passenger ships), unless such requirements have already been met by compliance with requirements elsewhere in the Convention. The only exemption is when dangerous goods in limited quantities are carried.
- 12.3 Annex III of MARPOL 73/78 contains requirements for the carriage of harmful substances in packaged form which are identified in the IMDG Code as marine pollutants. Cargoes which are determined to be marine pollutants should be labelled and stowed in accordance with Annex III of MARPOL 73/78.
- **12.4** The control officer may determine whether a Document of Compliance is on board and whether the ship's personnel are familiar with this document provided by the Administration as evidence of compliance of construction and equipment with the requirements. Additional control may consist of:

- control whether the dangerous goods have been stowed on board in conformity with the Document of Compliance, using the dangerous goods manifest or the stowage plan required by SOLAS chapter VII. This manifest or stowage plan may be combined with the one required under Annex III;
- control whether inadvertent pumping of leaking flammable or toxic liquids is not possible in case these substances are carried in under-deck cargo spaces;
- determining whether the ship's personnel are familiar with the relevant provisions of the Medical First Aid Guide and Emergency Procedures for Ships Carrying Dangerous Goods.

13 Garbage

- **13.1** The control officer may determine if all operational requirements of Annex V of MARPOL 73/78 have been met. The control officer may determine if the reception facilities have been used and note any alleged inadequacy of such facilities.
- **13.2** "Guidelines for the implementation of Annex V of MARPOL 73/78" were approved by the MEPC at its twenty-ninth session and have been published. One of the objectives of these guidelines is: "to assist vessel operators in complying with the requirements set forth in Annex V and domestic laws".
- 13.3 The control officer may determine whether:
 - ship's personnel are aware of these Guidelines, in particular section 3 "Minimizing the amount of potential garbage" and section 4 "Shipboard garbage handling and storage procedures";
 - ship's personnel are familiar with the disposal and discharge requirements under Annex V inside and outside a Special Area and are aware of the Areas determined as Special Areas under Annex V.
- 13.4 When reception facilities in other ports have not been used because of inadequacy, the control officer should advise the master to report the inadequacy of the reception facility to his own flag State, in conformity with MEPC/Circ. 215 of 25 April 1989.