

**PHILIPPINE MERCHANT MARINE
RULES AND REGULATIONS
(PMMRR)**

1997



Republic of the Philippines
Department of Transportation and Communications
MARITIME INDUSTRY AUTHORITY

FOREWORD

Safety impinges on the construction and operation of ship, loadlines, loading, manning, navigation and enforcement of rules and regulations. Accidents are caused by other factors, including public apathy and laxity of enforcers, but human element play a vital link. There was a felt need to revise the existing RPMRR of 1976, which has been in effect since October 1976. The 1976 RPMRR is based on the International Convention which is more than 35 years old, taking into account that SOLAS 60 was deliberated in the 1950s after the organization of the International Maritime Organization (1958) in 1958. The 1960 SOLAS was replaced by the 1974 SOLAS, as amended. There were several technological advances in shipping. Ships were built with bigger tonnage and faster operating speed and by 1970s, Very Large Crude Carriers (VLCCs) or Ultra Large Crude Carriers (ULCCs) and other specialized or special purpose ships were introduced into the sea. New Maritime Conventions were adopted and old ones amended setting new safety standards. World trade had increased and ships had risen. The latest amendments to SOLAS 1974, in 1994, relate to International Management Code for the Safe Operation of Ships and for Pollution Prevention (International Safety Management (ISM) Code); High Speed Crafts; Global Maritime Distress and Safety System (GMDSS); safety of RO-Ro ships, safety of navigation, protection of the maritime environment, tankers, bulk carriers, and satellite communications. The 1976 RPMRR, which is considered to be obsolete and unresponsive to the need for the safety of life at sea and the protection of the marine environment do not cover these and others. Past attempts to revise the existing 1976 PMRR failed due to factors beyond control. When the safety function was transferred from PCG to MARINA, under E.O. 125/125A, the burden of revising the 1976 RPMRR was placed on the MARINA.

The strategy of relevant maritime administration is to weed out unseaworthy ships; majority of them belongs to a class of ships called non-convention-sized ships. Generally, ships below 500 gross tonnage or below 24 meters in length. The 1997 RPMRR seeks to address them. These ships are not covered by the safety standards provided for under SOLAS 1974, as amended, international conventions on load lines, tonnage measurement, and marine pollution prevention. Accidents often resulted to tragic loss of life and property and destruction of the marine environment. The 1997 RPMRR applies to all ships registered in the Philippines, whether engaged in international or domestic voyages. Exempted are those ships mentioned in Chapter I. Motorized boats with outriggers engaged to transport goods and/or passenger for hire will be covered by a Memorandum Circular to be issued later by the MARINA. This Approach is suggested considering that at present the

1976 RPMRR prohibits them to carry passengers for hire but these boats are the only mode of transport in the rural areas. At present motorized boats with outriggers are issued authority by the MARINA under Public Service Act, as amended.

The Revision Committee considered the IMO Model Code, relevant national laws, rules and regulations, SOLAS 1974, as amended, Load Lines, Tonnages, STCW and ILO Convention, among other conventions. The Committee was able to finally put in one "Volume" of the PMRR, by December 1996, after more than one year of Committee/subsectoral meetings, with the following modifications over the RPMRR 1976, as follows:

1. The PMRR of 1997 is divided into 19 Chapters subdivided into Regulations, instead of chronologically numbered section.
2. It has a new Chapter on High Speed Craft.
3. The categories of ships are divided into three, namely; Category I – Ships Engaged in International Voyage, Category II – Ships Engaged in Coastwise Voyage, Category III – Ships Engaged in Harbor Bay, Lake and River Voyage.
4. The Tables of Safe Manning are general manning subject to reduction/addition, as the case maybe.
5. The inclusion of the Training and Certification of Seafarers/personnel pursuant to STCW 1978 as amended.
6. The coverage of each Chapter as follows:

Chapter I – General Provisions

Chapter I deals with general provisions, definitions, scope, exemptions, equivalents, and matters of general nature, categories and classes of vessels, repair alterations and modifications, and statement of adherence to international convention.

It also includes repealing and effectivity clauses. The 1997 PMRR shall become effective after its publication in the Official Gazette, or publication in a newspaper of general publication in the Philippines.

In short, Convention-sized ships (500 gt above) shall automatically comply with standards of the SOLAS, 1974, as amended and the 1997 PMRR in suppletory character; while the non-convention-sized ships (499 gt and below) shall comply with the PMRR, 1997.

Chapter II – Survey and Certificate

Chapter II contains the requirements for surveys and certificates. It requires initial, renewal, periodic, intermediate, annual, additional surveys; inspection of hulls; drydocking; maintenance of condition after

surveys, issuance of certificate, duration of validity of said certificates. The forms of these certificates are in accordance with the models set out in the Appendix. (Basically, from the IMO Model Code).

Chapter III – Construction and Equipment

Chapter III deals with construction and equipment collision bulkheads, weather tightness, application to existing ship or new ship, the latter to comply with the PMMRR 1997 and the former with existing requirements, and where no such requirements, such ship shall comply with the PMMRR 1997 to the extent the Administration considers reasonable and practicable. It also includes means of sounding, anchoring and mooring equipment, towing and pushing arrangements, measures against accidents (Basically from the IMO Model Code).

Chapter IV – Stability

Chapter IV contains requirements for intact stability, subdivision and damage stability, inclining tests and stability information, bilge pumping arrangements. Ships of 24 meters and above in length, shall comply with the applicable intact stability requirements for ships, specified in the Stability Code or comply with the equivalent stability standards adopted by the Administration, unless compliance therewith renders it impracticable due to ship's characteristics. Ships are required to undergo an inclining test upon completion and have suitable stability information. (Basically from the IMO Model Code).

Chapter V – Machinery Installations

Chapter V deals with the machinery installations for ships propelled by mechanical means and manned barges (but not to unmanned barges). It contains general requirements on all boilers and other pressure vessels, parts of machinery; all steam, hydraulics, pneumatic and other systems and their associated fittings, to be subjected to appropriate tests including a pressure test before being put into service. Other provisions on a more specific requirement include machinery controls, remote control of propulsion machinery, ventilation systems in machinery spaces, protection against noise, means of going astern, steering gear, and communication between navigating bridge and machinery spaces, and engineer's alarm. (Basically, from the IMO Model Code).

Chapter VI – Electrical Installations

Chapter VI deals with electrical installation. Safety precautions for exposed metal parts of electrical machines and equipment, which are not intended to be live but which are liable under fault conditions to become live etc., construction of electrical apparatus arrangement of main emergency switchboard, distribution system, electrical cables and wiring external to equipment, main source of

electrical power, emergency source of electrical power, special considerations. (Basically from the IMO Model Code).

Chapter VII – Fire Protection and Fire Extinction

Chapter VII contains requirements for fire protection and fire extinction.

Each ship shall be provided with at least one independent power operated fire pump, capable of delivering a jet of water as required in the chapter. In ships of 150 gt and above propelled by mechanical means, such pump shall be operated by means other than the propulsion machinery of the ship. Different fire pumps are described, and requirement for fire mains, water service pipes and fire hydrants, fire hoses and nozzles, portable fire extinguisher – general requirements, which shall be of approved types of design, portable fire extinguisher which must be sufficient in number in each ship, according to length, fixed fire extinguishing system in machinery spaces, fireman's outfit, fireman's axe, fire control plan, fire protection and acceptance of substitutes. (Basically from IMO Model Code).

Chapter VIII – Fire Safety Measures

Chapter VIII contains fire safety measures applicable to ships and manned barges which are provided with machinery spaces of Category A, as defined in Chapter I, and for ships and manned barges with machinery spaces other than machinery spaces of Category A, shall comply with the provisions of this chapter to the satisfaction of the Administration. Requirements for structural fire protection, means of escape, ventilation of tanks and cofferdams, pipes and fittings, carriage of oxygen, acetylene, and other flammable gases in cylinders, carriage of dangerous goods for ship's use, fire protection arrangements in cargo spaces, fire safety measures for tankers, carriage of dangerous goods in ships and barges. (Basically, from IMO Model Code).

Chapter IX – Life-Saving Appliances

Chapter IX deals with life-saving appliances. Ships shall have life jackets; life bouys; thermal protection aids, if applicable; radar transponders, liferafts and hydrostatic release units; muster and abandon ships drill training; locating equipment specified under GMDSS. In general, life-saving appliances shall comply with the technical specifications of Chapter II SOLAS 1974, as amended; otherwise, to the satisfaction of the Administration.

This Chapter requires each ship and manned barges to carry the communications equipment; at least two-way VHF radiotelephone apparatus; at least one radar transponder to be stowed in survival craft; one satellite emergency position indicating radio beacons (EPIRBs): at least rocket flares on the bridge. Reference is made to various IMO Codes or

recommendations; stowage of survival crafts, markings and operational readiness, maintenance and inspection (Basically, from IMO Model Code).

Chapter X – Radio Communications

Chapter X deals with Radio Communications. By 01 February 1999, ships and manned barges above 300gt shall comply with the requirements of this Chapter.

Existing and new ships below 300 gt are exempted and may otherwise use other installations as prescribed by the telecommunications authority.

Each ship and manned barge covered by the Regulations X/1 (1 and 3) while at sea, shall be provided with radio installations capable of complying with the functional requirements identified in Reg X/2 throughout its intended voyage for the sea or areas through which it will pass during the intended voyage.

It provides for requirements on radio installations, watches, maintenance, radio equipment to be carried on board, and describes radio equipment in sea area A1; A1 and A2; A1, A2, and A3; A1, A2, A3 and A4, sources of energy and radio logs, (Elaborated by the Committee, from the IMO Model Code).

Chapter XI – Safety of Navigation

Chapter XI deals with safety of navigation and applies to ships including those towed or pushed by a tug or other such ships, and they shall comply with regulations relating to the prevention of collisions (COLREG) and the routing measures adopted by the IMO. The subject covered include danger messages, routing, misuse of distress signals, obligations and procedures for sending distress messages, signaling lamps, shipborne navigational equipment, nautical publications, international code of signals, and life-saving signals. (Basically, from the IMO Model Codes/SOLAS 1974).

Chapter XII – Safety of Special Purpose Ships

Chapter XII applies to special purpose ships. Special purpose ships are defined in Chapter I and, in the Code for Special Purpose Ships adopted by the IMO. Special Purpose Ships include: ships engaged in research, expedition survey; training ships; fish factory ships; ship engaged in processing of fish or other living resources at sea, not being engaged in catching fish itself. (IMO Model Code).

Chapter XIII – Assignment of Loadlines

Chapter XIII adopts the International Convention on Load Lines, 1966, for ships more than 24 meters in length in the assignment of load lines.

Ships and barges between 15 meters and 24 meters in length which are not governed by the Load

Lines Convention, 1966 shall comply with this Chapter. Nothing in this Chapter will prevent the Administration from assigning a freeboard greater than the minimum freeboard determined in accordance with Chapter XIV. In general this Chapter deals on submersion, survey and certification, strength of ships, assumptions, deck line, load line marks, assigning authority, details of marking, assigning authority details of marking information to be supplied to the master, doors, position of hatchways, materials for weathertight covers, machinery space openings, openings in freeboard and superstructure decks, air pipes, cargo ports and other similar openings, scuppers, inlets and discharges, side scuttles, windows and other openings, freeing ports, protection of the crew and passengers, special condition of assignment for tankers. (Basically, from the IMO Model Code with amendments).

Chapter XIV – Freeboard

This Chapter adopts the International Convention on Load Lines, 1966, relative to freeboard. The words *freeboard assigned* and *freeboard deck* are defined in Chapter I.

This chapter also provides for the formula for arriving at the basic freeboard for ships between 15 meters and 24 meters in length, and correction of freeboard. (Basically, from the IMO Model Code).

Chapter XV – Registration, Documentation and Licensing of Ships

This chapter deals with the registration, documentation and licensing of ships, which applies to all types of motorized ships of domestic ownership of more than 3 gt; and all ships of domestic ownership engaged in towing/pushing or carrying of goods and/or passenger for hire regardless of tonnage.

This Chapter provides for registration of ships, issuance of CPR, CO, change of ownership, procedure for registration, change of name, official number and marking, ship register, registration and deletion of ships from Philippine registry, procedure, deletion of certificate, perfection and date of deletion of ships from Philippine Registry, restrictions on re-registration of shipwrecked or abandoned ships, re-registration of ships previously deleted, issuance of CWL, BRL, PYL, documentary requirements, renewal, transfer, revocation of license, registration of mortgages (Committee Origination).

Chapter XVI – Prevention of Marine Pollution

This is one paragraph chapter making reference to MARPOL 73/78. Where the Administration considers the provision relating to construction and equipment unreasonable and impracticable, it may exempt ships from such provisions, and accept equivalent protection against pollution of the marine environment, (IMO Model Code).

Chapter XVII – High Speed Craft

This Chapter adopts the High Speed craft Code (HSC) under IMO MSC Res. No. 36 (63) dated 20 May 1994, and shall apply to passenger high speed craft 500 GT or below or cargo high speed craft of 500 gt above. (Committee Origination).

Chapter XVIII – Minimum Safe Manning

This Chapter sets forth the minimum safe manning requirements and defines the duties and responsibilities of officers and ratings in consonance with the provisions of STCW Convention, 1978/1995; IMO Resolution A, 481 (XII), the Code of commerce, Tariff and Customs Code, E. O. No. 125/125-A (Committee Origination).

Chapter XIX – Maritime Investigation and Disciplinary Proceedings

This Chapter deals with maritime investigation and disciplinary proceedings; report or marine casualty, procedure of investigation, against shipowners/company or suspension or revocation.

Non-issuance, preventive suspension, reinstatement of MARINA issued endorsement of STCW related certificates or Seafarers Identification and Record Books (SIRB). (Committee Origination).

Chair
Revision Committee

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6. Maritime Lawyers Association of the Philippines (MARLAW)
7. Philippine Petroleum Sea Transport Association (PHILFESTA)
8. Masters and Mates Associations of the Philippines (MAMAP)
9. Federation of Fishing Associations of Western Visayas
10. Inter-island Deepsea Fishing Association
11. Conference of Maritime Manning Agencies
12. United Filipino Seafarers Union
13. Philippine Association of Maritime Institutions
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16. International Maritime Association of the Philippines (INTERMAP)
17. Cebu Harbor Pilot Association

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Appendix A – AMENDMENTS

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Appendix B – CERTIFICATES

- Passenger Ship Safety Certificate
- Cargo Ship Safety Equipment Certificate
- Cargo Ship Safety Construction Certificate
- Exemption Certificate
- Manning Certificate
- International Tonnage Certificate

Republic of the Philippines
Department of Transportation and
Communications
MARITIME INDUSTRY AUTHORITY
Manila

**PHILIPPINE MERCHANT MARINE RULES
AND REGULATIONS
(PMMRR)
1997**

The MARITIME INDUSTRY AUTHORITY
BOARD:

RECOGNIZING, the need for an updated
Merchant Marine Rules and Regulations to respond
to the fast changing technology and needs of the
maritime industry.

NOTING, the various recent developments and
advance technologies in the shipping industry which
affect the safety of life at sea and the protection of the
marine environment;

DESIRING, to ensure the promotion of safety of
life and property at sea and address the concern for
the protection of the marine environment, and, by
virtue of Executive Order No. 125, series of 1987, as
amended;

HEREBY ADOPTS, the PHILIPPINE
MERCHANT MARINE RULES AND
REGULATIONS OF 1997, during its 135th Regular
Meeting on 30 May 1997.

HON. ARTURO T. ENRILE
Chairman

HON. PIO H. GARRIDO, JR.
Vice-Chairman

MEMBERS

HON. CESAR B. BAUTISTA
Department of Trade & Industry

HON. ROMEO R. ZULUETA
Department of National Defense

HON. CARLOS L. AGUSTIN
Philippines Ports Authority

HON. EDGARDO F. GARCIA
Development Bank of the Philippines

HON. EDMUND DANTE JANDA
Office of the President

Secretary: ATTY. PURITA C. CENTENO
*Department of Transportation and
Communications*

**CHAPTER I
GENERAL PROVISIONS**

Regulation I/1 - Title

These Rules and Regulations shall be known
as the PHILIPPINE MERCHANT MARINE
RULES AND REGULATIONS OF 1997.

Regulation I/2 – Objectives

These Rules and Regulations are geared to
ensure that all ships of Philippine ownership and/or
registry are so designed, constructed, maintained,
operated and inspected in accordance with the
standards necessary to enhance the safety of life
and property at sea and the protection of the marine
environment.

Regulation I/3 – Scope of Application

- 1 Existing ships as defined in these Rules and
Regulations flying the Philippine flag in
which, by their size and type of operation, are
covered by international maritime
conventions, shall remain to be covered by
such international conventions and by these
Rules and Regulations as supplementary thereto.

These maritime conventions are as follows:

- .1 International Convention for the Safety of
Life at Sea, 1974/1978, as amended;
 - .2 International Convention on Load Line
(LL), 1996, as amended;
 - .3 International Convention on Standards of
Training, Certification and Watchkeeping
for Seafarers (STCW), 1978, as amended;
 - .4 International Convention for the
Prevention of Pollution from Ships
(MARPOL), 1973/1978, as amended;
 - .5 International Regulations for Preventing
Collisions at Sea (COLREG), 1972, as
amended;
 - .6 High Speed Craft Code adopted by IMO
on 20 May 1994, and its amendments;
 - .7 International Health Regulations (IHR)
1969 as amended – (WHO) 1983 (by the
World Health Assembly under the auspices
of the United Nations through
(WHO); and
 - .8 International Labor Organization
Maritime Conventions ratified by the
Philippines.
- 2 Existing ships as defined in these Rules and
Regulations flying the Philippine flag, in
which, by their size and type of operation, are
not covered by international maritime

conventions referred to in the preceding paragraph, shall conform to the provisions of these Rules and Regulations as far as reasonable and practicable to be determined by Administration.

- 3 New ships as defined hereunder to be registered in Philippine Registry of Ships in which, by their size and type of operation, are covered by the provisions of these Rules and Regulations, shall comply with the latter in all respects, and in the absence thereof, shall comply with the provisions of relevant international maritime conventions mentioned in paragraph 1 of this Regulation in a suppletory character;
- 4 Existing ships, new ships and barges between 15 meters and 24 meters in length shall comply with the requirements of Chapter XIV (Freeboard) and Chapter XVI (Prevention of Marine Pollution) of these Rules and Regulations.
- 5 Existing ships and barges conforming to the 1976 RPMRR are granted one year transitory period from the effectivity of the 1997 PMRR to conform to the provisions of the latter, subject to the provisions of Regulation III/1.
- 6 The provisions of these Rules and Regulations shall not apply to:
 - .1 ships of war and troop ships;
 - .2 ships and barges of 3 gt and below (not engaged in towing /pushing and carriage of goods and/or passengers for hire);
 - .3 pleasure crafts not engaged in any activity with pecuniary benefits;
 - .4 wooden ships of primitive build;
 - .5 sailing ships; and
 - .6 government ships not engaged in commercial operation.

Regulation I/4 – Definitions

For the purpose of these Rules and Regulations, and unless expressly provided otherwise:

- 1 *Accommodation spaces* are those spaces used for public spaces, corridors, lavatories, cabins, offices, hospitals, cinemas, games, and hobbies rooms, pantries containing no cooking appliances and similar spaces.
- 2 *Administration* means the Maritime Industry Authority.

- 3 *Amidships* is in the vicinity of the middle portion of a ship as distinguished from her ends or midway between bow and stern.
- 4 *Anniversary Date* means the day and month of each year which corresponds to the date of expiry of the relevant certificate.
- 5 *Approved* means approved by the Administration.
- 6 *Auxiliary* means of steering is the equipment other than any part of the main steering gear necessary to steer the ship in the event of failure of the main steering gear but not including the tiller, quadrant or components serving the same purpose.
- 7 *Barge* means a cargo ship not propelled by mechanical means and includes manned and unmanned barges and pontoons, but excludes accommodation barges.
- 8 *Block Coefficient* (C_b) is given by formula:

$$C_b = \frac{\nabla}{BLd}$$

where:

- ∇ is the volume of the moulded displacement of the ship, excluding bossing, in a ship with a metal shell, and is the volume of displacement to the outer surface of the hull in a ship with a shell of any other material, both taken at a moulded draught of d ;
 - d is the 85 per cent of the least moulded depth;
 - L is the length as defined in this Regulation, and
 - B is the breadth as defined in this Regulation.
- 9 *Breadth* (B), unless expressly provided otherwise, is the maximum breadth in meters of the ship, measured amidships to the moulded line of the frame in a ship with a metal shell and to the outer surface of the hull in a ship with a shell of any other material.
 - 10 *Bridge-to-Bridge communications* means safety communications between ships from the position from which the ships are normally navigated.
 - 11 *Bulkhead deck* is the uppermost deck up to which the transverse watertight bulkheads are carried.
 - 12 *Cargo* means merchandise/goods conveyed on a ship.
 - 13 *Cargo ship* is any ship which is not a passenger ship.

- 14 *Cargo spaces* are all spaces used for cargo (including cargo oil tanks) and trunks to such spaces.
- 15 *Certificate of Inspection* means a certificate issued after inspection and survey by the Administration to ships engaged in voyages in Philippines waters complying with these Rules and Regulations.
- 16 *COLREG* means the International Regulations for Preventing Collisions at Sea, 1972, as amended.
- 17 *Continuous radio watch* means that the watch concerned shall not be interrupted other than for brief intervals when the ship's receiving capability is impaired or blocked by its own communications or when the facilities are under the periodical maintenance or checks.
- 18 *Coastwise Voyage/Trade* means carriage for hire of passenger and/or merchandise on ships between ports and places in the Philippines.
- 19 *Company* means the owner of the ship or organization or person such as manager or bareboat charterer, who has assumed the responsibility for operation of the ship from the shipowner and who on assuming such responsibility, has agreed to take over all the duties and such responsibilities imposed by these Rules and Regulations.
- 20 *Control stations* are those spaces in which the ship's radio or main navigating equipment or the emergency source of power is located or where the fire recording or fire control equipment is centralized.
- 21 *Depth of freeboard (D)* means:
- .1 the moulded depth amidships, plus the thickness of the freeboard deck stringer plate, where fitted, plus $T \times (L-S) \div L$ if the exposed freeboard deck is sheathed, where:

L	is the length as defined;
T	is the mean thickness of the exposed sheathing clear of deck openings, and
S	is the total length of superstructures as defined.
 - .2 in a ship having a rounded gunwale with a radius greater than four percent of the breadth (B) or having topsides of unusual form is the depth for freeboard of a ship having midship section with vertical topsides and with the same round of beam and area of topside section equal to that provided by the actual midship section.
- 22 *Detection* is the determination of the location of survivors or survival craft.
- 23 *Digital selective calling (DSC)* means a technique using digital codes which enables a radio station to establish contact with, and transfer information to, another station or group of stations.
- 24 *Direct printing telegraphy (DPT)* means automated telegraphy techniques.
- 25 *Domestic Ownership* means ownership vested in citizens of the Philippines, or corporations or associations organized under the laws of the Philippines at least 60 percent of the capital stock of which is wholly owned by citizens of the Philippines.
- 26 *Existing ship* means a ship which is not a new ship.
- 27 *Emergency source of electrical power* is a source of electrical power, intended to supply the emergency switchboard in the event of failure of the supply from the main source of electrical power.
- 28 *Fishing Vessel* means vessel used for catching fish and other living resources of the sea, or assisting such vessel or transporting the catch in the course of fishing operations.
- 29 *Float-free launching* is that method of launching a survival craft whereby the craft is automatically released from a sinking ship and is ready to use.
- 30 *Flush deck ship* means a ship which has no superstructure on the freeboard deck.
- 31 *Freeboard assigned* is the distance measured vertically downwards amidships from the upper edge of the deck line to the upper edge of the related load line.
- 32 *Freeboard deck* means, normally, the uppermost complete deck exposed to weather and sea, which has permanent means of closing all openings in the weather part thereof and below, which all openings in the sides of the ship are fitted with permanent means of watertight closing. In a ship having a discontinuous freeboard deck, the lowest line of the exposed deck and the continuation of that line parallel to the upper part of the deck is taken as the freeboard deck. At the option of the owner and subject to the approval of the Administration, a lower deck may be designated as the freeboard deck provided it is a complete and permanent deck continuous in a fore and aft direction at least between the machinery space and peak bulkheads and continuous athwartships. When this lower deck is stepped the lowest line of the deck and the continuation of that line parallel to the upper part of the deck is taken as the freeboard deck. When a lower deck is designated as the

freeboard deck, that part of the hull which extends above the freeboard deck is treated as a superstructure so far as concerns the application of the condition of assignment and the calculation of freeboard. It is from this deck that the freeboard is calculated.

33 *Gross tonnage* means the tonnage as measured in accordance with the International Tonnage Convention, 1969, and for ships of less than 24 m in length in accordance with these Rules and Regulations.

34 *Hearing Officer/Body* refers to official(s)/body duly designated/constituted by the Administration to act as such in the conduct of maritime investigations and disciplinary proceedings.

35 *High Speed Craft* is a ship capable of maximum speed, in meters per second (m/s), equal to or exceeding:

$$3.7 \nabla^{0.1667}$$

where:

∇ = displacement corresponding to the design waterline (m³).

36 *Inflatable life raft* is a life-saving appliance which depends upon non-rigid, gas-filled chambers for buoyancy and which is normally kept uninflated until ready for use.

37 *International NAVTEX service* means the coordinated broadcast and automatic reception on 518 KHz of maritime safety information by means of narrow-band direct-printing telegraphy using English language.

38 *International Voyage* means a voyage from any port of entry in the Philippines to another country or conversely.

39 *Investigating Officer/Body* refers to the official(s)/body duly designated by the Administration to conduct maritime inquiry/investigation. Body refers to the Chairman, Vice-chairman and members who may be drawn from the Registry as designated by the Administration.

40 *Launching appliance or arrangement* is a means of transferring a survival craft or rescue boat from its stowed position safely to the water.

41 *Length (L)*, measured in meter is 96% of the total length on a waterline at 85% of the least moulded depth measure from the top of the keel, or the length from the fore-side of the stern to the axis of the rudder stock on that waterline, if that is greater. In ships designed

with a rake of keel the waterline on which this is measure shall be parallel to the designed waterline.

42 *Load Line Convention* means the International Convention on Load Lines, 1966.

43 *Locating* means the finding of ships, aircraft, units or persons in distress.

44 *Low flame spread* means that the surface thus described will adequately restrict the spread of flame, this being determined to the satisfaction of the Administration by an established test procedure.

45 *Machinery space* is to be taken as extending from the moulded base line to the margin line and between the extreme main transverse watertight bulkheads, bounding the spaces containing the main and auxiliary propulsion machinery, boilers serving the needs of propulsion, and all permanent bunker spaces.

46 *Machinery spaces of Category A* are those spaces and trunks to such spaces which contain:

.1 internal combustion machinery used for main propulsion;

.2 internal combustion machinery used for purposes other than main propulsion where such machinery has in the aggregate a total power output of not less 375 KW; or

.3 any oil-fired boiler or oil fuel unit.

47 *Main source of electrical power* is a source intended to supply electrical power to main switchboard for distribution to all services necessary for maintaining the ship in normal operational and habitable condition.

48 *Main steering gear* is the machinery, rudder actuators, steering gear power units, if any, and ancillary equipment and the means of applying torque to the rudder stock (e.g. tiller or quadrant) necessary for effecting movement of the rudder for the purpose of steering the ship under normal service conditions.

49 *Main switch board* is a switchboard which is directly supplied by the main source of electrical power and is intended to distribute electrical energy to the ship's services.

50 *Management* means the MARINA Administrator assisted by Deputy Administrator(s).

51 *Manned barge* means a propelled or non-propelled barge with accommodation.

- 52 *Maritime casualty or accident* means any casualty or accident involving any ship other than a naval ship which occurs within the navigable waters of the Republic of the Philippines, or any casualty or accident involving any Philippine ship, not a naval ship, which occurs outside of Philippine territorial waters, it includes any occurrence involving a ship which results in damage to a ship, its apparel, gear, and/or passengers and crews, and *inter alia* includes sinking, collision, stranding, grounding, heavy weather damage, other damage which may affect and impair the seaworthiness of the ship.
- 53 *Maritime safety information* means navigational and meteorological warnings, meteorological forecasts and other urgent safety-related messages broadcast to ships.
- 54 *MARPOL 73/78* means the International Convention for the Prevention of Pollution from Ships, 1973 and its Protocol of 1978, as amended.
- 55 *Maximum ahead service speed* is the greatest speed which the ship is designed to maintain in service at sea at the deepest seagoing draught.
- 56 *Maximum astern speed* is the speed which the ship is estimated to attain at the designated maximum astern power at deepest seagoing draught.
- 57 *Miscellaneous Ships* means all other ship not falling under any classes of ships.
- 58 *Moulded depth is:*
- .1 the vertical distance measure from the top of the keel to the top of the freeboard deck beam at side. In wood and composite ships the distance is measured from the lower edge of the keel rabbet. Where the form at the lower part of the midship section is of hollow character, or where thick garboards are fitted, the distance is measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel;
 - .2 in ships having rounded gunwales, it shall be measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwale were of angular design;
 - .3 where the freeboard deck is stepped and the raised part of the deck extends over the point at which the moulded depth is to be determined, it shall be measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part.
- 59 *Near Coastal Voyage* means a short international voyage which covers a maximum distance of two hundred (200) nautical miles from the Philippine baseline or voyage which by reciprocal agreement of the Philippines and another state is considered or treated as coastwise voyage.
- 60 *New Ship is either:*
- .1 a ship the keel of which is laid down on or after these Rules and Regulations become effective.
 - .2 a ship changing to Philippine registry.
 - .3 an existing ship which undergoes major conversion as to:
 - .1 substantially alter the dimensions or carrying capacity of the ship¹; or
 - .2 change the type of the ship; or
 - .3 which in the opinion of the Administration is substantially to prolong its life; or
 - .4 otherwise so alters the ship that, if it were a new ship, it would become subject to relevant provisions of these Rules and Regulations not applicable to it as an existing ship.
- 61 *Non-combustible material* is a material which neither burns nor gives off flammable vapors in sufficient quantity for self-ignition when heated to approximately 750°C, this being determined to the satisfaction of the Administration by an established test procedure². Any other material is a combustible material;
- 62 *Non-convention sized ships are ships* not covered by the International Conventions enumerated in Regulation I/14.
- 63 *Non-propelled ship* means a ship which has no means of propulsion, and is driven or capable of being driven either by sails or by other self-propelled ships.
- 64 *Officers/Seafarers Certificate or License or Seafarers' Identification and Record Book (SIRB)* refers to the document issued by an appropriate authority attesting that the holder is qualified to hold a position in such grade as appearing thereon.
- 65 *Offshore supply ship means a ship:*
- .1 primarily engaged in the transport of stores, material and equipment to offshore installations; and

1 For issuance of MC, refer to MARPOL Convention re: major conversion

2 Reference is made to the Improved Recommendation on Test Method for Qualifying Marine Construction Materials as Non-Combustible adopted by the Organization by Res. A.472(XII).

- .2 designed with accommodation and bridge erections in the forward part of the vessel and an exposed cargo deck in the after part for the handling of cargo at sea.
- 66 *Oil fuel unit* is the equipment used for the preparation of oil fuel for delivery to an oil-fired boiler, or equipment used for the preparation for delivery of heated oil to an internal combustion engine, and includes any oil pressure pumps, filters and heaters dealing with oil at a pressure of more than 0.18 N/mm².
- 67 *Organization* means the International Maritime Organization.
- 68 *Passenger* is any person carried on board a ship except:
- .1 the master and the members of the crew or other persons employed or engaged in any capacity on board a ship on the business of that ship;
 - .2 a person on board and carried either because of the obligation laid upon the master to carry shipwrecked, distressed or other person by reason of *force majeure*;
 - .3 a child under one year of age.
- 69 *Passenger ship* is any ship authorized by the Administration to carry passenger(s).
- 70 *Passenger-cargo ship* means any ship which carries both passengers and cargoes.
- 71 *Perpendiculars* means the forward and after perpendiculars taken at the forward and after ends of the length (L). The forward perpendicular shall coincide with foreside of the stem on the waterline on which the length is measured.
- 72 *Port of Registry* means the port in the Philippines where the ship's record of registry is kept and maintained.
- 73 *Protected waters* are bays, harbors, rivers, lakes or similar areas and waters in which a ship is not more than three nautical miles from land.
- 74 *Public spaces* are those portions of the accommodations which are used for halls, dining rooms, lounges and similar permanently enclosed spaces.
- 75 *Radio Regulations* means the Radio Regulations annexed to, or regarded as being annexed to, the most recent International Telecommunication Convention which is in force at any time.
- 76 *Radiotelephone auto alarm* means an approved automatic alarm receiving apparatus which responds to the radiotelephone alarm signal.
- 77 *Radiotelephone operator* means a person holding an appropriate certificate complying with the provisions of the Radio Regulations.
- 78 *Radiotelephone station and radiotelephone installation* shall be considered as relating to the medium frequency band, unless expressly provided otherwise.
- 79 *Recognized standards* are the applicable international or national standards or those adopted by the recognized classification societies and accepted by the Administration.
- 80 *Registry* is a pool of certified maritime professionals who may be called upon by the Administration to assist in the conduct of maritime incident/accident investigations.
- 81 *Rescue boat* is a boat designed to rescue persons in distress and to marshal survival craft.
- 82 *Retro-reflective material* is a material which reflects in the opposite direction a beam of light directed on it.
- 83 *Sailing ship* means a ship which has no mechanical means of propulsion, all propulsion power being provided by sails.
- 84 *Satisfaction of the Administration* means clarification or explanation concerning technical or other matters elaborated by an independent committee created by the Administration.
- 85 *Seamen or seafarers* refers to officers and ratings manning a ship, including fishing vessels and offshore oil rigs, except naval ships.
- 86 *Seaworthy ship* means ship certified by an attending authorized surveyor to have complied with the requirements of these Rules and Regulations.
- 87 *Self-propelled ship* means a ship which has its own mechanical means of propulsion.
- 88 *Service space* are those spaces used for galleys, pantries containing cooking appliances, lockers, mail and specie rooms, store-rooms, workshops other than those forming part of the machinery spaces, and similar spaces and trunks to such spaces.
- 89 *SOLAS 1974* means the International Convention for the Safety of Life at Sea, 1974 as amended.

- 90 *Special personnel* means all persons who are not passengers or members of the crew or children of under one year age and who are carried on board in connection with the special purpose of that ship or because of special work being carried out aboard that ship.
- 91 *Special purpose ship*, as defined in the Code of Safety for Special Purpose ships adopted by the Organization by Resolution A.534 (XIII), means a mechanically self-propelled ship which by reason of its function carries on board more than 12 special personnel including passengers. Special purpose ships to which these Rules and Regulations apply include the following types:
- .1 ships engaged in research, expeditions and surveys;
 - .2 ships for training of marine personnel;
 - .3 whale and fish factory ships not engaged in catching;
 4. ships processing other living resources at sea, not engaged in catching;
 5. other ships with design features and modes of operation similar to ships referred to in .1 and .4 above which in the opinion of the Administration may be referred to this group.
- 92 *Ship's Officers* refers to duly licensed deck, engine and radio officers of ships.
- 93 *Short International Voyage* means an international voyage in the course of which a ship is not more than 200 nautical miles from a port or place where the passengers and crew could be landed safely, and which does not exceed 600 nautical miles in length between the 1st port of call in the country in which the voyage begins and the final port of destination.
- 94 *STCW convention* means the International Convention on Standards of Training, Certification and Watchkeeping of Seafarers, 1978/95.
- 95 *Steel or other equivalent material*. Where the words "Steel or other equivalent material" occur, "equivalent material" means any non-combustible material which, by itself or due to insulation provided has structural and integrity properties equivalent to steel at the end of the applicable exposure to the standard fire test (e.g. aluminum alloy with appropriate insulation).
- 96 *Superstructure* is a decked structure on the freeboard deck, extending from side to side of the ship or with the side plating not being inboard of the shell plating more than four percent of the breadth (B). A raised quarter deck is regarded as a superstructure.
- 97 *Survival craft* means a craft provided for accommodating the persons on board in the event of abandonment of the ship and includes lifeboats, liferafts and any other craft approved as suitable for the protection and preservation of persons in such circumstances.
- 98 *Tanker* is a cargo ship constructed or adapted for the carriage in bulk of liquid cargoes of an inflammable nature.
- 99 *Thermal protective aid* is a bag or suit made of waterproof material with low thermal conductivity.
- 100 *Vessel/Ship* is a general term for all craft or artificial contrivance capable of floating in water, designed to be used or capable of being used as a means of water transportation utilizing its own motive power or that of others.
- 101 *Watertight* means capable of preventing the passage of water through the structure in any direction under a head of water for which the surrounding structure is designed.
- 102 *Weathertight* means that in any sea condition water will not penetrate into the ship.
- 103 *Wooden ship of primitive build* means a wooden ship of traditional built not primarily propelled by mechanical means.
- 104 *Yacht* means any ship which is used for pleasure only, whether power driven or otherwise.

Regulation I/5 – Categories and Classes of Ships

- 1 Ships shall be categorized and classified according to the plying limits and type of service.
- 2 A ship licensed to ply in a certain category shall not ply in any other category, except when an application is made and granted.
- 3 Where a ship falls under two categories, the category which imposes higher requirements shall be applied.
- 4 The following are the categories and classes of ships:
 - .1 CATEGORIES OF SHIPS
 - Category 1. Engaged on an international voyage
 - Category 2. Engaged on a coastwise voyage
 - Category 3. Bay, River, Harbor and Lakes

.2 CLASSES OF SHIPS

Class A.	Passenger Ships
Class B.	Cargo Ships
Class C.	Tankers
Class D.	Tugs and Dredgers
Class E.	Fishing Vessels
Class F.	Yachts
Class G.	Highspeed Crafts
Class H.	Special Purpose Ships
Class I.	Miscellaneous Ships

Regulation I/6 – Inspections, Drydocking and Certificates Required

- 1 Inspection of hull, boilers, machinery, firefighting/lifesaving appliances, pilot ladders, navigation, lights and/or details as specified in the ship's certificate shall be made annually.
- 2 Ships classed by a classification society recognized by the Administration shall be class-maintained and drydocked in accordance with the schedule prescribed by the rules of the said classification society. However, classed passenger ships shall undergo underwater survey on the first anniversary of last drydocked by recognized underwater surveying company.
- 3 Ships not classed shall be drydocked once every two years, while passenger ships not classed shall be drydocked every year.
- 4 Ships shall be issued certificates depending on their category and class:
 - .1 Passenger Ship Safety Certificate
 - .2 Cargo Ship Safety Construction Certificate
 - .3 Cargo Ship Safety Equipment Certificate
 - .4 Certificate of Inspection
 - .5 Loadline Certificate
 - .6 Tonnage Certificate
 - .7 Radio Telegraphy Certificate or Radio Telephony Certificate
 - .8 Exemption Certificate
 - .9 Such other certificates which may be required pursuant to the provisions of national laws, rules and regulations and International Maritime Conventions and Resolutions.

Regulation I/7 – Carriage of Persons/Towage of Ship in Emergency

- 1 For the purpose of evacuating persons in distress or to avoid a threat to the security or safety of their lives, the master or responsible

officer of the ship in rescue may take a larger number of persons than it is authorized to carry without endangering the safety of his passenger, crew and the ship.

- 2 Ships not constructed for towing shall not be allowed to tow, and no ship, whilst towing, be allowed to carry passenger, except in case of emergency.

Regulation I/8 – Equipment/Appliances

- 1 The appliances and equipment required by these Rules and Regulations shall comply with the specifications and be type-approved by the Administration.
- 2 Where these Rules and Regulations require that a particular fitting, material, appliance or apparatus, or type thereof to be fitted or carried, or any other provision to be made in the ship, the Administration may allow any other fitting, material, appliances, apparatus or type thereof to be fitted or carried, or any other provision to be made in that ship if it is satisfied by trials thereof or otherwise that such fitting, material, appliance, apparatus or type thereof, is at least as effective as that required by these Regulations.

Regulation I/9 – Repairs, Alterations or Modifications

- 1 Repairs, alterations or modifications of a major character and outfitting related thereto shall meet the requirements prescribed for a new ship to such extent as the Administration deems reasonable and practicable. The owner shall inform the Administration of the proposed repairs, alterations or modifications before the same are carried out.
- 2 For the purposes of these Rules and Regulations, repairs, alterations or modifications shall be recognized as being a "major character" if it falls within the context of major conversion as defined.

Regulations I/10 – Carriage of Mail

Mail transported on board ships must be stored in a safe and secured manner to avoid damage or loss.

Regulations I/11 – Hospital Arrangement

Ships carrying 500 or more passengers and with travel time exceeding 12 hours, shall identify a cabin which can be converted into an emergency isolation room when the need arises. Whenever it is used as an isolation room, disinfections should be done afterwards.

Regulations I/12 – Accessibility for Disabled Person(s)

The requirements of accessibility for disabled person(s) are governed by relevant circulars³ issued by the Administration.

Regulation I/13 – Nuclear Ships

The Regulations provided in Chapter VIII of SOLAS 1974, as amended, apply to all Philippine flag ships powered by nuclear plant.

Regulation I/14 – Harbor and Quarantine Regulations

The rules and regulations issued by ports and quarantine authorities, insofar as pertinent, shall form part of these Rules and Regulations, but not limited to the following.

- 1 Ships engaged in domestic trade shall be fumigated at least once a year preferably during the required dry docking.
- 2 Ships engaged in domestic trade is subject to vermin and abatement and control inspection while in port by duly constituted authorities. Ship without deratization document shall be subject to appropriate penalty.
- 3 Ships engaged in domestic trade shall comply with relevant national regulation on disposal of human remains and management of communicable diseases on board.

Regulation I/15 – Adherence to International Conventions

These Rules and Regulations adhere to the following International Conventions, as amended, including relevant resolutions and recommendations:

- 1 The International Convention on Load Line (LL), 1966
- 2 The International Tonnage Convention, 1969
- 3 The International Regulations for Preventing Collisions at Sea (COLREG), 1972
- 4 The International Convention for the Prevention of Pollution for Ships (MARPOL), 1973/1978
- 5 The International Convention for Safety of Life at Sea (SOLAS), 1974/1978
- 6 The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978/1995

³ Memorandum Circular No. 98, adopted 16 March 1995, implementing B.P. 344 and R.A. 7277

- 7 The United Nations Convention on the Law of the Sea, 1982.
- 8 The International Health Regulations (IHR), 1969.
- 9 Any related international maritime conventions in force.

Regulation I/16 – Penalty Clause

- 1 Any violations by any officer, owner, charterer, or agent of any ship, or by any other person, of any of the provisions of these Rules and Regulations for which violation no specific penalty is provided in any of the Chapters of these Rules and Regulations shall be subject to corresponding fines and penalties prescribed by applicable circulars issued by the Administration.
- 2 The Administration may impose penalties to include, but not limited to fines, suspension, revocation or cancellation of the license, accreditation, permit or authority, or any issuance as the case may be.

Regulations I/17 – Repealing Clause

These Rules and Regulations shall repeal the 1976 Revised Philippine Merchant Marine Rules and Regulations, as amended and other issuances insofar as inconsistent herewith.

Regulation I/18 – Separability Clause

Should any part of these Rules and Regulations be declared null and void by any competent authorities, the same shall not affect the validity of the remaining part.

Regulation I/19 – Effectivity

These Rules and Regulations shall take effect upon its publication in the Official Gazette or once in any newspaper of general circulation.

CHAPTER II

SURVEYS AND CERTIFICATES

Regulation II/1 – General Aspects of Inspections, Surveys and Markings

- 1 The inspection, survey and marking of ships, as regards the enforcement of these Rules and Regulations and the granting of exemptions there from, shall be carried out by the Administration or by any authorized surveyors or organizations.⁴
- 2 The Administration, in authorizing surveyors or organizations as set forth in the preceding paragraph shall, as a minimum, empower them to:
 - .1 Carry out inspections and surveys if requested by the appropriate authorities of a port State; and
 - .2 require repairs to a ship
- 3 When an authorized surveyor or organization determines that the condition of the ship or its equipment does not correspond substantially with the particulars of the ship safety certificates, or is such that the ship is not fit to proceed to sea without danger to the ship, or persons on board, such authorized surveyor or organization shall immediately ensure that corrective action is taken and should, in due course, notify the Administration. If such corrective action is not taken, the relevant certificate shall be withdrawn immediately; and if the ship is in the port of another party, the appropriate authorities of the port State shall also be notified immediately.
- 4 In any case, the Administration shall fully guarantee the completeness and efficiency of the inspections and surveys, and shall undertake to ensure that necessary arrangements to satisfy this obligation are established.

Regulation II/2 – Surveys

- 1 Ships to which these Rules and Regulations apply shall be subject to surveys. The general nature and the frequency of such surveys shall be as specified below.⁵

⁴ Reference is made to the following IMO Resolutions:

1. Res. A.739 (18) Guidelines for the Authorization of Organizations acting on behalf of the Administration;
2. Res. A.740 (18) Interim Guidelines to Assist Flag States.

⁵ Reference is made to the following IMO resolutions:

1. Res A.745 (18) Early Implementation of the Harmonized System of Survey and Certification
2. Res. A.746(18) Survey Guidelines under the Harmonized System of Survey and Certification.

- .1 an initial survey, including an inspection of the outside of the ship's bottom, before the ship is put in service;
 - .2 a renewal survey at intervals specified by the Administration but not exceeding five years, except where Regulation II/6 paragraph 2 is applicable.
 - .3 a periodical/intermediate survey within three months before or after the second anniversary date or within three months before or after the anniversary date of the Certificate which shall take the place of one of the annual surveys specified in the next paragraph;
 - .4 an annual survey within three months before or after each anniversary date of the Certificate;
 - .5 an additional survey as the occasion arises;
 - .6 two inspections of the ship's hull, including an inspection of the outside of the ship's bottom, within a five-year period.
 - .7 unclassified ships shall be governed by Regulation I/6(3).
- 2 The surveys referred to in paragraph 1 shall be carried out as follows:
 - .1 the initial survey before the ship is put into service shall be such as to ensure that arrangements, equipment and systems specified below comply fully with the requirements of these Rules and Regulations and the workmanship of all such parts and equipment is in all respects satisfactory:
 - .1 the arrangements, materials and scantlings of the structure;
 - .2 boilers and other pressure vessels;
 - .3 main and auxiliary machinery;
 - .4 fire safety systems and appliances and arrangements, navigational equipment, nautical publications, means of embarkation for pilots;
 - .5 radio installations including those used in life-saving appliances;
 - .6 arrangements for the control of discharge of oil and for the retention of oil on board;
 - .7 provision of the lights, shapes, means of making sound signals and distress signals as required by the provisions of COLREG;

- .8 the arrangements, materials and scantlings fully comply with the requirements of Chapters XIII and XIV relating to the conditions for assignments of load lines and freeboard;
- .2 the renewal survey shall include an inspection of the equipment referred to in paragraph 2.1 to ensure that it complies with the relevant requirements of these Rules and Regulations and COLREG;
- .3 the periodical survey shall include an inspection with tests where necessary of the equipment to ensure that the requirements relating to the life-saving appliances, fire appliances and the light and sound signals are complied with and that they are in satisfactory condition and are fit for the service for which the ship is intended. All certificates, record books, operating manuals and other instructions and documents specified shall be checked for their adequacy.
- .4 the intermediate survey shall include an inspection of items relating to Chapters III to IX and Chapter XVI of these Rules and Regulations to ensure that they are in a satisfactory condition and fit for the service for which the ship is intended. When inspecting items of hull and machinery for detailed examination, due account shall be taken of any continuous survey schemes adopted;
- .5 the annual survey shall include an inspection to ensure that:
 - .1 the equipment referred to in paragraph 2.1 remains satisfactory for the service for which the ship is intended;
 - .2 alterations have not been made to the hull or superstructures which would affect the calculations determining the position of the loadlines;
 - .3 the fittings and appliances for the protection of openings, guard rails, freeing ports and means of access to crew's quarters are maintained in an effective condition;
- .6 an additional survey either general or partial, according to the circumstances, shall be made after a repair resulting from investigations whenever an accident occurs to a ship or a defect is discovered, either of which affects the safety of the ship or whenever any important repair or renewals are effectively made;

- .7 a minimum of two inspections of the outside of the ship's bottom during any five-year period except where so authorized by the Administration. The interval between any two such inspections shall not exceed 36 months. The inspection of the outside of the ship's bottom and the survey of related items inspected at the same time shall be such as to ensure they remain satisfactory for the service for which the ship is intended. Preferably the inspection shall coincide with the renewal survey.

- 3 The periodical/intermediate and the annual surveys referred to in this Regulation shall be endorsed on the Certificate.

- 4 Where a ship complies with this Regulation partially and complies with the relevant provisions of the international conventions specified in Regulation I/3, the Administration shall ensure that prior to issue of any certificate under this Regulation, compliance with such provisions of the other Conventions is assured.

Regulation II/3 – Maintenance of Condition After Survey

- 1 The condition of the ship and its equipment shall be maintained by the master and company to conform with the provisions of these Rules and Regulations to ensure that the ship in all respects will remain fit to proceed to sea without danger to the ship, persons on board or the marine environment.
- 2 After any survey of the ship under this Chapter is completed, no change shall be made in the structural arrangements, machinery, equipment and other items covered by the survey, without the sanction of the Administration.
- 3 Whenever an accident occurs to the ship or a defect is discovered, either of which affects the safety of the ship or the efficiency or completeness of its life-saving appliances or other equipment, a request shall be made immediately to the Administration responsible for issuing the relevant certificate for a survey as may be required by Regulation II/2, to be carried out as soon as practicable.

Regulation II/4 – Issuance or Endorsements of Certificates

- 1 Subject to the provisions of Regulation II/2 paragraph 4, a Ship Safety Certificate, hereinafter called the Certificate, shall be issued after an initial or renewal survey, specified in Regulation II/2 paragraph 2, to a ship which complies with the relevant requirements of these Rules and Regulations. In any case the Administration shall ensure

the completeness of the inspections prior to the issue of any certificates.

- 2 The Certificate issued under the provisions of paragraph 1 shall be supplemented by a Record of Equipment.
- 3 A Special Purpose Ship Safety Certificate shall be issued after an initial or renewal survey to a ship which complies with the relevant requirements of these Rules and Regulations for the safety of special purpose ships.
- 4 When an exemption is granted by the Administration to a ship under and in accordance with the provisions of these Rules and Regulations, an Exemption Certificate shall be issued in addition to the Certificate prescribed in this Regulation. The Exemption Certificate shall be attached to the certificate to which it refers.
- 5 The certificate referred to in this Regulation shall be issued or endorsed either by the Administration or by any person or organization authorized by it. In any case, the Administration shall assume full responsibility for the Certificate.

Regulation II/5 – Issuance or Endorsement of Certificates by another Government

The Administration may, at the request of another administration, cause a ship to be surveyed and, if satisfied that requirements of these Rules and Regulations are complied with, shall issue or authorize the issue of the Certificates to the ship and, where appropriate, endorse or authorize the endorsement of the Certificate in accordance with the requirements of these Rules and Regulations. Any certificate so issued shall contain a statement to the effect that it has been issued at the request of the Government of the flag State.

Regulation II/6 – Duration and Validity of Certificates

- 1 A Ship Safety Certificate and a Special Purpose Ship Safety Certificate shall be issued for a period as specified by the Administration. Such period shall not exceed five years. An exemption certificate shall not be valid for longer period than the period of the certificate to which it relates. Certificate of Inspection shall be valid for two years subject to mandatory annual survey on first anniversary date of the CI.
- 2 Notwithstanding the requirements of the preceding paragraph, when the renewal survey is completed within three months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not

exceeding five years from the date of expiry of the existing certificate.

- 3 When the renewal survey is completed after the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing certificate.
- 4 When the renewal of survey is completed more than three months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding five years from the date of completion of the renewal survey.
- 5 If the certificate is issued for a period of less than five years, the Administration may extend the validity of the certificate beyond the expiry date to the maximum period specified in paragraph 1, provided that the applicable surveys referred to in Regulation II/2 for the issue of the certificate for five years are carried out.
- 6 If a renewal survey has been completed and the new certificate cannot be issued or placed on board the ship before the expiry date of the existing certificate, the person or the organization authorized by the Administration may endorse the existing certificate and such certificate shall be accepted as valid for a further period which shall not exceed one month from the expiry date.
- 7 If a ship at the time when the certificate expires is not in a port in which is to be surveyed, the Administration may extend the period of validity of the certificate but this extension shall be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed, and only in cases where it appears proper and reasonable to do so. No certificate shall be extended for a period longer than one month, and a ship to which such an extension is granted shall not, on its arrival in the port in which it is surveyed, be entitled by virtue of such extension to leave that port without a new certificate. Where the renewal survey is completed the new certificate shall be valid to a date not exceeding five years from the date of expiry of the existing certificate before the extension was granted.
- 8 In special circumstances, as determined by the Administration, the new certificate need not be dated from the date of expiry of the existing certificate as required by paragraphs 2, 5 and 7. In these special circumstances the new certificate shall be valid to a date not exceeding five years from the date of the completion of the renewal survey.

- 9 If an annual or periodical/intermediate survey is completed before the period specified in the relevant regulations then:
- .1 the anniversary date shown on the relevant certificate shall be amended by endorsement to a date which shall not be more than three months later than the date on which the survey was completed.
 - .2 the subsequent annual or periodical survey required by the relevant regulations shall be completed at the intervals prescribed by these Rules and Regulations using the new anniversary date;
 - .3 the expiry date may remain unchanged provided one or more annual or periodical surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by the relevant regulations are not exceeded.
- 10 A certificate issued under this Chapter shall cease to be valid in any of the following cases:
- .1 if the relevant surveys and inspection are not completed within the periods specified in this Chapter;
 - .2 if the certificate is not endorsed in accordance with this Chapter;
 - .3 upon transfer of the ship to the flag of another State.
- 11 Upon transfer of a ship to Philippine flag, a new certificate shall only be issued when the Administration is fully satisfied that the ship is in compliance with the requirements of these Rules and Regulations.

Regulation II/7 – Form of Certificates

All certificates shall be drawn up in a form corresponding to the models given in Appendix A to these Rules and Regulations.

Regulation II/8 – Availability of Certificates

The certificates issued under this Chapter shall be readily available on board for examination at all times.

Regulation II/9 – Control⁶

- 1 Every Philippine-flag ship can be subject to port state control when in a port of another State insofar as this control is directed towards verifying that the Certificate issued under these Rules and Regulations is valid.
- 2 Such certificate, if valid shall be accepted unless there are clear grounds for believing

that the ship and/or its equipment does not correspond substantially with the particulars of the certificate.

- 3 When the event of any intervention being necessary the appropriate consular officer, the authorized surveyors and organizations shall be informed.
- 4 When exercising control, all possible efforts shall be made to avoid a ship being unduly delayed or detained. If a ship is unduly delayed or detained it shall be entitled to compensation for any loss or damage suffered.

CHAPTER III

CONSTRUCTION AND EQUIPMENT

Regulation III/1 – General Provisions

- 1 All existing ships shall, as a rule, comply with the requirements existing prior to coming into force of these Rules and Regulations. Where no such requirements are applicable, ships shall comply with these Rules and Regulations to the extent the Administration considers to be reasonable or practicable. Existing ships which undergo replacement of equipment or outfitting related thereto shall comply with the requirements specified in this Chapter as far as it is considered reasonable and practicable by the Administration.
- 2 All machinery and electrical installations, mechanical and electrical equipment and appliances, boilers and other pressure vessels, associated piping systems, fittings and electrical cables and wiring shall be of a design and construction adequate for the service for which they are intended and shall be so installed and protected as to reduce to a minimum any danger to persons on board, due regard being paid to moving parts, hot surfaces and other hazards. The design shall have regard to materials used in construction, and to purposes for which the equipment is intended, the working conditions and the environmental conditions to which it will be subjected.

Regulations III/2 – Construction

- 1 The strength and construction of hull, superstructures, deckhouses, machinery casings, companion ways and any other structure and equipment shall be sufficient to withstand all foreseeable conditions of the intended service. A ship built and maintained in conformity with the applicable rules of a classification society or any other body recognized by the Administration may be considered as adequate in this respect.

⁶ Reference is made to Res. A.787(19) Procedures for Port State Control

- 2 Ships propelled by mechanical means shall be fitted with a collision bulkhead in accordance with Regulation III/3 and with watertight bulkheads bounding the machinery spaces. Such bulkheads shall be extended up to the freeboard deck. In ships constructed of wood such bulkheads shall be watertight as far as practicable.
- 3 Propeller shafts and shafts logs or stern tubes shall not be situated in any space other than machinery spaces containing main propulsion machinery unless they are enclosed in watertight spaces or enclosures inside such spaces acceptable to the Administration. The Administration may exempt, from the requirements of this paragraph, ships having constraint of space or engaged on sheltered voyages, provided it is demonstrated that any progressive flooding of such space can be easily controlled and that the safety of the ship is not impaired.
- 4 Stern glands shall be located in spaces which are easily accessible at all times for inspection and maintenance to the satisfaction of the Administration.

Regulation III/3 – Collision Bulkhead

- 1 For the purpose of this Regulation freeboard deck, lengths of ship and perpendiculars (forward and aft) have the meanings as defined in Chapter 1.
- 2 A collision bulkhead shall be fitted which shall be watertight up to the freeboard deck. This bulkhead shall, as far as practicable, be located at a distance from the forward perpendicular of not less than five percent and not more than eight percent of the length of the ship. Where it can be shown to the satisfaction of the Administration that it is impractical for the collision bulkhead to be located at distance from the forward perpendicular of not more than eight percent of the length of the ship, the Administration may allow relaxation therefrom, subject to the condition that, should the space forward of the bulkhead be flooded, the ship at full load condition will not be submerged to a line drawn at least 76 mm below the upper surface of the bulkhead deck at side.
- 3 The collision bulkhead may have steps or recesses in it provided that they are within the limits prescribed in paragraph 2. Pipes piercing the collision bulkhead shall be kept to the minimum. Such pipes shall be fitted with suitable valves operable from above the freeboard deck and the valves chest shall be secured at the collision bulkhead inside the forepeak. The Administration may permit the location of such valves on the after side of the collision bulkhead, provided that they are

readily accessible under all service conditions and the space in which they are located is not a cargo space. All such valves shall be of a material acceptable to the Administration.

- 4 Where a long forward superstructure is fitted, the collision bulkhead shall be extended weathertight to the deck immediately above the freeboard deck. The extension shall subject to the requirements of paragraph 3, be located within the limits prescribed in paragraph 2. The part of the deck, if any, between the collision bulkhead and its extension shall be weathertight.
- 5 Where a bow door and a sloping loading ramp that forms part of the extension of the collision bulkhead above the freeboard deck is fitted, the part of the extension, which is more than 2.3 m, or as specified by the Administration, above the freeboard deck may extend no more than 1 m forward of the forward limits specified in paragraph 2. The ramp shall be weathertight over its complete length.
- 6 The number of openings in the extension of the collision bulkhead above the freeboard deck shall be reduced to the minimum compatible with the design and normal operation of the ship. All such openings shall be capable of being closed weathertight.
- 7 No doors, manholes, ventilation ducts or access openings are permitted in the collision bulkhead below the freeboard deck.
- 8 Where a chain locker is located abaft the collision bulkhead or extends into the forepeak tank, it shall be watertight and provided with efficient means of drainage.
- 9 A chain locker shall not be used for any purpose other than stowage of anchor chain cables.

Regulation III/4 – Watertight Bulkheads, Decks, Doors, Trunks, etc.

- 1 These Rules and Regulations shall apply to new ships propelled by mechanical means. These Rules and Regulations shall not apply to ships the hull of which is constructed of wood.
- 2 Each weathertight subdivision bulkhead whether transverse or longitudinal shall be constructed in such a manner that it shall be capable of supporting with a proper margin of resistance, the pressure due to the maximum head of water which it might have to sustain in the event of damage to the ship but at least the pressure due to a head of water up to the margin line. The construction of these bulkheads shall be to the satisfaction of the Administrator.

- 3 Steps and recesses in bulkheads shall be watertight and of the same strength as the bulkhead at the place where each occurs.
- 4 Where frames or beams pass through a watertight deck or bulkhead, such deck or bulkhead shall be made structurally watertight to the satisfaction of the Administration.
- 5 The number of openings in watertight bulkheads shall be reduced to the minimum compatible with the general arrangements and operational needs of the ship. Openings shall be fitted with watertight closing appliances to the satisfaction of the Administration. Watertight doors shall be of equivalent strength to the adjacent unpierced structure.
- 6 Watertight decks, trunks, tunnels, duct keels and ventilators shall be of the same strength as watertight bulkheads at corresponding levels. The means used for making them watertight, and the arrangements adopted for closing openings in them, shall be to the satisfaction of the Administration. Watertight ventilators and trunks shall be carried at least up to the freeboard deck.
- 7 Testing main compartments by filling them with water is no compulsory. When testing by filling with water is not carried out, a hose test shall be carried out in the most advanced stage of the fitting out of the ship. In any case, a thorough inspection of watertight bulkheads shall be carried out.
- 8 The forepeak, afterpeak, double bottom tanks (including duct keels), and inner skins shall be tested with water to a head corresponding to the requirements of paragraph 2.
- 9 Tanks which are designed to hold liquids, and which form part of the subdivision of the ship, shall be tested for tightness with water to a head corresponding to two-third of the depth from the top of keel to the margin line in way of the tanks; provided that in no case shall the test head be less than 0.9 m above the top of the tank.
- 10 The tests referred to in paragraphs 8 and 9 are for the purpose of ensuring that the subdivision structural arrangements are watertight and are not to be regarded as a test of the fitness of any compartment for the storage of oil fuel or for other special purposes for which a test of a superior character may be required depending on the height to which the liquid has access in the tank or its connections.

Regulation III/5 – Means for Sounding

- 1 Means for sounding to the satisfaction of the Administration, shall be provided for:

- .1 the bilges of those compartments which are not readily accessible at all times during the voyage; and
- .2 all tanks and cofferdams.

- 2 Where sounding pipes are fitted, their upper ends shall be extended to a readily accessible position and, where practicable, above the freeboard deck. The openings shall be provided with permanently attached means of closing. Sounding pipes which are not extended above the freeboard deck shall be fitted with automatic self-closing devices.

Regulation III/6 – Anchoring and Mooring Equipment

- 1 At least two anchors of sufficient weight shall be provided. One of these shall be provided with a chain cable or wire rope of adequate strength and size and windlass, capstan or winch of suitable size for the cable and other anchor handing equipment and arrangements shall be to the satisfaction of the Administration. The Administration may permit carriage of only one anchor with adequate chain or wire and other arrangements taking into account the size of the ship and its area of operation.
- 2 Windlass, capstan, winches, fairleads, bollards, mooring bits and other anchoring mooring, towing and hauling equipment shall be:
 - .1 properly designed to meet all foreseeable operational loads and conditions;
 - .2 correctly seated; and
 - .3 effectively secured by stoppers to a part of the ship's structure which is strengthened suitably.

Regulation III/7 – Requirements of Towing and Pushing Arrangements Provided on Tugs

- 1 The design of the towing gear shall be such as to minimize the overturning moment due to the lead of the towline. It shall have a positive means of quick release which can be relied upon to function correctly under all operating conditions and released from the position from which towing operations are controlled.
- 2 Where a towing hook is provided with a quick release mechanism such mechanism shall be controlled, as far as practicable, from the navigating bridge, the after control position, if fitted, and at the hook itself.
- 3 When a pushed pushing tug and a barge pushed ahead are rigidly connected in a composite unit, the tug-barge coupling system shall be capable of being controlled and

powered from the tug. Disassembly shall be capable of being made without causing damage to the tug or the barge.

- 4 Every tug shall be provided with at least one axe of sufficient size on each side of the ship so as to be readily available for cutting the towline free in an event of an emergency.
- 5 Sufficient spare equipment to completely remake the towing and mooring arrangements for the tow shall be available on the tug
- 6 Secondary or emergency towing arrangements shall be fitted on board the barge so as to be easily recoverable by the towing tug in the event of failure of the main towing wire or failure of ancillary equipment.

Regulation III/8 – Mooring and Towing Arrangements for Barges

- 1 The towing and mooring arrangements shall be such as to reduce to a minimum any danger to personnel during towing or mooring operation. Such arrangements shall be suitable for the particular type of barge and of adequate strength.
- 2 The design and arrangements of fittings or equipment for towing and mooring of barges shall be to the satisfaction of the Administration and shall take into account both normal and emergency conditions.
- 3 In addition to the provisions of these Rules and Regulations, tugs and barges shall comply with the applicable requirements for the safety of towed ships and other floating objects recommended by the Organization.⁷

Regulation III/7 – General Protection Measures Against Accidents

- 1 Hinged covers of hatchways, manholes and other similar opening shall be protected against accidental closing. In particular, heavy covers on escape hatches shall be equipped with counter weights. Escape doors and covers of escape and access of hatches shall be so constructed as to be capable of being opened from either side of the door or cover.
- 2 The dimensions of access hatches shall be such that it will allow a person to have a quick and easy escape to a safe place in the event of an emergency. Where practicable, the dimensions of access hatches of cargo, machinery and accommodations spaces shall be such that they will facilitate expeditious rescue operation.

⁷ Reference is made to Res. A.765(18) Guidelines on the Safety of Towed Ships and other Floating Objects including installations, Structures and Platforms at Sea

- 3 Handrails, grabrails and handholds of sufficient size and strength shall be provided to the satisfaction of the Administration as support for persons when the ship is severely rolling or pitching.
- 4 Skylights of machinery spaces or other similar openings which are normally kept open at sea shall be provided with adequately spaced protective bars or other arrangements to the satisfaction of the Administration to prevent a person from falling into the space accidentally. Where the size of such an opening is small, the Administration may waive this requirement if satisfied that due to the small size of the opening no protective arrangement is necessary.

CHAPTER IV

STABILITY REQUIREMENTS

Regulation IV/1 – Intact Stability, Subdivision and Damage Stability Requirements for Ships Other than Offshore Supply Ships

- 1 Paragraph 2 to 4 shall apply to ships propelled by mechanical means. Paragraph 5 shall apply to barges only. Paragraph 6 shall apply to all ships.
- 2 Subject to the provisions of paragraph 3, ships of 24 m and above in length, shall comply with the applicable intact stability requirements for ships specified in the Stability Code⁸ or comply with the equivalent stability standards adopted by the Administration.
- 3 Ships of 24 m and above in length whose characteristics, in the opinion of the Administration, render compliance with paragraph 2 impracticable shall comply with the stability criteria recommended in paragraph 2.5.2 of Resolution A.469 (XIII) Guidelines for the Design and Construction of Offshore Supply Ships.
- 4 In addition to complying with the applicable requirements of this Regulation, the Administration may require, having regard to the nature of intended services, application of weather criteria specified in paragraph 3.2 of the Stability Code.
- 5 Intact stability of barges (including pontoons) carrying only deck cargoes, having no hatchways on the deck small manholes closed with gasketed covers, no machinery installations and no accommodation and

⁸ Reference is made to Res.A.749 (18) Code on Intact Stability for all Types of Ships covered by IMO Instruments

service spaces, shall be in accordance with the stability requirements specified in paragraph 4.7 of the Stability Code. The intact stability or subdivision and damage stability requirements, as appropriate, for barges carrying underdeck cargoes or having machinery installations or service spaces shall be determined by the Administration, having regard to the design and arrangements of cargo spaces, machinery, equipment, deck houses or superstructure.

- 6 For ships between 15 m and 24 m in length, the Administration may apply the provisions of the Stability Code⁹. For ships shorter than 15 m in length, the Administration may assign a different standard.

Regulation IV/2 – Intact Stability, Subdivision and Damage Stability Requirements for Offshore Supply Ships

The intact stability and subdivision of offshore supply ships shall comply with the applicable requirements of the Stability Code.¹⁰

Regulation IV/3 – Inclining Tests and Stability Information

- 1 Every ship shall undergo an inclining test upon its completion and the actual displacement and position of the center of gravity shall be determined for the light ship condition.
- 2 Where alterations are made to a ship affecting its light condition and the position of the center of gravity, the ship shall, if the Administration considers this necessary, be re-inclined and the stability information amended.
- 3 The Administration may allow the inclining test of an individual ship to be dispensed with provided that reliable stability information for the exempted ship can be obtained from a basic data available from the inclining test of a sister ship and that during the construction the same weights of components and weight distribution is observed.
- 4 The Administration may dispense the inclining test of a cargo ship or a class of ships especially designed for the carriage of liquids or ore in bulk, when reference to existing data for similar ships clearly indicates that due to ship proportions and arrangements more than sufficient transverse metacentric height will be available in all probable loading conditions.

Stability information approved by the Administration shall be supplied to ships propelled by mechanical means to enable the master to assess with ease and certainty the

stability of the ship under various operating conditions¹¹. Such information shall include specific instructions to the master warning him of those operating conditions which could adversely affect either stability or the trim of the ship.

- 6 In particular, the information recommended in the Stability Code shall be included as appropriate. A copy of the stability information shall be submitted to the Administration.
- 7 The approved stability information shall be kept on board, readily accessible at all times and inspected at the periodical surveys of the ship to ensure that it has been approved and the condition of the ship since its approval has not changed.
- 8 Where alterations are made to a ship affecting its stability, revised stability calculations shall be prepared and submitted to the Administration for approval. Such revised information shall be supplied to the master and the superseded information removed from the ship.

Regulation IV/4 – Bilge Pumping Arrangements

- 1 An efficient bilge pumping arrangement shall be provided which under all practical conditions shall be capable of pumping from and draining any watertight compartment other than a space permanently appropriated for the carriage of fresh water, water ballast, oil fuel or liquid cargoes for which other efficient means for pumping are provided. Where the Administration is satisfied that the safety of the ship is not impaired, the bilge pumping arrangements may be dispensed with in any particular compartment and unmanned barges without machinery spaces.
- 2 The arrangement of the bilge and ballast pumping system shall be such as to prevent the possibility of water passing from the sea and from water ballast spaces into the cargo and machinery spaces, or from one compartment to another.
- 3 All distribution boxes and manually operated valves in connection with bilge pumping arrangements shall be in positions which are accessible under ordinary circumstances.
- 4 At least two bilge pumps connected to the main bilge system shall be provided, one of which may be driven by the propulsion machinery. The total capacity of the required bilge pumps shall not be less than 125 percent of the total capacity of the required main fire

⁹ To issue MC pertaining to the standard to be applied.

¹⁰ Refer to paragraph 4.5 of the Stability Code.

¹¹ Reference is made to Chapter 2 of the Stability Code.

pump referred to in Regulation VII/3 of these Rules and Regulations.

- 5 Sanitary, ballast and general services pumps provided with suitable connections for bilge suction may be accepted as independent power bilge pumps.
- 6 A bilge ejector in combination with an independently driven high pressure sea-water pump may be installed, provided this arrangement is to the satisfaction of the Administration.
- 7 Bilge pipes shall not be led through fuel oil, ballast or double bottom tanks, unless pipes are of heavy gauge steel construction.

CHAPTER V

MACHINERY INSTALLATION

Regulation V/1 – General Requirements

- 1 All boilers and other pressure vessels, all parts of machinery, all steam, hydraulic, pneumatic and other systems and their associated fittings, which are under internal pressure, shall be subjected to appropriate tests including a pressure test before being put into service. Corresponding certification from the manufacturer, classification society or other recognized body has to be provided to the Administration.
- 2 Means shall be provided to ensure that the machinery can be brought into operation from the dead ship condition without external aid.
- 3 Adequate provisions shall be made to facilitate cleaning, inspection and maintenance of machinery installations including boilers and other pressure vessels.
- 4 Where risk from over speeding of machinery exists, means shall be provided to ensure that the safe speed is not exceeded.
- 5 Where main or auxiliary machinery including pressure vessels or any parts of such machinery are subjected to internal pressure and may be subject to dangerous overpressure, means shall be provided where practicable to protect against such excessive pressure.
- 6 All gearing and every shaft and coupling used for transmission of power to machinery essential for the propulsion and safety of the ship or for the safety of persons on board shall be so designed and constructed that they will withstand the maximum working stresses which may be subjected in all service conditions, and due consideration shall be

given to the type of engines by which they are driven of which they form apart.

- 7 Main turbine propulsions machinery and, where applicable, main internal combustion propulsion machinery and auxiliary machinery shall be provided with automatic shutoff arrangements in the case of failures such as lubricating oil supply failure, which could lead rapidly to complete breakdown, serious damage or explosion. The Administration may permit provisions for overriding automatic shutoff devices.
- 8 Internal combustion engines of a cylinder diameter of 200 mm or crankcase volume of 0.6m³ and above shall be provided with crankcase explosion relief valves for a suitable type with sufficient relief area. The relief valves shall be arranged or provided with means to ensure that discharge from them is so directed as to minimize the possibility of injury to personnel.

Regulation V/2 – Machinery Controls

- 1 Main and auxiliary machinery essential for the propulsion and safety of the ship shall be provided with effective means for its operation and control.
- 2 Means shall be provided whereby normal operations of propulsion machinery can be sustained or restored even though one of the essential auxiliaries becomes inoperative. Special consideration shall be given to the malfunctioning of:
 - .1 an electrical power generator which serves as a main source of electrical power;
 - .2 the sources of lubricating oil pressure;
 - .3 the fuel oil supply systems for engines;
 - .4 the sources of water pressure;
 - .5 an air compressor and receiver for standing or for control purposes;
 - .6 the hydraulic, pneumatic or electrical means for control in main propulsion machinery including controllable pitch propellers;
 - .7 steam boilers and boiler feed systems, if provided. However, the Administration, having regard to overall safety considerations may accept a partial reduction in propulsion capability from normal operation.
- 3 Special consideration shall be given to the design, construction and installation of propulsion machinery system so that any

mode of their vibrations shall not cause undue stresses in machinery in its normal operating ranges.

Regulation V/3 – Remote Control of Propulsion Machinery

- 1 Where remote control propulsion machinery from the navigating bridge is provided and the machinery spaces are intended to be manned, the following shall apply:
 - .1 the speed, direction of thrust and, if applicable, the pitch of the propeller shall be fully controllable from the navigating bridge under all sailing conditions, including maneuvering;
 - .2 the remote control shall be performed, for each independent propeller, by a control device so designed and constructed that its operation does not require particular attention to the operational details of the machinery. Where multiple propellers are designed to operate simultaneously, they may be controlled by one control device;
 - .3 the main propulsion machinery shall be provided with an emergency stopping device on the navigating bridge which shall be independent of the navigating bridge control system;
 - .4 propulsion machinery orders from the navigating bridge shall be indicated in the main machinery control room or at the maneuvering platform as appropriate;
 - .5 remote control of the propulsion machinery shall be possible only from one location at a time; at such locations interconnected control positions are permitted. At each location there shall be an indicator showing which location is in control of the propulsion machinery. The transfer of control between the navigating bridge and machinery spaces shall be possible only in the main machinery space or the main machinery control room. This system shall include means to prevent the propelling thrust from altering significantly when transferring control from one location to another;
 - .6 it shall be possible to control the propulsion machinery locally, even in the case of failure in any part of the remote control system;
 - .7 the design of the remote control system shall be such that in case of its failure an alarm will be given. Unless the Administration considers it impracticable the preset speed and direction of thrust of the propellers shall be maintained until local control is in operation;

.8 indicators shall be fitted on the navigating bridge for:

- .1 propeller speed and direction of rotation in the case of fixed pitch propellers;
- .2 propeller speed and pitch position in the case of controllable pitch propellers;

an alarm shall be provided on the navigating bridge and in the machinery space to indicate low starting air pressure or low electrical power which shall be set at a level to permit further main engine starting operation. If the remote control systems of the propulsion machinery is designed for automatic starting, the number of automatic consecutive attempts which fail to produce a start shall be limited in order to safeguard sufficient starting air pressure of adequate electrical power for starting locally. In this context, the recommendations or instructions of the manufacturers for remote controlled starting have to be observed. In case these are not available, an organization, recognized by the Administration, has to conduct tests and shall issue a certification stipulating the capacity (number of starts) of the available air pressure or electrical supply.

- 2 In all ships where the main propulsion and associated machinery, including main electrical supply, are provided with various degrees of automatic or remote control and are under continuous manual supervision from a control room, the arrangements and controls shall be so designed, equipped and installed that the machinery operation will be as safe and effective as if it were under direct supervision. Particular consideration shall be given to protect such spaces against fire and flooding.

Regulation V/4 – Periodically Unattended Machinery Spaces

- 1 Ships having periodically unattended machinery spaces shall, as far as practicable and reasonable in the opinion of the Administration, comply with the applicable requirements of SOLAS'74, as amended for such machinery spaces.
- 2 Where alternative arrangements are provided the Administration shall ensure that:
 - .1 the safety of the ship in all sailing conditions, including maneuvering, is equivalent to that of a ship having manned machinery spaces;

- .2 documentary evidence indicating that such arrangements are satisfactory is provided.

Regulation V/5 – Steam Boilers and Boiler Feed System

- 1 Every steam boiler and every unfired steam generator shall be provided with not less than two safety valves of adequate capacity. However, having regard to the output or any other features of any boiler or unfired steam generator, the Administration may permit only one safety valve to be fitted if it is satisfied that adequate protection against overpressure is thereby provided.
- 2 Each oil-fired boiler which is intended to operate without manual supervision shall have safety arrangements which shut off the fuel supply and give an alarm in the case of low water level, air supply failure or flame failure.
- 3 Every steam generating system which provides services essential for the safety of the ship, or which could be rendered dangerous by the failure of its feed water supply, shall be provided with not less than two separate feedwater systems from and including the feed pumps, noting that a single penetration of the steam drum is acceptable. Unless overpressure is prevented by the pump characteristics means shall be provided which will prevent overpressure in any part of the systems.
- 4 Boilers shall be provided with means to supervise and control the quality of the feedwater. Suitable arrangements shall be provided to preclude, as far as practicable, the entry of oil or other contaminants which may adversely affect the boiler.
- 5 Every boiler essential for the safety of the ship and designed to contain water at a specified level shall be provided with at least two means for indicating its water level, at least one of which shall be a direct reading gauge glass.
- 6 Water tube boilers serving turbine machinery shall be fitted with a high-water-level alarm.

Regulation V/6 – Steam Pipe Systems

- 1 Every steam pipe and every fittings connected thereto through which steam may pass shall be so designed, constructed and installed as to withstand the maximum working stresses to which it may be subjected.
- 2 Means shall be provided for draining every steam pipe in which dangerous water hammer action might otherwise occur.
- 3 If a steam pipe or fitting may receive steam from any source at a higher pressure than that

for which it is designed a suitable pressure reducing valve or pressure gauge shall be fitted.

Regulation V/7 – Air Pressure Systems

- 1 In every ship means shall be provided to prevent overpressure in any part of compressed air systems and wherever water jackets or casings of air compressors and coolers might be subjected to dangerous overpressure due to leakage into them from air pressure parts. Suitable pressure relief arrangements shall be provided for all systems.
- 2 The main starting air arrangements for main propulsion internal combustion engines shall be adequately protected against the effects of backfiring and internal explosion in the starting pipes.
- 3 All discharge pipes from starting air compressors shall lead directly to the starting air receivers, and all starting pipes from the air receivers to main or auxiliary engines shall be entirely separate from the compressor discharge pipe system.
- 4 Provision shall be made to reduce to a minimum the entry of oil into the air pressure systems and to drain these systems.

Regulation V/8 – Ventilation Systems in Machinery Spaces

- 1 Machinery spaces of category A shall be adequately ventilated so as to ensure that when machinery or boilers therein are operating at full power in all weather conditions including heavy weather, an adequate supply of air is maintained to the spaces for the safety and comfort of personnel and the operation of the machinery. Any other machinery space shall be adequately ventilated appropriate for the purpose of that machinery space.
- 2 In addition to complying with the requirements of paragraph 1, the ventilation of machinery spaces shall also be sufficient under all normal conditions to prevent accumulation of oil vapor.

Regulation V/9 – Protection Against Noise¹²

Measures shall be taken to reduce machinery noise in machinery spaces to acceptable levels as determined by the Administration. If this noise cannot be sufficiently reduced, the source of excessive noise shall be suitably insulated or isolated or a refuge from noise shall be provided if the space is required to be manned. Ear protectors shall be provided for personnel required to enter

¹² Refer to the Code on Noise levels on Board Ships adopted by the organization by Res. A468(XII)

such spaces, if necessary. In case of ear protectors being applied, it must be made sure by appropriate optical means, than an alarm will be attended to by the person in charge.

Regulation V/10 – Means of Going Astern

- 1 Sufficient power for going astern shall be provided to secure proper control of the ship in all normal circumstances.
- 2 The ability of the machinery to reverse the direction of thrust of the propeller in sufficient time and so to bring the ship to rest within a reasonable distance from maximum ahead service speed shall be demonstrated and recorded.
- 3 The stopping times, ship headings and distances recorded on trials, together with the results of trial to determine the ability of ships having multiple propellers to navigate and maneuver with one or more propellers inoperative shall be available on board for the use of the master or designated personnel.¹³
- 4 Where the ship is provided with supplementary means for maneuvering or stopping, the effectiveness of such means shall be demonstrated and recorded as referred to in paragraphs 2 and 3.

Regulation V/11 – Steering Gear

- 1 Unless expressly provided otherwise, every ship shall be provided with a main steering gear and subject to the provisions of paragraph 4, with an auxiliary means of steering the ship in the event of failure of the steering gear.
- 2 The main steering gear shall be of adequate strength and capable of steering the ship at maximum ahead service speed. The main steering gear and rudder stock shall be so designed that they will not be damaged at maximum astern speed.
- 3 The auxiliary means of steering shall be of adequate strength and capable of steering the ship at navigable speed and of being brought speedily into action in an emergency.
- 4 Where the power-operated main and auxiliary steering gear units are provided:
 - .1 the main steering gear shall be capable of putting the rudder over from 35° on one side to 35° on the other side with the ship at its deepest seagoing draught and

running ahead at maximum ahead service speed and, under the same conditions, from 35° on either side to 30° on the other side is not more than 28 seconds;

- .2 the auxiliary steering gear shall be capable of putting the rudder over from 15° on one side to 15° on the other side in not more than 60 seconds with the ship at its deepest seagoing draught and running ahead at one half of the maximum ahead service speed or 7 knots, whichever is the greater;
- .3 where power operated main steering gear units and the connections are fitted in duplicate and each unit complies with the provisions of paragraph 3 no auxiliary steering unit need be required.
- 5 The main steering power unit shall be arranged to restart either by manual or automatic means when power is restored after a power failure.
- 6 In the event of a power failure to any one of the steering gear power units, an audible and a visual alarm shall be given on the navigating bridge.
- 7 The angular position of the rudder, if the main steering gear is power-operated, shall be indicated on the navigating bridge. The rudder angle indication shall be independent of the steering gear control system.
- 8 Where a non-conventional rudder is installed, the Administration shall give special consideration to the steering system, so as to ensure that an acceptable degree of reliability and effectiveness which is based on the provisions of these Rules and Regulations is provided.
- 9 A means of communication shall be provided, where necessary, between the navigating bridge and the steering gear compartment.

Regulation V/12 – Communication Between Navigating Bridge and Machinery Spaces

- 1 Ships shall be provided with at least two independent means for communicating orders between navigating bridge and the machinery space or control room from which the main propulsion engines are normally controlled. One of the means shall be an engine-room telegraph. The arrangement of these means shall be to the satisfaction of the Administration.
- 2 The engine-room telegraph referred to in paragraph 1 may be dispensed with if the main propulsion engine is directly controlled from the navigating bridge under normal operating conditions.

¹³ Reference is made to the Recommendation on Information to be included in the Maneuvering Booklets (Res. A(209(VII))) and to the Recommendation on the Provision and the Display of Maneuvering Information on Board Ships (Res. A 601 (15)).

- 3 In lieu of meeting the requirements of paragraph 1, ships of less than 24 m in length may be provided with only one means of communications referred to in paragraph 1, if the Administration is satisfied that, due to close proximity of the navigating bridge and the position of local control of the main propulsion machinery, two means of communication are not necessary.
- 4 Appropriate means of communication shall be provided to any position (other than navigating bridge) from which the engines may be controlled.

Regulation V/13 – Engineer’s Alarm

An engineer’s alarm shall be provided to be operated from the engine control room or at the maneuvering platform as appropriate and shall be clearly audible in the engineer’s accommodation. The Administration may dispense with this requirement if satisfied that, due to particular manning patterns adopted in the engine room or close proximity of the engine control room or the maneuvering platform and the engineer’s accommodation, no engineer’s alarm is necessary.

CHAPTER VI

ELECTRICAL INSTALLATIONS

Regulation VI/1 – General Electrical Requirements

- 1 Electrical installations on ships and manned barges shall comply with the requirements of this Chapter, except as provided otherwise in Regulation VI/5.
- 2 Electrical installations shall be such that:
 - .1 all electrical auxiliary services necessary for maintaining the ship in normal operational and habitable conditions will be ensured without recourse to the emergency source of electrical power;
 - .2 electrical services essential for safety will be ensured under various emergency conditions; and
 - .3 the safety of passengers, crew and ship from electrical hazards will be ensured.

Regulation VI/2 – Safety Precautions

- 1 Exposed metal parts of electrical machines or equipment which are not intended to be live but which are liable under fault conditions to become live shall be earthed unless the machines or equipment are:
 - .1 supplied at a voltage not exceeding 55 V direct current or 55 V, root mean square between conductors. Auto-transformers

shall not be used for the purpose of achieving this voltage; or

- .2 supplied at a voltage not exceeding 250 V by safely isolating transformers supplying only one consuming device; or
 - .3 constructed in accordance with the principle of double insulation.
- 2 The Administration may require additional precautions for portable electrical equipment for use in confined or exceptionally damp spaces where particular risks due to conductivity may exist.
 - 3 All electrical apparatus shall be constructed and so installed as not to cause injury when handled or touched in the normal manner.
 - 4 Main and emergency switchboards shall be so arranged as to give easy access may be needed to apparatus and equipment, without danger to personnel. The sides and the rear and, where necessary, the front of switchboards shall be suitably guarded. Exposed live parts having voltages to earth exceeding a voltage to be specified by the Administration shall not be installed on the front of such switchboards. Where necessary, non-conducting mats or gratings shall be provided at the front and rear of the switchboard.¹⁴
 - 5 The hull return system of distribution shall not be used for any purpose in a tanker or a barge carrying liquid cargoes of flammable nature in bulk.
 - 6 The requirement of paragraph 5 does not preclude under conditions approved by the Administration the use of:
 - .1 impressed current cathodic protective systems;
 - .2 limited and locally earthed systems (e.g. engine starting system);
 - .3 limited and locally earthed welding systems; where the Administration is satisfied that the equipotential of the structure is assured in a satisfactory manner, welding systems with hull return may be installed without restriction imposed by paragraph 5; or
 - .4 insulation level monitoring devices, provided the circulation current does not exceed 30mA under the most unfavorable conditions.
 - 7 Where the hull return system is used, all final sub-circuits, i.e. all circuits fitted after the last protective device, shall be two-wire and special precautions shall be taken to the satisfaction of the Administration.

¹⁴ Reference is made to the Philippine Electrical Code.

- 8 Earthed distribution system shall not be used in a tanker or barge carrying liquid cargoes of flammable nature in bulk. The Administration may permit the use of the following earthed system:
- .1 power supplied, control circuits and instrumentation circuits where technical or safety reasons preclude the use of a system with no connection to earth, provided the current in the hull is limited to not more than 5 A in both the normal and fault conditions;
 - .2 limited and locally earthed systems, provided that any possible resulting current does not flow directly through any of the dangerous spaces; or
 - .3 alternating current power network of 1000 V root mean square (line to line) and over, provided that any possible resulting current does not flow directly through any of the dangerous spaces.
- 9 When a distribution system, whether primary or secondary, for power, heating or lighting, with no connection to earth is used, a device capable of continuously monitoring the insulation level to earth and of giving an audible or visual indication of abnormally low insulation values shall be provided.
- 10 Except as permitted by the Administration in exceptional circumstances, all metal sheaths and armor of cables shall be electrically continuous and shall be earthed.
- 11 All electric cables and wiring external to equipment shall be at least of a flame-retardant type and shall be so installed as not to impair their original flame-retarding properties. Where necessary for particular applications the Administrations may permit the use of special types of cables such as radio frequency cables, which do not comply with the foregoing.
- 12 Cables and wiring serving essential or emergency power, lighting, internal communications or signals shall so far as practicable be routed clear of galleys, laundries, machinery spaces of category A and their casings and other high fire risk areas. Cables connecting fire pumps to the emergency switchboard shall be of a fire-resistant type where they pass through high fire risk areas. Where practicable all such cables shall be run in such a manner as to preclude their being rendered unserviceable by heating of the bulkheads that may be caused by a fire in an adjacent space.
- 13 Where cables which are installed in hazardous areas introduce the risk of fire or explosion in the event of an electrical fault in such areas, special precautions against such risk shall be taken to the satisfaction of the Administration.
- 14 Cables and wiring shall be installed and supported in such a manner as to avoid chafing or other damage.
- 15 Terminations and joints in all conductors shall be so made as to retain the original electrical, mechanical, flame-retarding and, where necessary, fire-resisting properties of the cables.
- 16 Each separate circuit shall be protected against short circuit and against overload, except the circuit for the steering gear and where the Administration may exceptionally otherwise permit. The rating or appropriate setting of the overload protective device for each circuit shall be permanently indicated at the location of the protective device.
- 17 Lighting fittings shall be so arranged as to prevent temperatures rises which could damage the cables and wiring, and to prevent surrounding material from becoming excessively hot.
- 18 All lighting and power circuits terminating in a bunker or cargo space shall be provided with a multiple-pole switch outside the space for disconnecting such circuits.
- 19 Accumulator batteries shall be suitably housed, and compartments used primarily for their accommodation shall be properly constructed and efficiently ventilated.
- 20 Electrical or other equipment which may constitute a source of ignition of flammable vapors shall not be permitted in those compartments except as permitted in paragraph 22.
- 21 Accumulator batteries except for batteries used in self-contained battery operated lights shall not be located in sleeping quarters except where hermetically sealed to the satisfaction of the Administration.
- 22 No electrical equipment shall be installed in any space where flammable mixtures are liable to collect including those on board tankers or barges carrying liquid cargoes of flammable nature in bulk or in compartments assigned principally to accumulator batteries, in paint lockers, acetylene stores or similar spaces, unless the Administration is satisfied that such equipment is:
- .1 essential for operational purposes;
 - .2 of a type which will not ignite the mixture concerned;
 - .3 appropriate to the space concerned; and

.4 appropriately certified for safe usage in the dusts, vapors or gases likely to be encountered.

23 Lighting conductors shall be fitted to all masts or topmasts constructed of non-conducting materials. In ships constructed of non-conductive materials the lightning conductors shall be connected by suitable conductors to copper plate fixed to the ship's hull well below the waterline.

Regulation VI/3 – Main Source of Electrical Power

1 A main source of electrical power of sufficient capacity to supply those services mentioned in Regulation VI/1 paragraph 2.1 shall be provided. This main source of electrical power shall consist of at least two generating sets (one could be accepted if driven by the main propulsion engine) and shall comply with the following:

.1 the capacity of these generating sets shall be such that in the event of any one generating set being stopped it will still be possible to supply those services necessary to provide normal operational conditions of propulsion and safety;

.2 the arrangements of the ship's main source of electrical power shall be such that the services referred to in Regulation VI/1 paragraph 2.1 can be maintained regardless of the speed and direction of rotation of the propulsion machinery or shafting;

.3 in addition, the generating sets shall be such as to ensure that with any one generator or its primary source of power out of operation, the remaining generating sets shall be capable of providing the electrical services necessary to start the main propulsion plant from a dead ship condition. The emergency source of electrical power may be used for such electrical service if its capability is sufficient to provide at the same time those services required to be supplied by Regulation VI/4 paragraph 5.

2 A main electrical lighting system which shall provide illumination throughout those parts of the ship normally accessible to and used by passengers or crew shall be supplied from the main source of electrical power.

3 The arrangement of the main electric lighting system shall be such that a fire or other casualty in spaces containing the main source of electrical power, associated transforming equipment, if any, and the main switchboard will not render the emergency electric lighting

system required by Regulation VI/4 paragraph 5 inoperative.

4 The arrangements of the emergency electric lighting system shall be such that a fire or other casualty in spaces containing the emergency source of electrical power, associated transforming equipment, if any, and the emergency switchboard will not render the main electric lighting system required by this Regulation inoperative.

Regulation VI/4 – Emergency Source of Electrical Power

1 A self-contained emergency source of electrical power shall be provided.

2 The emergency source of electrical power, associated transforming equipment, if any, and the emergency switchboard shall be located above the uppermost continuous deck and shall be readily accessible from the open deck. They shall not be located forward of the collision bulkhead, except where permitted by the Administration in exceptional circumstances.

3 The location of the emergency source of electrical power, associated transforming equipment, if any, the emergency switchboard in relation to the main source of electrical power, associated transforming equipment, if any, and the main switchboard shall be such as to ensure, to the satisfaction of the Administration, that a fire or other casualty in the space containing the main source of electrical power, associated transforming equipment, if any, and the main switchboard, or in any machinery space category A will not interfere with the supply, control and distribution of emergency electrical power.

4 Provided that suitable measures are taken for safeguarding independent emergency operation under all circumstances, the emergency generator may be used, exceptionally, and for short periods, to supply non-emergency circuits.

5 The electrical power available shall be sufficient to supply all those services that are essential for safety in an emergency, due regard being paid to such services as may have to be operated simultaneously. The emergency source of electrical power shall be capable, having regard to starting currents and the transitory nature of certain loads, of supplying simultaneously at least the following services for the periods specified hereinafter, if they depend upon an electrical source for their operation:

.1 For a period of three hours, emergency lighting at every muster and embarkation

- station and over the sides in the way of such stations;
- .2 For a period of 12 hours, emergency lighting;
 - .1 in all service and accommodation alleys, stairways and exits;
 - .2 in spaces containing propulsion machinery used for navigation, if any and main source of electrical power and their control positions;
 - .3 in all control stations, machinery control rooms and at each main and emergency switchboard;
 - .4 at all stowage positions for firemen's outfits;
 - .5 at the steering gear, if any; and
 - .6 at the emergency fire pump and its control position;
 - .3 For a period of 12 hours, the navigation lights and other lights required by COLREG;
 - .4 For a period of 12 hours:
 - .1 all communication equipment required for transmission of distress and safety messages, including ship's whistle and all internal communication equipment as required in an emergency;
 - .2 the fire detection and fire alarm systems; and
 - .3 operation of emergency fire pumps, if electrically operated.
- 6 In a ship regularly engaged in voyages of short duration, the Administration, if satisfied that an adequate standard of safety would be attained, may accept a lesser period than the 12 hour period specified in sub-paragraphs 5.2 to 5.4 of this Regulation but not less than three hours.
- 7 The emergency source of electrical power may be either:
- .1 an accumulator battery capable of carrying the emergency electrical load without recharging or excessive voltage drop; or
 - .2 a generator driven by a suitable prime mover with an independent fuel supply and starting to the satisfaction of the Administration.
- 8 Where the emergency source of electrical power is an accumulator battery, it shall be

capable of automatically connecting to the emergency switchboard in the event of failure of the main source of electrical power. Where an automatic connection to the emergency switchboard is not practical, manual connection may be acceptable to the satisfaction of the Administration.

- 9 Where the emergency source of power is a generator, it shall be automatically started and connected to the emergency switchboard within 45 seconds of the loss of the main source of electrical power. It shall be driven by a prime mover with an independent fuel supply having a flash point of not less than 43°C. Automatic starting of the emergency generator will not be required where a transitional source of power to the satisfaction of the Administration is provided.

Regulation VI/5 – Special Considerations

The Administration may waive any of the requirements specified in this chapter taking into account the requirements of electrical power for operating the propulsion machinery and the size of the ship.

CHAPTER VII

FIRE PROTECTION AND FIRE EXTINCTION

Regulation VII/1 –Application

- 1 Unless expressly provided otherwise, this Chapter shall apply to all ships propelled by mechanical means and manned barges.
- 2 Regulation VII/12 shall apply to ships and manned barges of less than 24 m in length.

Regulation VII/2 – Fire Pumps

- 1 Every ship shall be provided with at least one independent power-operated fire pump, capable of delivering a jet of water as required by Regulation VII/3 paragraph 4. In ships of 150 gt and above propelled by mechanical means, such pump shall be operated by means other than the propulsion machinery of the ship.
- 2 Where two main fire pumps are provided, the capacity of one of the two shall not be less than 40 percent of their total capacity.
- 3 Sanitary, bilge, ballast or general service pumps may be accepted as fire pumps, provided that they are not normally used for pumping oil and that if they are subject to occasional duty for the transfer or pumping of

oil fuel, suitable change-over arrangements are fitted.

- 4 Every fire pump shall be arranged to draw water directly from the sea and discharge into a fixed fire main, if any. However, in ships with high suction lifts, booster pumps and storage tanks may be installed provided such arrangement satisfies all the requirements of this Regulation.
- 5 Centrifugal pumps or other pumps connected to the fire main through which back flow could occur shall be fitted with non-return valves.
- 6 Where the fire pumps are capable of developing a pressure exceeding the design pressure of the fire mains, water service pipes, hydrants and hoses, relief valves shall be fitted. These valves shall be so placed and adjusted as to prevent excessive pressure in any part of the fire main system.
- 7 Location and arrangement of pumps required for the provision of water for other fire extinguishing systems required by this Chapter, their sources of power and their controls shall be installed outside the space or spaces protected by such systems and shall be so arranged that a fire in the space or spaces protected will not put any such system out of action.
- 8 Location and arrangements of pumps shall take into account:
 - .1 if a fire in any one compartment can put all the fire pumps out of action, there shall be an alternate means to extinguish the fire;
 - .2 an emergency fire pump shall be independently driven self-contained pump either with its own prime mover and fuel supply fitted in an accessible position outside the compartment which may be an emergency generator of sufficient capacity and positioned in a safe place outside the engine room and above the freeboard deck;
 - .3 the emergency fire pump, sea suction and other valves shall be operable from outside the compartment containing the main fire pump and in a position not likely to be cut off by in that compartment;
 - .4 the capacity of the emergency pump shall not be less than 40 percent of the total capacity of the fire pumps required by this Regulation.

Regulation VII/3 – Fire Mains, Water Service Pipes and Fire Hydrants

- 1 A fire main shall be provided where more than one hydrant is required to provide a jet of water under the provisions of paragraph 3 of this Regulation.
- 2 The diameter of the fire main and water service pipes shall be sufficient for the effective distribution of the maximum required discharge from the fire pump or where more than one pump is provided the discharge from at least two pumps operated simultaneously. Such diameter need only be sufficient for a discharge of 100m³/h with minimum pressure as indicated in paragraph 4.
- 3 In a ship where one or more main fire pumps are provided, the diameter of the fire main and of the water service pipes connecting the hydrants thereto shall be sufficient for the effective distribution of the maximum required discharge specified in paragraph 2.
- 4 Where only one hydrant is required, the minimum pressure at the hydrant shall be 0.21 N/mm² (2.1kg/cm²). Where more than one hydrant is required, the main fire pump shall be capable, when discharging the maximum amount through adjacent fire hydrants with nozzles of the sizes specified in Regulation VII/4, of maintaining at all hydrants a minimum pressure of 0.21 N/mm² (2.1 kg/cm²). In any case, the maximum pressure at any hydrant shall not exceed that at which the effective control of fire hose can be demonstrated. For manned barges of 1000 gt and above, the minimum pressure at the hydrant shall be 0.25 N/mm².
- 5 In every ship, the number and position of hydrants shall be such that at least one jet of water from a single length of hose can reach any part of the ship normally accessible to the crew while the ship is being navigated and any part of any cargo space when empty. In the case of ships propelled by mechanical means in any Ro-Ro cargo or in any special category spaces, at least two jets of water not emanating from the same hydrant shall reach any part of such space, each from a single length of hose. Furthermore, such hydrants shall be positioned near the accesses to the protected spaces.
- 6 Pipes and hydrants shall be arranged as follows:
 - .1 material readily rendered ineffective by heat shall not be used for fire mains and hydrants unless adequately protected. The pipes and hydrants shall be so placed that the fore hoses may be easily coupled to them;

- .2 in ships where deck cargo may be carried, the position of the hydrants shall be such that they are always readily accessible and the pipes shall be arranged as far as practicable to avoid risk of damage by such cargo;
- .3 a valve shall be fitted to serve each fire hose so that any fire hose may be removed while the fire pumps are at work;
- .4 fire mains shall have no connections other than those required for fire fighting except for the purposes of washing the deck and anchor chains or operating the chain locker bilge ejector.

Regulation VII/4 – Fire Hoses and Nozzles

- 1 Every ship shall be provided with a minimum of two fire hoses.
- 2 Where hydrants are required in any machinery spaces, each hydrant shall be provided with a fire hose. Where practicable, fire hoses shall be connected to the hydrants in such machinery spaces.
- 3 Notwithstanding the requirement of paragraph 1 and 2, the Administration may increase the required number of fire hoses so as to ensure that hoses in sufficient number are available and accessible at all times, having regard to the type of ship and the nature of trade in which ship is engaged.
- 4 A single length of fire hose shall not exceed 20 m.
- 5 Fire hoses shall be oil-resistant and of approved material.
- 6 Fire hoses of unlined canvas shall have a diameter of not less than 64 mm. Lined hoses of at least 45 mm internal diameter having a throughput comparable to that of 64 mm internal diameter unlined canvas at corresponding pressure may be used. Fire hoses of an internal diameter not less than 32 mm may be accepted in accommodation spaces of all ships.
- 7 Unless one fire hose and nozzle is provided for each hydrant, there shall be complete interchangeability of fire hose coupling or nozzles.
- 8 Fire hoses provided in compliance with this Regulation shall not be used for any purpose other than fire fighting or testing of the fire appliances.
- 9 Every fire hose shall be provided with approved nozzle and the necessary couplings.

10 Nozzles shall comply with the following requirements:

- .1 all nozzles shall be of dual purpose type and type-approved by the Administration;
- .2 nozzle sizes shall be 12 mm, 16 mm, 19 mm or as near thereto as possible. Larger diameter nozzles may be permitted at the discretion of the Administration.
- .3 for accommodation and services spaces, a nozzle size greater than 12 mm need not be used;
- .4 for machinery spaces and exterior locations, the nozzle size shall be such as to obtain the maximum discharge possible from the required jets at the pressure specified in Regulation VII/3 paragraph 4 from the smallest pump, provided that a nozzle size greater than 19 mm need not be used.

Regulation VII/5 – Portable Fire Extinguishers – General Requirements

- 1 All fire extinguishers shall be of approved types and designs.
- 2 The capacity of required portable fluid extinguishers shall be not more than 13.5 liters and not less than nine liters.
- 3 The capacity of the required portable carbon dioxide extinguishers, the portable mechanical foam extinguishers and the portable dry powder fire extinguishers shall be at least equivalent to that of a nine liters fluid extinguisher.
- 4 All required portable fire extinguishers shall not exceed 23 kg in weight in a fully charged condition and shall be at least as portable as 13.5 liters fluid fire extinguisher.
- 5 Spare charges shall be provided for every required portable fire extinguisher provided in compliance with these Rules and Regulations, except that for each such fire extinguisher which is of a type that cannot readily be recharged while the ship is at sea, an additional fire extinguisher of the same type, or its equivalent, shall be provided in lieu of a spare charge.
- 6 Fire extinguishers containing an extinguishing medium which in the opinion of the Administration, either by itself or under expected conditions of use gives off toxic gasses in such quantities as to endanger persons shall not be permitted.
- 7 Fire extinguisher shall be periodically examined and subjected to such tests as follows:

- .1 The condition of the charges of extinguishers other than carbon dioxide extinguishers, shall be checked annually. If on checking there is any indication of deterioration the charges shall be renewed and, in any case, at least every four years. A record of the annual check is to be fixed to each fire extinguisher;
 - .2 Carbon dioxide extinguisher and gas propellant cartridges of other extinguishers shall be examined externally for corrosion and for loss of content annually. They shall be recharged or renewed if the loss of gas by weight exceeds 10 percent of the original charge as stamped on the bottles or cartridge, or have corroded excessively externally;
 - .3 All portable fire extinguishers, other than carbon dioxide extinguishers, shall be tested by hydraulic pressure once every four years and the date of such test legibly marked on the extinguisher;
 - .4 New carbon dioxide extinguishers which do not require to be recharged, shall be tested by hydraulic pressure 20 years after manufacture and thereafter every five years;
 - .5 Carbon dioxide extinguishers which require recharging shall be pressure-tested before being recharged if four years have elapsed since the last hydraulic test was carried out.
- 8 One of the portable fire extinguishers intended for use in any space shall be stowed near the entrance to that space.
- 9 Halon fire extinguishers shall not be used.
- 10 Each fire extinguisher shall, as far as it is practicable, be clearly marked on the front with a label of durable material containing the following minimum information in English;
- .1 name of manufacturer, year of manufacture and serial number;
 - .2 type of fire for which the extinguisher is suitable;
 - .3 type and quantity of extinguishing medium;
 - .4 approval details;
 - .5 pictorial and legible operating instructions;
 - .6 intervals for recharging;
 - .7 temperature range over which the extinguisher will operate satisfactorily;

.8 test pressure; and

.9 date last tested.

Regulation VII/6 – Portable Fire Extinguishers

- 1 In every ship there shall be provided a sufficient number of approved portable fire extinguishers to ensure that at least one extinguisher will be readily available for use in any part of accommodation spaces, service spaces, and control stations. The number of such fire extinguishers shall be as follows;

Length of Vessel	Number of Extinguishers
Not over 10 m	2
Over 10 m but not over 15 m	3
Over 15 m but not over 24 m	5
Over 24 m	*

* The ship's approved fire control plan shall be the basis in determining the minimum number of portable fire extinguishers required.

- 2 In every ship, where, in the opinion of the Administration, electrical installations fitted in accommodation, service and control stations constitute hazard of fire or explosion, additional fire extinguishers suitable for extinguishing electrical fires shall be provided.

Regulation VII/7 – Fixed Fire Extinguishing Systems

- 1 Subject to the provisions of paragraph 2, fixed fire-extinguishing systems required by this Chapter shall comply with the relevant requirements for these systems specified in the regulations of Chapter II-2 of SOLAS 74.
- 2 Fire halogenated hydrocarbon fire-extinguishing systems shall not be used in new ships or new installations and shall be phased out by year 2002.

Regulation VII/8 – Fire Extinguishing Systems in Machinery Spaces

- 1 Machinery spaces containing main or auxiliary oil-fired boilers or fuel oil units, shall be provided with one of the fixed fire-extinguishing systems required by Chapter II-2 of SOLAS 74. In any case, if the engine and boiler rooms are not entirely separate, or if fuel oil can drain from the boiler rooms into the engine room, the combined boiler and engine room shall be considered as one compartment and shall be provided with:
 - .1 at least one portable extinguisher suitable for extinguishing oil fires for each of burner. However, the total capacity of such extinguishers shall not be less than 18 liters or equivalent and need not exceed 45 liters or equivalent in each boiler room;

- .2 at least two portable extinguishers suitable for extinguishing oil fires in each space in which part of oil fuel units is situated;
 - .3 a receptacle containing not less than 0.15 m³ of sand, sawdust impregnated with soda or other approved dry material to the satisfaction of the Administration in each firing space. Alternatively, an approved portable extinguisher may be substituted.
- 2 Machinery spaces containing internal combustion machinery having a total power output of 750 kW shall be provided with:
 - .1 one of the fixed fire-extinguishing systems referred to in Regulation VII/7; and
 - .2 at least one portable extinguisher suitable for extinguishing oil fires for each 750 kW of engine power output or part thereof, but the total number of such fire extinguishers so supplied shall not be less than two and need not exceed six.
 - 3 Machinery spaces containing internal combustion type machinery having a total power output of less than 750 kW which do not comply with the requirement of paragraph 2, such spaces shall at least be provided with:
 - .1 at least one portable fire extinguisher suitable for extinguishing oil fires for each 75 kW or part thereof of such machinery, but the total number of such extinguishers so supplied shall not be less than two and need not exceed six; or
 - .2 such other arrangements as the Administration considers adequate.
 - 4 Machinery spaces containing electrical installations shall be provided with one or more fire extinguishers suitable for extinguishing electrical fire as deemed necessary by the Administration having regard to the fire hazards of electrical origin. One or more of the fire extinguishers required by this Regulation may be included in the fire extinguishers required by this paragraph.
 - 5 Where, in the opinion of the Administration, a fire hazard exists in any machinery space for which no specific provision for fire-extinguishing appliances are prescribed in paragraphs 1 to 4, there shall be provided in, or adjacent to, that space a number of approved portable fire extinguishers or other means of fire extinction to the satisfaction of the Administration.
 - 6 Where ships are fitted with auxiliary oil-fired boilers, a receptacle shall be provided in each firing space of every such ship which shall contain at least 0.28 m³ of sand or other dry material suitable for quenching oil fires.

Scoops shall be provided for distributing the contents of the receptacle.

Regulation VII/9 - Fireman's Outfit

- 1 Every ship having machinery spaces of Category A shall be provided with a fireman's outfit.
- 2 A fireman's outfit shall consist of personnel equipment comprising:
 - .1 protective clothing of material to protect the skin from the heat radiating from the fire and from burns and scalding by steam. The outer surface shall be water-resistant;
 - .2 boots and gloves of rubber or other electrically non-conducting material;
 - .3 a rigid helmet providing effective protection against impact;
 - .4 an electric safety lamp (hand lantern) of an approved type with a minimum burning period of three hours;
 - .5 an axe to the satisfaction of the Administration;
 - .6 a breathing apparatus of an approved type.
- 3 The breathing apparatus may be either:
 - .1 a smoke helmet or smoke mask which shall be provided with a suitable air pump and a length of air hose sufficient to reach from the open deck, well clear of hatch or doorway, to, any part of the holds or machinery spaces. If in order to comply with this subparagraph, an air hose exceeding 36 m in length would be necessary, a self-contained breathing apparatus shall be substituted or provided in addition as determined by the Administration; or
 - .2 a self-contained compressed-air-operated breathing apparatus, the volume of air contained in the cylinders of which shall be at least 1200 liters, or other self-contained breathing apparatus which shall be capable of functioning for at least 30 minutes. A number of spare charges, suitable for use with the apparatus provided, shall be available on board to the satisfaction of the Administration.
- 4 Every ship of 500 gt or over shall carry fireman's outfits which shall comply with the following scale:

Tonnage (gt) of the Vessel	Number of Outfits
500 but under 2,500	1
2,500 but under 4,000	2
4,000 and over	3

- 5 For each breathing apparatus, a fireproof lifeline of sufficient length and strength shall be provided capable of being attached by means of a snaphook to the harness of the apparatus or to a separate belt in order to prevent the breathing apparatus becoming detached when the lifeline is operated.
- 6 The Administration may require additional sets of personal equipment and breathing apparatus, having due regard to the size and type of the ship.
- 7 The fireman's outfits or sets of personal equipment shall be so stored as to be easily accessible and ready for use and, where more than one fireman's outfits or more than one set of personnel equipment is carried, they shall be stored in widely separated positions.

Regulation VII/10 - Fireman's Axe

Every ship shall be provided with at least one fireman's axe in an easily accessible location outside the machinery, accommodation and service spaces.

Regulation VII/11 - Fire Control Plan

- 1 In ships having machinery spaces of Category A, there shall be provided a permanently exhibited fire control plan or equivalent to the satisfaction of the Administration,
- 2 In all such ships, fire control plan shall be kept up-to-date. Description in such plan shall be in the English language.
- 3 In addition, instructions concerning the maintenance and operation of all the equipment and installations on board for the fighting and containment of fire shall be kept under one cover, readily available in an accessible position.

Regulation VII/12 - Fire Protection Requirements for Ships of Less Than 24 Meters

- 1 In ships less than 24 m in length the provisions specified in this Chapter may be relaxed to the extent as follows, except that no relaxation shall be granted to ships carrying passengers and hazardous cargoes:
 - .1 In lieu of the provisions specified in Regulation VII/2 paragraph 1, in ships propelled by mechanical means, fire pumps may be driven by the main propulsion machinery provided that the propeller can be readily disconnected or that a controllable pitch propeller is fitted;
 - .2 In lieu of die provisions specified in Regulation VII/4 paragraph 6, fire hoses

of an internal diameter of not less than 32 mm may be accepted;

- .3 Such ships shall be provided with fire buckets as follows:
 - .1 at least three fire buckets shall be provided which shall be of a material which is not readily flammable. They shall be painted red, clearly marked with the word "FIRE" and provided with lanyards of sufficient length, having regard to the size of the ship;
 - .2 the capacity of each of the fire buckets referred to in this part shall be at least nine liters;
 - .3 fire buckets provided in compliance with this Regulation shall not be used for any other purpose than extinguishing fire;
 - .4 Where the provision of fixed fire extinguishing systems is considered to be impracticable, the Administration may accept alternate arrangements.

Regulation VII/13 - Acceptance of Substitutes

Where in this Chapter a type of appliance, apparatus, extinguishing medium or arrangement is specified, any other type of appliance may be allowed provided the Administration is satisfied that it is not less efficient.

CHAPTER VIII

FIRE SAFETY MEASURES

Regulation VIII/1 - General Application

- 1 This Chapter applies to ships and manned barges which are provided with machinery spaces of Category A¹⁵ to maintain its normal habitable and operational condition.
- 2 Ships and manned barges which are provided with machinery spaces other than machinery spaces of Category A shall comply with the provisions of this Chapter to the satisfaction of the Administration.

Regulation VIII/2 - Structural Fire Protection

- 1 The hull, superstructures, structural bulkheads, decks and deckhouses of ships shall be constructed of steel or other equivalent material.

¹⁵ Refer to Definition of terms (SOLAS, 1974, Part A-General, Reg 3, Item 19)

- 2 The bulkheads and decks separating the machinery spaces of category A from control stations, corridors, accommodations spaces, stairways, service spaces and cargo spaces shall be so constructed as to be capable of preventing the spread of fire to the unexposed side.
- 3 Interior stairways below the weather deck shall be of steel or other material having acceptable fire resisting properties.
- 4 Insulation materials in accommodation spaces, service spaces, control stations and machinery spaces except domestic refrigeration compartments, shall be non-combustible. Vapor barriers and adhesive used in conjunction with insulation, as well as insulation of pipe fittings, for cold service systems, need not be non-combustible materials, but they shall be kept to the minimum quantity practicable and their exposed surfaces shall have qualities of resistance to the propagation of flame to the satisfaction of Administration.
- 5 All exposed surfaces in corridors and stairway enclosures and surfaces including grounds in concealed or inaccessible spaces in accommodation spaces, service spaces and control stations shall have low flame-spread characteristics. Exposed surfaces of ceilings in accommodation spaces, service spaces and control stations shall have slow flame-spread characteristics.
- 6 Paints, varnishes and other finishes used on exposed interior surfaces shall not offer an undue fire hazard to the satisfaction of the Administration and shall not be capable of producing excessive quantities of smoke.
- 7 Primary deck coverings, if applied within accommodation spaces, service spaces and control stations, shall be of approved materials which will not readily ignite or give rise to toxic or explosive hazards at elevated temperatures. In existing ships, the Administration may, in lieu of applying the requirements fully, apply such requirements only to deck coverings within accommodation spaces on decks forming the crown of machinery spaces and cargo spaces.

Regulation VIII/3 - Means of Escape and Control of Ventilation

- 1 Means of escape shall be provided as follows:
 - .1 Stairways and ladders shall be so arranged as to provide means of escape to the lifeboat and liferaft embarkation deck from all passengers and crew spaces and from spaces in which the crew is normally employed, other than machinery spaces;

- .2 Two means of escape shall be provided from machinery spaces of category A which shall be as widely separated as possible. Vertical escapes shall be by means of steel ladders or other means acceptable to the Administration as suitable alternatives. Where the size of, such machinery space makes it impracticable, one of these means of escape may be dispensed with provided, that the exit is to the satisfaction of the Administration;
 - .3 From machinery spaces other than those in category A, escape routes shall be provided to the satisfaction of the Administration having regard to the nature and location of the spaces and whether persons are normally employed in such spaces;
 - .4 No dead-end¹⁶ corridors having a length of more than seven meters shall be accepted.
 - .5 The width and continuity of the means of escape shall be to the satisfaction of the Administration.
- 2 The following provisions shall apply to machinery spaces of category A and, where the Administration considers it desirable, to the other machinery spaces:
 - .1 Means of control shall be provided for opening and closure of skylights, opening and closure of windows in machinery space boundaries, closure of openings in funnels which normally allow exhaust ventilation, and closure of ventilator dampers;
 - .2 Means of control shall be provided for permitting the release of smoke;
 - .3 Means of control shall be provided for stopping forced and induced draught fans, fuel oil transfer pumps, fuel oil unit pumps and to similar fuel pumps;
 - .4 Controls required in paragraphs 2.10 and 2.11 of this Regulation shall be located outside the space concerned, where they may be cut off in the event of fire in the space they serve;
 - .5 The number of skylights, doors, ventilators for natural ventilation, openings in funnel to permit exhaust ventilation and other openings to machinery spaces shall be in accordance with requirements of Regulation V/8;

¹⁶ A dead-end corridor is a corridor or part of a corridor from which there is only one escape route.

- .6 Skylights shall not contain glass Bodys. However, skylights containing wire-reinforced glass or toughened safety glass Bodys may be permitted provided that they are fitted with external shutters of steel or other equivalent material permanently attached. Suitable arrangements shall be made to permit the release of smoke in the event of fire from the spaces to be protected;
- .7 Windows shall not be fitted in machinery space boundaries. This does not preclude the use of glass for windows in control rooms within the machinery space;
- .8 Doors fitted in machinery space boundaries shall as far as practicable be equivalent in resisting fire to the divisions forming such boundaries. If such doors are not weathertight or watertight the same shall be self-closing;
- .9 The arrangements of each ventilation system shall be entirely separated from each other such that fire in one space shall not readily spread to machinery spaces, galleys, cargo spaces, accommodation spaces and control stations;
- .10 Power ventilation of accommodation spaces, services spaces, cargo spaces, control stations and machinery spaces shall be capable of being stopped from an easily accessible position located outside the space being served. This position shall not be readily cut off in the event of fire in the space served. The means provided for stopping the power ventilation of machinery spaces shall be entirely separated from the means provided for stopping ventilation of other spaces;
- .11 The main inlets and outlets of all ventilation systems shall be capable of being closed from outside the spaces being ventilated.

Regulation VIII/4 - Ventilation of Tanks and Cofferdams

- 1 Subject to the provisions of Regulations VIII/11 and VIII/12, all tanks, cofferdams and other enclosed spaces, where dangerous vapors are liable to be trapped, shall be provided with effective means for ventilation and access to the satisfaction of the Administration having regard to the intended services.
- 2 In tankers and barges carrying flammable liquid cargo in bulk (other than crude oil or petroleum products of low flashpoint) there shall be provided for ventilation of cargo tanks a venting system consisting of one or more pressure/vacuum valves at the outlets to the

atmosphere or air pipes the open ends of which are fitted with removable wire gauze diaphragms of non-corrosive material. Such venting systems shall be to the satisfaction of the Administration.

Regulation VIII/5 - Miscellaneous Items

- 1 Where bulkheads, decks, ceilings or linings are penetrated for the passage of electric cables, pipes, trunks, etc., or for the fitting of ventilation terminals, lighting fixtures and similar devices, or for girders, beams or other structural members, arrangements shall be made to ensure that the fire integrity is not impaired.
- 2 The Administration may permit the conveying of oil and combustible liquid through accommodation and service spaces provided that the pipes conveying oil or combustible liquids are of a material approved by the Administration having regard to the fire risk.
- 3 Material readily rendered ineffective by heat shall not be used for overboard scuppers including sanitary discharges and other outlets which are close to the water-line and where the failure of the material in the event of fire would give rise to danger of flooding.
- 4 Electric radiators, if used, shall be fixed in position and so constructed as to reduce fire risks to a minimum. No such radiators shall be fitted with an element so exposed that clothing, curtains, or other similar materials can be scorched or set on fire by heat from the element or equivalent material.
- 5 Cellulose-nitrate based film shall not be used for cinematography installations.
- 6 Paint lockers with an area of more than 10 m² shall be provided with adequate measures to recognized standards to control fire in such spaces.
- 7 In spaces where penetration of oil products is possible, the surface of insulation shall be impervious to oil or oil vapor.

Regulation VIII/6-Arrangement for Oil Fuel and Other Oil Tanks

- 1 The following limitations shall apply to the use of oil as fuel:
 - .1 except as otherwise permitted by this Regulation, no oil fuel with a flash point of less than 60°C shall be used;
 - .2 in emergency generators oil fuel with a flashpoint of not less than 43°C may be used;

- .3 subject to such additional precautions as it may consider necessary and on condition that the ambient temperature of the space in which such oil fuel is stored or used shall not be allowed to rise to within 10 °C below the flashpoint of the oil fuel. The Administration may permit the general use of oil fuel having a flashpoint of less than 60°C but not less than 43°C;
 - .4 in cargo ships the use of fuel having a lower flashpoint than otherwise specified in this Regulation, for example crude oil, may be permitted provided that such fuel is not stored in any machinery space and subject to the approval by the Administration of the complete installation;
 - .5 the flashpoint of oils shall be determined by an approved closed cup method¹⁷.
- 2 In a ship in which oil fuel is used, the arrangements for the storage, distribution and utilization of the oil fuel shall be such as to ensure the safety of the ship and persons on board and shall at least comply with the following provisions:
- .1 as far as practicable, parts of the oil fuel systems containing heated oil under pressure exceeding 0.18 N/mm² shall not be placed in a concealed position such that defects and leakage cannot be readily observed. The machinery spaces on the way of such parts of the oil fuel system shall be adequately illuminated;
 - .2 as far as practicable, oil fuel tanks shall be part of the ship's structure and shall be located outside machinery spaces of category A. Where oil fuel tanks, other than double bottom tanks, are necessarily located adjacent to or within machinery spaces of category A, at least one of their vertical sides shall be contiguous to the machinery space boundaries, and shall preferably have a common boundary with the double bottom tanks where fitted, and the area of the tank boundary common with the machinery spaces shall be kept to a minimum.

Where such tanks are within the boundaries of machinery spaces of category A they shall not contain oil fuel having a flashpoint of less than 60°C. In general, the use of free standing oil fuel tanks shall be avoided. Where permitted, they shall be placed in an oil-tight spill tray of ample size having a suitable drain pipe leading to a safe place to the satisfaction of the Administration;
- .3 every oil fuel pipe, which, if damaged, would allow oil to escape from a storage, settling or daily service tank situated above the double bottom shall be fitted with a cock or valve directly on the tank capable of being closed from a safe position outside the space concerned in the event of a fire occurring in the space in which such tanks are situated. Tanks of not more than 250 liters capacity need not comply with this sub-paragraph;
 - .4 safe and efficient means of ascertaining the amount of oil fuel contained in any oil fuel tank shall be provided. Sounding pipes shall not terminate in any space where the risk of ignition of spillage from the sounding pipe might arise. In particular, they shall not terminate in accommodation spaces. Other means of ascertaining the amount of oil fuel contained in any fuel tank may be permitted, provided that the failure of such means or overfilling of the tanks will not permit release of fuel. The Administration may permit the use of oil level gauges with flat glasses and self-closing valves between the gauges and fuel tanks. Cylindrical gauge glasses may also be permitted in free standing oil fuel tanks provided that they are suitably protected and fitted with self-closing valves to the satisfaction of the Administration;
 - .5 provision shall be made to prevent over-pressure in any oil tank or in any part of the oil fuel system, including the filling pipes. Relief valves and air or over-flow pipes shall discharge to a position which in the opinion of the Administration is safe. The open ends of air pipes shall be fitted with wire gauze.
- 3 The arrangements for storage, distribution and utilization of oil used in pressure lubrication systems shall be such as to ensure the safety of the ship and persons on board. The arrangements made in machinery spaces of category A and whenever practicable in other machinery spaces, shall at least comply with the provisions of paragraphs 2.1, 2.3 to 2.5, as they apply to oil fuel arrangements, except that this does not preclude the use of sight-flow glasses in lubricating systems provided that they are shown by test to have a suitable degree of fire resistance.
 - 4 The arrangements for storage, distribution and utilization of other flammable oils employed under pressure in power transmission systems, control and activating systems and heating systems shall be such as to ensure the safety of ships and persons on board. In locations where means of ignition are present, such

¹⁷. Shall explain the definition of closed cup method

arrangements shall at least comply with the provisions of paragraphs 2.4 and 2.5 in respect of strength and construction.

Regulation VIII/7 - Spillage or Leakage of Oil

No oil fuel tank or lubricating oil tank or any other flammable oil tank shall be situated where spillage or leakage there from can constitute a hazard by falling on heated surfaces. Precautions shall be taken to prevent any oil that may escape under pressure or oil leakage from any pump, filter, piping system or heat exchanger from coming into contact with heated surfaces or enter into machinery air intakes. Where necessary, a suitable spill tray or gutter screen or other suitable arrangement shall be provided to allow oil to drain to a safe place in the event of spillage or leakage of oil from such an oil tank, machinery, equipment or system. The number of joints in piping systems shall be kept to a minimum practicable.

Regulation VIII/8 - Pipes and Fittings

Pipes, fittings and valves handling fuel oil, lubrication oil and other flammable oils shall be of steel or other approved material, except that restricted use of flexible pipes shall be permissible in positions where the Administration is satisfied that they are necessary. Such flexible pipes and end attachments shall be of approved fire-resisting materials of adequate strength and shall be constructed to the satisfaction of the Administration.

Regulation VIII/9 - Use of Forepeak Tanks for Carrying Oil

Oil fuel, lubrication oil and other liquid substances flammable or harmful to the marine environment shall not be carried in forepeak tanks.

Regulation VIII/10 - Carriage of Oxygen, Acetylene and Other Flammable Gases in Cylinders

- 1 Where more than one cylinder of oxygen and more than one cylinder of acetylene and other flammable gases in cylinders are carried simultaneously, permit shall be secured from the Administration. Such cylinders shall be arranged in accordance with the following:
 - .1 permanent piping systems for oxyacetylene-acetylene may be accepted provided that they are designed having due regard to standards and codes of practice to the satisfaction of the Administration;
 - .2 where two or more cylinders of each gas are intended to be carried in enclosed spaces, separate dedicated storage rooms shall be provided for each gas;
 - .3 storage rooms shall be constructed of steel, and be well ventilated and accessible from the open deck;

- .4 provision shall be made for the expeditious removal of cylinders from the storage rooms in the event of fire;
- .5 "NO SMOKING" signs shall be displayed at the gas cylinder storage rooms;
- .6 where cylinders are stowed in open locations means shall be provided to:
 - .1 protect cylinders and associated piping from physical damage;
 - .2 minimize exposure to hydrocarbons; and
 - .3 ensure suitable drainage;
- .7 in all cases, cylinders and associated piping shall be located at a safe distance away from the ship's sides to avoid leakage of gases due to damage to the cylinders in the case of an accident to the ship's side.

- 2 Fire-extinguishing arrangements for the protection of areas or spaces where such cylinders are stored shall be to the satisfaction of the Administration.

Regulation VIII/11 - Carriage of Dangerous Goods for Ship's Use

- 1 Stowage of explosives associated with ship's use shall be in accordance with the requirements for explosives storage specified in Chapter 7 of the Code of Safety For Special Purpose Ships (SPS Code) adopted by the Organization by Resolution A.534 (XIII), as amended.
- 2 Subject to the provisions of Regulation 11, paragraph 2, of the SPS Code, liquids which give off dangerous vapors and flammable gases, and cylinders containing flammable or other dangerous gases shall be stored in a well ventilated space or on deck and protected against sources of dangerous heat. All pipes and fittings associated with the gas cylinder shall be adequately protected against damage. Where storage rooms are necessary, separate storage rooms meeting the requirements of the International Maritime Dangerous Goods (IMDG) Code shall be provided.
- 3 Substances which are liable to spontaneous heating or combustion shall not be carried unless adequate precautions have been taken to prevent the outbreak of fire.
- 4 Radioactive substances shall not be carried unless adequate precaution has been taken to the satisfaction of the Administration.

**Regulation VIII/12 - Fire Protection
Arrangements in Cargo Spaces**

- 1 Where ships are engaged in the carriage of dangerous goods, a fixed gas fire-extinguishing system complying with the relevant regulations of SOLAS 74, as amended, or a fire-extinguishing system which, to the satisfaction of the Administration, gives equivalent protection for the cargoes carried shall be provided in the cargo spaces.
- 2 In addition to complying with the applicable requirements of paragraph 1, ships intended for the carriage of dangerous goods shall comply with the special requirements specified in Regulation 54 of Chapter 11-2 of SOLAS 74, as amended, except when carrying dangerous goods in limited quantities.¹⁸
- 3 The Administration shall provide the ship with an appropriate document as evidence of compliance with the requirements of these Rules and Regulations relating to construction and equipment.

Regulation VIII/13 - Fire Safety Measures for Tankers

- 1 The requirements of Regulations 55 to 63 of Chapter 11-2 of SOLAS 74, as amended, shall apply to all tankers and barges carrying crude oil and petroleum products having a flashpoint not exceeding 60°C, as determined by an approved flashpoint apparatus and Reid vapor pressure which is below atmospheric pressure and other liquid products having a similar fire hazard.
- 2 In lieu of complying with the requirements of paragraph 1, existing tankers shall comply with the requirements of the national regulation previously made applicable taking into account the safety of persons on board, property at sea and the marine environment,

Regulation VIII/14 - Carriage of Dangerous Goods in Ships and Barges

The dangerous goods classified under Regulation 2 of Chapter VII of SOLAS 74, as amended, shall comply with the requirements of Chapter VII of SOLAS 74, as amended, when such goods are carried in ships and barges in packaged form or in solid form in bulk as appropriate.

¹⁸. Reference to made to Section 18 of the General Introduction to the International Maritime Dangerous Goods Code (IMDG Code) for a definition of the term 'limited Quantities'.
•Refer to RPMMR Chapter X

CHAPTER IX

LIFE-SAVING APPLIANCES

Regulation IX/1 - Application

- 1 Unless expressly provided otherwise, this Chapter applies to new ships and new manned barges.
- 2 Life-saving appliances on existing ships shall be in compliance with recognized standards. Existing survival crafts and their launching appliances shall as far as practicable provide capacity for the ship's complement and passengers on each side.
- 3 Ships shall comply with the requirements of regulations relating to the following to the extent prescribed therein within two years of the coming into force of these Rules and Regulations:
 - .1 life jackets;
 - .2 lifebuoys;
 - .3 thermal protective aids, if applicable;
 - .4 radar transponders;
 - .5 liferafts and hydrostatic release units;
 - .6 muster and abandon ship drill training;
 - .7 locating equipment specified under GMDSS.

Regulation IX/2 - General Requirements

- 1 Life-saving requirements under this Chapter shall comply with the technical specifications of Chapter III of SOLAS 74, as amended. Where detailed specifications are not included, the life-saving appliances shall be to the satisfaction of the Administration.
- 2 The Administration may, if it considers that the sheltered nature and conditions of the voyage are such as to render the application of any specific requirements of this Chapter unreasonable or unnecessary, approve alternative specifications that are considered equally effective under the circumstances.

Regulation IX/3 - Approval of Life-Saving Appliances and Arrangements

- 1 Life-saving appliances and arrangements required by this Chapter shall be approved by the Administration. Before giving approval to life-saving appliances and arrangements, the Administration shall ensure that such life-

saving appliances and arrangements comply with the recommendations of the Organization.¹⁹

- 2 Where novel life-saving appliances or arrangements are to be approved, the Administration shall ensure that they provide the same safety standards as specified herein and that such appliances and arrangements are evaluated and tested in accordance with the recommendations of the Organization.²⁰

Regulation IX/4 – Communications

- 1 Each ship and manned barge shall carry:
 - .1 at least two two-way VHF radio-telephone apparatus;²¹

at least one radar transponder. Such radar transponder shall be so stowed that it can be rapidly placed in any survival craft;²²
 - .2 one satellite emergency position indicating radio beacon (EPIRB)²³;
 - .3 at least six rocket parachute flares on the bridge of the ship;
 - .4 an emergency means comprising either fixed or portable equipment or both for two-way communications between emergency control stations, muster and embarkation stations and strategic positions on board;
 - .5 a general emergency alarm system for summoning the crew to muster stations capable of sounding a signal consisting of seven or more short blasts followed by a long blast on the ship's whistle or siren which shall be powered from the ship's main or the emergency power. The system shall be operated from the ship's bridge and be audible throughout all the accommodation and normal crew spaces.
- 2 The satellites EPIRBs and the VHF EPIRBs referred to in paragraph 1 shall be:
 - .1 capable of transmitting a distress alert through the polar orbiting satellite service

¹⁹. Refer to the Recommendation on Testing of Life-Saving Appliances, adopted by the Organization by Resolution A.689(17).

²⁰. Refer to the Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-saving Appliances and Arrangements, adopted by the Organization by Resolution A.520(13).

²¹. Refer to the Recommendation of Performance Standards for Survival Craft Portable Two-Way VHF Radiotelephone Apparatus, adopted by the Organization by Resolution A.762(18).

²². Refer to the Recommendations on Performance Standards for Survival Craft Radar Transponders for Use in Search and Rescue Operations, adopted by the Organization by Resolution A.697(17).

²³. Refer to Resolution A.615(15) concerning search and rescue homing capability, adopted by the Organization.

operating in the 406 MHz band or through the INMARSAT geostationary satellite service operating in the 1.6 GHz band.²⁴

- .2 installed in an easily accessible position;
- .3 ready to be manually released and capable of being carried by one person into a survival craft;
- .4 capable of floating free and if the ship sinks, of being automatically activated when afloat; and
- .5 capable of being activated manually.

Regulation IX/5 - Personal Life-Saving Appliances

- 1 Each ship and manned barge shall carry at least four lifebuoys of which at least:
 - .1 one such buoy shall be provided with a self-igniting light;
 - .2 one such buoy shall be fitted with a buoyant lifeline;
 - .3 two such buoys shall be fitted with self-activating smoke signals and be capable of quick release from the navigating bridge;
 - .4 lifebuoys with light and those with light and smoke signals shall be equally distributed on both sides of the ship.
- 2 Each ship and manned barge shall carry life jackets accessible for every person on board. In addition, they shall carry a sufficient number of life jackets for persons on watch. Every such lifejacket shall be provided with a light complying with the requirements of Regulation III/32.3 of SOLAS 74, as amended.
- 3 Each ship and manned barge provided with survival crafts without enclosures shall carry at least two thermal protective aids in every such craft.

Regulation IX/6 - Manning and Survival Procedures

- 1 All persons manning such ships and barges shall be trained in launching and operating the survival crafts.²⁵
- 2 Illustrations and instructions relating to the use of life-saving appliances in appropriate languages shall be posted at muster stations and other crew spaces.

²⁴. Subject to the availability of appropriate receiving and processing ground facilities for each ocean region covered by INMARSAT satellites.

²⁵. Refer to Res. A.(657)16 concerning Instructions for action in survival craft

- 3 Posters or signs shall be provided on or in the vicinity of survival craft and their launching controls.²⁶
- 4 Muster stations shall be provided close to the embarkation stations. Both shall be adequately illuminated by lighting supplied from the emergency source of electric power.
- 5 Each member of the crew shall participate in at least one abandon ship drill and one fire drill every month. On board training in the use of life-saving appliances, including survival craft equipment shall be provided at such drills.
- 6 Records shall be maintained relating to abandon ship drills, fire drills and on board training, in such-log-books as may be prescribed by the Administration.

Regulation IX/7 - Survival Craft

- 1 Ships other than oil tankers, chemical tankers and gas carriers, and manned barges shall comply with the following:
 - .1 They shall carry-on each side of the ship one or more survival craft, complying with the requirements of the Code²⁷ and of such aggregate capacity as will accommodate the total number of persons on board.
 - .2 Unless the survival crafts required by paragraph 1.1 are stowed in a position providing for easy side-to-side transfer at a single open deck level, additional survival crafts shall be provided so that the total capacity available on each side will accommodate 150 percent of the total number of persons on board.
- 2 Every oil tanker carrying crude oil or petroleum products of low flashpoint, chemical tankers and gas carriers, shall in addition to complying with the requirements of paragraph 1 as appropriate, carry at least one rigid rescue boat unless:
 - .1 all the required survival crafts are lifeboats; or
 - .2 at least one of the required survival craft is a lifeboat complying with the requirements for a rescue boat.
- 3 The equipment to be provided in the survival craft shall be to the satisfaction of the Administration and shall take into account:
 - .1 the area of operations;
 - .2 distance from the nearest port of refuge;

- .3 search and rescue services available in the area.

Regulation IX/8 - Stowage, Launching and Recovery of Survival Crafts

- 1 Survival craft shall be stowed:
 - .1 so that neither the survival craft nor its stowage arrangements will interfere with the operation of any other survival craft or rescue boat at any other launching station;
 - .2 as near the water surface as is safe and practicable but not less than 2 m above the waterline with the ship in the fully loaded condition under unfavorable condition of trim and listed up to 20° either way;
 - .3 so that the life boats and the rescue boats can easily be launched from the ship. Recovery arrangements for rescue boats shall be to the satisfaction of the Administration;
 - .4 in a state of continuous readiness so that two crew members can carry out preparations for embarkation and launching in less than five minutes;
 - .5 liferafts intended for throw-overboard launching shall be so stowed as to be readily transferable for launching on either side of the ship unless liferafts are provided in accordance with Regulation IX/7 paragraph 1.2.
- 2 Where the liferafts are not provided with launching appliances, they shall be stowed with its painter permanently attached to the ship with a float-free arrangement complying with *Has* recognized standards.

Regulation IX/9 - Marking of Survival Craft

All survival craft shall be marked in block capitals of the Roman alphabet with the:

- .1 name and port of registry of the ship;
- .2 name of approving authority;
- .3 number of persons it is permitted to accommodate.

Regulation IX/10 - Operational Readiness, Maintenance and Inspections

- 1 Before the Ship leaves port and at all times during the voyage and in the case of barges at all times when the barge is operational and manned, all life-saving appliances shall be in working order and ready for immediate use.
- 2 Instructions for on board maintenance of life-saving appliances shall be easily understood and illustrated where possible.

²⁶ Refer to Res.A760(18) concerning symbols relating to life-saving appliances

²⁷ Refer to Res. MSC.[]66 International Life-saving Appliances (LSA) Code.

- 3 The following tests and inspections shall be carried out weekly:
 - .1 all survival craft, rescue boats and launching appliances shall be visually inspected to ensure that they are ready for use;
 - .2 the general emergency alarm system shall be tested.
- 4 Inspection of the life-saving appliances, including lifeboat equipment, shall be carried out monthly using a checklist to ensure that such equipment is complete and in good order. A report of the inspection shall be entered in the log-book.
- 5 Every inflatable liferaft, inflated rescue boats and radar transponders shall be serviced at intervals of not more than 12 months and at an approved servicing station to the satisfaction of the Administration. However, in cases where it appears proper and reasonable, the Administration may extend this period to 17 months.
- 6 Hydrostatics release units shall be serviced at intervals not exceeding 18 months at an approved servicing station.

CHAPTER X

RADIO COMMUNICATIONS

Regulation X/1 - General

- 1 By 1 February 1999, ships and manned barges above 300 gt shall comply with the requirements of this Chapter.
- 2 Existing and new ships below 300 gt are exempted from the above paragraph, and may otherwise use the installations as prescribed by the telecommunications authority.
- 3 No provision in this Chapter shall prevent the use by any ship, survival craft or person in distress, of any means at their disposal to attract attention, make known their position and obtain help.
- 4 Manned barges when in attendance by a tug or an offshore supply ship may comply only with the requirements approved by the Administration taking into account the communications available between the two ships. In any case, the requirements relating to EPIRBs, radar transponder, beacons and the VHF communication system as specified herein shall be complied with.

Regulation X/2 - Functional Requirements

- 1 Each ship and manned barge covered in Regulation X/1, paragraphs 1 and 3, while at sea shall be provided with radio installations capable of complying with the functional requirements identified in this Regulation throughout its intended voyage for the sea area or areas through which it will pass during the intended voyage.
- 2 Each ship, while at sea, shall be capable of:
 - .1 transmitting ship-to-shore distress alerts by at least two separate and independent means, each using a different radiocommunication service;
 - .2 receiving shore-to-ship distress alerts;
 - .3 transmitting and receiving ship-to-ship distress alerts;
 - .4 transmitting and receiving search and rescue coordinating communications;
 - .5 transmitting and receiving on-scene communications;
 - .6 transmitting and where applicable receiving signals for locating;²⁸
 - .7 transmitting and receiving²⁹ maritime safety information;
 - .8 transmitting and receiving general radiocommunications to and from shore-based radio systems or networks; and
 - .9 transmitting and receiving bridge-to-bridge communications.

Regulation X/3 - Ship Requirements

- 1 Every radio installation shall be:
 - .1 so located that no harmful interference of mechanical, electrical or other origin affects its proper use;
 - .2 so located as to ensure the greatest possible degree of safety and operational availability;
 - .3 be protected against harmful effects of adverse environmental conditions;
 - .4 provided with reliable permanently arranged electrical lighting for adequate illumination; and

²⁸ Refer to Res. A.614(15) concerning carriage of radar operating in the frequency band 9,300-9,500 Mhz, adopted by the Organization.

²⁹ Arrangements to receive the maritime safety information in ports need to be provided.

- .5 clearly marked with the call sign, the ship station identity and other qualified codes.
- 2 Control of the VHF radiotelephone channels required for navigational safety shall be available on the navigation bridge.

Regulation X/4 – Watches

- 1 Each ship, while at sea, shall maintain continuous distress and safety watch on the, appropriate distress frequencies identified for the relevant sea area.
- 2 Each ship, while at sea, shall maintain a radio watch for broadcasts of maritime safety information on the appropriate frequency or frequencies on which such information is broadcast for the area in which the ship is navigating.
- 3 Until 1 February 1999 each ship, while at sea, shall maintain a continuous listening watch on:
 - .1 VHF channel 16;
 - .2 radiotelephone distress frequency 2,182KHz.

Regulation X/5 - Maintenance Requirements

- 1 The Administration shall ensure that the radio equipment required by this Chapter is maintained to provide the availability of the functional requirements and to meet the recommended performance standards for such equipment.
- 2 Adequate information shall be provided to enable the equipment to be properly operated and maintained, taking⁷ into account the recommendations of the Organization.³⁰

Regulation X/6 - Radio Equipment – General

- 1 Each ship shall be provided with:
 - .1 a VHP installation capable of transmitting and receiving:
 - .1 Digital selective calling (DSC) on the frequency 156.525 MHz (channel 70) and maintaining a continuous DSC watch on VHF channel 70. It shall be possible to initiate the transmission of distress alerts on channel 70 from the position from which the ship is normally navigated. Ships plying exclusively in sea area A2 need not comply with this requirement if they maintain a continuous listening watch on VHF channel 16 from the navigating bridge;

³⁰ Refer to the Recommendation on General Requirements for Shipborne Radio Equipment Forming Part of the Global Maritime Distress and Safety System and for Electronic Navigational Aids, adopted by the Organization by Res. 1.694(17).

- .2 radiotelephony on frequencies 156.300 MHz (channel 6), 156.650 MHz (channel 13) and 156.800 MHz (channel 16);
- .2 a receiver capable of receiving international NAVTEX³¹ service broadcasts if the ship is engaged on voyages in any area in which an international NAVTEX service is provided;
- .3 where NAVTEX service is not provided, a radio facility for reception of:
 - .1 maritime safety information service by the INMARSAT enhanced group calling system; or
 - .2 the HF direct-printing telegraphy maritime safety information service.

- 2 Where Ships regularly ply on voyages of less than 24 hours the Administration may exempt such ship from these requirements provided arrangements to receive NAVTEX messages and weather broadcasts are made available prior to sailing.
- 3 Subject to the provisions of Regulation X/7 paragraph 3, a satellite emergency position-indicating radio beacon (satellite EPIRB)³² which should be:
 - .1 capable of transmitting a distress alert either through the polar orbiting satellite service operating in the 406 MHz band or, if the craft is engaged only on voyages within INMARSAT coverage, through the INMARSAT geostationary satellite service operating in the 1.6 GHz band³³;
 - .2 installed in an easily accessible position;
 - .3 ready to be manually released and capable of being carried by one person into a survival craft;
 - .4 capable of floating free if the craft sinks and of being automatically activated when afloat; and
 - .5 capable of being activated manually.

Regulation X/7 - Radio Equipment: Sea Area A1

- 1 In addition to meeting the requirements of Regulation X/6, each ship engaged on voyages exclusively in sea area A1 should be provided with a radio installation capable of initiating

³¹ This is a means of sending important maritime safety information (MSI) such as navigational and meteorological warnings and urgent messages, which is automatically received by the ship in printed form.

³² Refer to resolution A.616(15) concerning search and rescue homing capability, adopted by the Organization.

³³ Subject to the availability of appropriate receiving and processing ground facilities for each ocean region covered by INMARSAT satellites.

the transmission of ship-to-shore distress alerts from the position from which the ship is normally navigated, operating either:

- .1 on VHF using DSC; this requirement may be fulfilled by the EPIRB prescribed by paragraph 3, either by installing the EPIRB close to, or by remote activation from, the position from which the ship is normally navigated; or
 - .2 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by Regulation X/6 paragraph 3, either by installing the satellite EPIRB close to, or by remote activation from the position from which the ship is normally navigated; or
 - .3 if the ship on voyages within the coverage of MF coast stations equipped with DSC, or MF using DSC; or
 - .4 on HF using DSC; or
 - .5 through the INMARSAT geostationary satellite service; this requirement may be fulfilled by:
 - .1 an INMARSAT ship earth station³⁴; or
 - .2 the satellite EPIRB, required by Regulation X/6 paragraph 3, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated.
- 2 The VHP radio installation, required by Regulation X/6 paragraph 1.1, should also be capable of transmitting and receiving general communications using radiotelephony.
- 3 Ship engaged on voyages exclusively in sea area A1 may carry, in lieu of the satellite EPIRB required by Regulation X/6 paragraph 3, and EPIRB which should be:
- .1 capable of transmitting a distress alert using DSC on VHP channel 70 providing for locating by means of a radar transponder operating in the 9 GHz band;
 - .2 installed in an easily accessible position;
 - .3 ready to be manually released and capable of being carried by one person into a survival craft;

³⁴ This requirement can be met by INMARSAT ship earth stations capable of two-way communications, such as Standard-A and B (resolution A.698(17)) or Standard-C (resolution A.663(16)) ship earth stations. Unless otherwise specified, this footnote applies to all requirements for an INMARSAT ship earth station prescribed by this Chapter.

- .4 capable of floating free if the craft sinks and of being automatically activated when afloat; and
- .5 capable of being activated manually.

Regulation X/8 - Radio Equipment: Sea Areas A1 and A2

- 1 In addition to meeting the requirements of Regulation X/6, every ship engaged on voyages beyond sea area A1, but remaining within sea area A2, should be provided with:
 - .1 an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies:
 - .1 2,187.5 KHz using DSC; and
 - .2 2,182 KHz using radiotelephony;
 - .2 a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 KHz which may be separate from, or combined, that required by paragraph 1.1.1; and
 - .3 means of initiating the transmission of ship-to-shore distress alerts by a radio service other than MF operating either:
 - .1 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by Regulation X/6 paragraph 3, either by installing the satellite EPIRB close to, or by remote activation from the position from which the ship is normally navigated; or
 - .2 on HF using DSC; or
 - .3 through the INMARSAT geostationary satellite service; this requirement may be fulfilled by:
 - .1 the equipment specified in paragraph 3.2; or
 - .2 the satellite EPIRB, required by Regulation X/6 paragraph 3, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated.
- 2 It should be possible to initiate transmission of distress alerts by the radio installations specified in paragraphs 1.1 and 1.3 from the position from which the ship is normally navigated.
- 3 The ship should, in addition, be capable of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy by either:

- .1 a radio installation operating on working frequencies in the bands between 1,605 KHz and 4,000 KHz or between 4,000 KHz and 27,500 KHz. This requirement may be fulfilled by the addition of this capability in the equipment required by, paragraph 1.1; or
 - .2 an INMARSAT ship earth station.
- 4 The Administration may exempt ships constructed before 1 February 1997, which are engaged exclusively on voyages within the sea area A2, from the requirements of Regulation X/6 paragraphs 1.1 and 1.2 provided such ships maintain, when practicable, a continuous listening watch on VHP channel 16. This watch should be kept at the position from which the craft is normally navigated. Such exemption should be endorsed by the base port State in the Permit to Operate.

Regulation X/9 - Radio Equipment: Sea Areas A1, A2 and A3

- 1 In addition to meeting the requirements of Regulation X/6, every ship engaged on voyages beyond sea area A1 and A2, but remaining within sea area A3, should, if it does not comply with the requirements of paragraph 2, be provided with:
 - .1 an INMARSAT ship earth station capable of:
 - .1 transmitting and receiving distress and safety communications using direct-printing telegraphy;
 - .2 initiating and receiving distress priority calls;
 - .3 maintaining watch for shore-to-ship distress alerts, including those directed to specifically defined geographical areas;
 - .4 transmitting and receiving general radiocommunications, using either radiotelephony or direct-printing telegraphy; and
 - .2 an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies:
 - .1 2,187.5 KHz using DSC; and
 - .2 2,182 KHz using radiotelephony;
 - .3 a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 KHz which may be separate from, or combined, that required by paragraph 1.2.1; and
- 2 In addition to meeting the requirements of Regulation X/6, every ship engaged on voyages beyond sea areas A1 and A2, but remaining within sea area A3, should, if it does not comply with the requirements of paragraph 1, be provided with:
 - .1 an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on all distress and safety frequencies in the bands between 1,605 KHz and 4,000 KHz or between 4,000 KHz and 27,500 KHz:
 - .1 using DSC;
 - .2 using radiotelephony; and
 - .3 using direct-printing telegraphy; and
 - .2 equipment capable of maintaining DSC watch on 2,187.5 KHz, 8,414.5 KHz and on at least one of the distress and safety DSC frequencies 4,207.5 KHz, 6,312 KHz, 12,577 KHz or 16,804.5 KHz; at any time, it should be possible to select any of these DSC distress and safety frequencies. This equipment may be separate from, or combined with, the equipment required by paragraph 2.1; and
 - .3 means of initiating the transmission of ship-to-shore distress alerts by a radiocommunication service other than HF operating either:
 - .1 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by Regulation X/6 paragraph 3, either by installing the satellite EPIRB close to, or by remote activation from the position from which the ship is normally navigated;
 - .2 on HF using DSC; or
 - .3 through the INMARSAT geostationary satellite service, by an additional ship earth station or by the satellite EPIRB required by Regulation X/6 paragraph 3, either by installing the satellite EPIRB close to, or by remote activation from the position from which the craft is normally navigated;

which the ship is normally navigated;
or

.2 through the INMARSAT geostationary satellite service; this requirement may be fulfilled by:

.3 an INMARSAT ship earth station; or

.4 the satellite EPIRB, required by Regulation X/6 paragraph 3, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated.

.4 in addition, the ship should be capable of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy by an MF/HF radio installation operating on working frequencies in the bands between 1.605 KHz and 4.000 KHz and between 4,000 KHz and 27,500 KHz. This requirement may be fulfilled by the addition of this capability in the equipment required by paragraph 2.1.

3 It should be possible to initiate transmission of distress alerts by the radio installations specified in paragraphs 1.1', 1.2, 1.4, 2.1 and 2.3 from the position from which the ship is normally navigated.

4 The Administration, in conjunction with the base port State, may exempt ships constructed before 1 February 1997 and engaged exclusively on voyages within sea areas A2 and A3, from the requirements of Regulation X/6 paragraph I.I.I and 1.2, provided such ships maintain, when practicable, a continuous listening watch on VHP channel 16. This watch should be kept at the position from which the craft is normally navigated.

**Regulation X/10 - Radio Equipment: sea areas
A1, A2, A3 and A4**

1 In addition to meeting the requirements of Regulation X/6, ship engaged on voyages in all areas be provided with the radio installations and equipment required by Regulation X/9 paragraph 2, except that the equipment required by Regulation X/9 paragraph 2.3.2 should not be accepted as an alternative to that required by Regulation X/9 paragraph 2.3.1, which should always be provided. In addition, ship engaged on voyages in all areas should comply with the requirements of Regulation X/9 paragraph 3.

2 The Administration, in conjunction with the base port State, may exempt ships constructed before 1 February 1997 and engaged exclusively on voyages within sea areas A2,

A3 and A4, from the requirements of Regulation X/6 paragraph 1.1,1 and 1.2, provided such ships maintain, when practicable, a continuous listening watch on VHP channel 16. This watch should be kept at the position from which the craft is normally navigated.

Regulation X/11 - Sources of Energy

There shall be available at all times, while the ship is at sea, a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source or sources of energy for the radio installations for a period of 18 hours as specified in Regulation VT/4 paragraph 4 of these Rules and Regulations.

Regulation X/12 - Radio logs

1 A radio log shall be maintained in accordance with the Radio Regulations in a ship which is fitted with a GMDSS radiocommunication station. Every qualified operator, master, officer or crew member maintaining a listening watch in accordance with Regulation X/4 shall enter in the log his name and the details of all incidents connected with the radio service which occur during his watch which may appear to be of importance to safety of life at sea. In addition, there shall be entered in the log:

.1 the details required by the Radio Regulations;

.2 the time listening watch begins when the ship leaves port, and the time at which it ends when the ship reaches port;

.3 the time at which listening watch was discontinued for any reason together with the reason thereof, and the time at which listening watch was resumed thereafter; and

.4 details of the maintenance of the batteries (if provided), including a record of the charging required.

2 Radio logs shall be available for inspection by the officers authorized by the Administration to make such inspection.

CHAPTER XI

SAFETY OF NAVIGATION

Regulation XI/1 – General

This Chapter applies to ships including those towed or pushed by a tug or other such ship. Wooden ships when propelled by mechanical

means shall as far as practicable comply with the regulations relating to the prevention of collisions (COLREG) and the routeing measures adopted by the Organization.

Regulation XI/2 - Danger Messages

- 1 The master of each ship which meets with dangerous derelict, or any other direct danger to navigation, or a tropical storm (signal no. 2 and above) or winds of force 10 or above on the Beaufort scale shall communicate such information by all the means at his disposal to ships in the vicinity and to the competent authorities at the first point on the coast with which he can communicate.
- 2 All radio messages issued under this Regulation shall be preceded by the safety signal, using the procedure as prescribed by the Radio Regulations.
- 3 The information to be transmitted shall be as complete as practicable and may be sent in plain language preferably in English.

Regulation XI/3 - Routeing

Ships shall comply with the traffic separation schemes or routeing requirements applicable to the area including avoidance of passage through areas designated as areas to be avoided by Ships or certain classes of ships³⁵.

Regulation XI/4 - Misuse of Distress Signals

The use of any distress signal, except for the purpose of indicating that a ship, aircraft or person is in distress, and the use of any signal which may be confused with any international distress signal, are prohibited.

Regulation XI/5 - Distress Messages: Obligations and Procedures

- 1 The master of a ship at sea, on receiving a signal from any source that a ship or aircraft or survival craft thereof is in distress, is bound to proceed with all speed to the assistance of the persons in distress informing them if possible that he is doing so. If he is unable or, in the special circumstances of the case, considers it unreasonable or unnecessary to proceed to their assistance, he must enter in the log-book the reason for failing to proceed to the assistance of the persons in distress.
- 2 The master of such ship shall be released from the obligation imposed by paragraph 1 if he is informed by the persons in distress or by the master of another ship which has reached such persons that assistance is no longer necessary.

If the Master of a ship receives such release, this has to be documented by him from the duty to render assistance.

3. A ship which receives any kind of distress message, shall simultaneously report this immediately to the nearest Coast Guard, Ports Authority or Coastal Radio Station under providing all relevant data to introduce immediate life saving actions.

Regulation XI/6 - Signaling Lamps

Requirements of Regulation V/11 of SOLAS 74, as amended, relating to the provision of an efficient daylight signaling lamp not solely dependent upon the ship's main source of electrical power are applicable to ships of over 150 gt. The Administration may extend this requirement to all ships to which these Rules and Regulations apply.

Regulation XI/7 - Shipborne Navigational Equipment

- 1 Ships shall be fitted with:
 - .1 standard magnetic compass, except as provided in paragraph 4;
 - .2 steering magnetic compass, unless heading information provided by the standard compass required under subparagraph 1.1 is made available and is clearly readable by the helmsman at the main steering position;
 - .3 adequate means of communication between the standard compass position and the normal navigation control position to the satisfaction of the Administration;
 - .4 means of taking bearings as nearly as practicable over an arc of the horizon of 360°-
- 2 Each magnetic compass referred to in subparagraph 1.1 shall be properly adjusted and its table of curve of residual deviations shall be available at all times.
- 3 A spare magnetic compass, interchangeable with the standard compass, shall be carried, unless the steering compass mentioned in subparagraph 1.2 or a gyro-compass is fitted.
- 4 The Administration, if it considers it unreasonable or unnecessary to require a standard magnetic compass, may exempt individual ship or classes of ships from these requirements if the nature of the voyage, the ship's proximity to land or the type of ship does not warrant a standard compass. A suitable steering compass shall in all cases be carried with means for taking bearings according to the recognized standards.

³⁵ Refer to the latest edition of Ship's Routeing published by the Organization

5 From 1 February 1999, ships of 300 gt and above shall be fitted with a RADAR installation capable of operating in the 9 GHz frequency band. A ship may be exempted from compliance with the requirements of paragraph 6 at the discretion of the Administration, provided that the equipment is fully compatible, with the radar transponder for search and rescue.

6 All equipment fitted in compliance with this Regulation shall be of type- approved by the Administration. Equipment installed on board ships on or after 1 February 1999 shall conform to appropriate performance standards not inferior to those adopted by the Organization. Equipment fitted prior to the adoption of related performance standards may be exempted from full compliance with those standards at the discretion of the Administration having due regard to the recommended criteria which the Organization might adopt in connection with the standards concerned⁶

Regulation XI/8 -Nautical Publications

All ships shall carry adequate and up-to-date charts, sailing directions, lists of lights, notices to mariners, tide tables and all other nautical publications necessary for the intended voyage.

Regulation XI/9 - International Code of Signals

Ships required to carry radio installations shall carry the International Code of Signals. This publication may also be carried by any other ship, which, in the opinion of the Administration, has a need to use it.³⁷

Regulation XI/10 - Life-Saving Signals

Life-saving signals shall be used by ships when communicating with ships or persons in distress or when communicating with life-saving stations, maritime rescue units and aircraft engaged in search and rescue operations. An illustrated table describing the life-saving signals shall be readily available to the officer of the watch of every ship.³⁸

³⁶ Refer to the following resolutions:

- a. A.694(17) concerning general requirements for shipborne radio equipment forming part of the GMDSS and for electronic navigational aids;
- b. A.382(X) concerning performance standards for magnetic compasses;
- c. A.4779(XII) concerning performance of radar equipment.

³⁷ Refer to the International Code of Signals as adopted by the Organization.

³⁸ As illustrated in the International Code of Signals

CHAPTER XII

SAFETY OF SPECIAL PURPOSE SHIPS

Regulation XII/1 - Application

- 1 This Chapter applies to special purpose ships.
- 2 Subject to the provisions of paragraphs 3 to 6 of this Regulation and the applicable requirements specified in Chapter X of these Rules and Regulations relating to radio communications, special purpose ships shall comply with the applicable requirements of the Code of Safety for Special Purpose Ships (SPS Code), adopted by the Organization, as amended. Whenever in the SPS Code the number of special personnel appears as a parameter, it shall include the number of passengers carried on board which shall not exceed 12.
- 3 The definitions of the terms in Chapter 1 of the SPS Code shall be superseded by the meanings of the same terms which are also defined in Chapter I of these Rules and Regulations. The definitions of all other terms which are defined in the SPS Code shall remain unchanged.
- 4 Subject to the provisions of paragraph 3, the provisions of Chapter I of the SPS Code shall be superseded by the relevant provisions of Chapter I of these Rules and Regulations.
- 5 The Administration may, either absolutely or subject to such conditions as it thinks fit, exempt any special purpose ship from the provision of Chapters 2 to 9 of the SPS Code if it is satisfied that compliance with that provision is either impracticable or unreasonable in view of the distance of the ship's area of operation from its base port, the type of special purpose of the ship, the weather conditions, the conditions and the absence of general navigational hazards, provided that it complies with such other requirements which, to the satisfaction of the Administration, are adequate for the service for which it is intended.
- 6 For the purpose of paragraph 5, special purpose ships engaged on voyages which do not extend beyond 20 nautical miles from the nearest land may, in lieu of complying with the requirements of the SPS Code, comply with the relevant requirements of these Rules and Regulations for ships other than tankers.

CHAPTER XIII

ASSIGNMENT OF LOAD LINES

Regulation XIII/1 - General

- 1 This Chapter adopts the International Convention on Load Lines, 1966 for ships more than 24 m in length.
- 2 Ships and barges between 15 m and 24 m in length, to which this Chapter applies, shall not proceed to sea unless surveyed, marked and certified in accordance with the provisions of these Rules and Regulations.
- 3 Nothing in this Chapter shall prevent the Administration from assigning a freeboard greater than the minimum freeboard determined in accordance with Chapter XIV of these Rules and Regulations.

Regulation XIII/2 - Submersion

- 1 Except as provided in paragraphs 2 and 3 of this Regulation, the appropriate loadlines on the sides of the ship corresponding to the season of the year and the zone or area in which the ship may be, shall not be submerged at any time when the ship is put to sea, during the voyage or on arrival.
- 2 When a ship is in fresh water of unit density, the appropriate loadline may be submerged by the amount of fresh water allowance shown on the appropriate certificate issued under the provision of these Rules and Regulations. Where the density is other than unity, an allowance shall be made proportional to the difference between 1.025 and the actual density.
- 3 When a ship departs from a port situated on a river or inland waters, deeper loading shall be permitted corresponding to the weight of fuel and all other materials required for consumption between the point of departure and the sea.

Regulation XIII/3 - Survey and Certification

Survey and certification, as regards the enforcement of the provisions of these Rules and Regulations specified in Chapters II and XIV relating to assignment of loadlines and the granting of exemptions therefrom, shall be in accordance to the provisions of Chapter I of these Rules and Regulations.

Regulation XIII/4 - Strength of the Ship

The general structural strength of the ship shall be sufficient for the draught corresponding to the freeboard assigned to the satisfaction of the Administration. Ships built and maintained in conformity with the requirements of a

classification society recognized by the Administration, may be considered to possess adequate strength.

Regulation XIII/5 - Assumptions

This Chapter assumes that the nature and stowage of the cargo, ballast, etc. are such as to; secure sufficient stability of the ship and the avoidance of excessive structural stress and that applicable international requirements relating to stability or subdivision, are complied with.

Regulation XIII/6 - Deck Line

The deck line is a horizontal line 300 mm in length and 25 mm in breadth. It shall be marked amidships on each side of the ship, and its upper edge shall normally pass through the point where the continuation outwards of the upper surface of the freeboard deck intersects the outer surface of the shell, provided that the deck line may be placed with reference to another fixed point on the ship on condition that the freeboard is correspondingly corrected. The location of the reference point and the identification of the freeboard deck shall in all cases be indicated on the Certificate issued in compliance with these Rules and Regulations.

Regulation XIII/7 - Load Line Marks

- 1 The load line mark shall consist of a ring 300 mm in outside diameter and 25 mm wide which is intersected by a horizontal line 450 mm in length and 25 mm in breadth, the upper edge of which passes through the center of the ring. The center of the ring shall be placed amidships and at a distance equal to the assigned summer freeboard measured vertically below the upper edge of the deck line.
- 2 The lines which indicate the load line assigned in accordance with these Rules and Regulations shall be horizontal lines 230 mm in length and 25 mm in breadth which extend forward of, unless expressly provided otherwise, and at right angles to, a vertical line 25 mm in breadth marked at a distance 540 mm forward of the center of the ring.

Regulation XIII/8 - Marks of Assigning Authority

The mark of the authority³⁹ by whom the load lines are assigned may be indicated alongside the load line ring above the horizontal line which passes through the center of the ring, or above and below it. This mark shall consist of not more than four initials to identify the authority's name, each measuring approximately 115 mm in height and 75 mm in width.

³⁹ Authority means the recognized organization by the Administration.

Regulation XIII/9 - Details of Marking

The ring, lines and letters shall be painted in white or yellow on a dark ground or in black on a light ground. They shall also be permanently marked on the sides of the ships to the satisfaction of the Administration. The marks shall be plainly visible and, if necessary, special arrangements shall be made for this purpose.

Regulation XIII/10 - Verification of Marks

The Ship Safety Certificate shall not be delivered to the ship until the officer or surveyor acting under the provisions of Regulation II/1 has certified that the marks are correctly and permanently indicated on the ship's sides.

Regulation XIII/11 - Information to be Supplied to the Master

- 1 The master of each new ship which is not already provided with stability information according to Regulation IV/1 paragraph 2, shall be supplied with sufficient information, in an approved form, to enable him to arrange for the loading and ballasting of his ship in such a way as to avoid the creation of any unacceptable stresses in the ship's structure, provided that this requirement need not apply to any particular length, design or class of ship where the Administration considers it to be unnecessary.
- 2 Stability information approved by the Administration shall be supplied to ships to enable the master to assess with ease and certainty the stability of the ship under various operating conditions⁴⁰. Such information shall include specific instructions to the master warning him of those operating conditions which could adversely affect either stability or the trim of the ship. In particular, the information recommended in the Code shall be included as appropriate. A copy of the stability information shall be submitted to the Administration.
- 3 The approved stability information shall be kept on board, readily accessible at all times and inspected at the periodical surveys of the ship to ensure that it has been approved.

Regulation XIII/12 - Superstructure End Bulkheads

Bulkheads at exposed ends of the enclosed superstructures shall be of substantial construction and shall be to the satisfaction of the Administration.

Regulation XIII/13 - Doors

- 1 All access openings in bulkheads at ends of enclosed superstructures shall be fitted with doors of steel or other equivalent material, permanently and strongly attached to bulkhead, and framed, stiffened and fitted so that the whole structure is of equivalent strength to the unpierced bulkhead and weathertight when closed. The means for securing these doors weathertight shall consist of gaskets and clamping devices or equivalent means and shall be permanently attached to the bulkheads or to the doors themselves. The doors shall be so arranged that they can be operated from both sides of the bulkhead.
- 2 Except as otherwise provided in this Chapter, the height of the sill of access openings in bulkheads at ends of enclosed superstructures shall be at least 300 mm above the deck.

Regulation XIII/14 - Position of Hatchways, Doorways and Ventilators

For the purpose of this Chapter, two positions of hatchways, doorways and ventilators are defined as follows:

- 1 Position 1 - Upon exposed freeboard and raised quarter decks, and upon exposed superstructure decks situated forward of a point located a quarter of the ship's length from the forward perpendicular.
- 2 Position 2 - Upon exposed superstructure decks situated abaft a quarter of the ship's length from the forward perpendicular.

Regulation XIII/15 - Cargo and Other Hatchways

- 1 The construction and the means for securing the weathertightness of cargo and other hatchways in positions 1 and 2 shall be at least equivalent to the requirements of Regulations 16 and 17 of this Chapter.
- 2 Coamings and hatchway covers to exposed hatchways on decks above the superstructure deck shall comply with the requirements of the Administration.

Regulation XIII/16 - Hatchways Closed by Portable Covers and Secured Weathertight by Tarpaulins and Battening Devices

- 1 The coamings of hatchways closed by portable covers secured weathertight by tarpaulins and battening devices shall be of substantial construction, and their height above the deck shall be at least as follows:
 - .1 450 mm if in position 1.

⁴⁰ Refer to the Code on Intact Stability as per Res. A.748(18).

- .2 300 mm if in position 2.
- 2 The width of each bearing surface for hatchway covers shall be at least 65 mm.
 - 3 Where covers are made of wood, the finished thickness shall be at least 60 mm in association with a span of not more than 1.5 m.
 - 4 Where covers are made of mild steel the strength shall be calculated with assumed loads of not less than 1 metric tons per square meter on hatchways in position 1, and not less than 0.75 metric tons per square meter on hatchways in position 2, and the product of the maximum stress thus calculated and the factor 4.25 shall not exceed the minimum ultimate strength of the material. They shall be so designed as to limit the deflection to not more than 0.0028 times the span under these loads.
 - 5 Cleats shall be set to fit the taper of the wedges. They shall be at least 65 mm wide and spaced not more than 600 mm center to center, the cleats along each side or end shall be not more than 150 mm from the hatch comers.
 - 6 Battens and wedges shall be efficient and in good condition. Wedges shall be of tough wood or other equivalent material. They shall have a taper of not more than 1 in 6 and shall be not less than 13 mm thick at the toes.
 - 7 At least two layers of tarpaulin in good condition shall be provided for each hatchway in position 1 or 2. The tarpaulins shall be of waterproof and of ample strength. They shall be of a material of at least an approved standard weight and quality.
 - 8 For all hatchways in position 1 or 2, steel bars or other equivalent means shall be provided in order to secure efficiently and independently each section of hatchway covers after the tarpaulins are battened down. Hatchway covers of more than 1.5 m in length shall be secured by at least two such securing appliances.

Regulation XIII/17 - Hatchways Closed by Weathertight Covers of Steel or Other Equivalent Material Fitted with Gaskets and Clamping Devices

- 1 At positions 1 and 2, the height above the deck of hatchway coamings fitted with weathertight hatch covers of steel or other equivalent material fitted with gaskets and clamping devices shall be as specified in Regulation XIII/16 paragraph 1. The height of these coamings may be reduced, or the coamings omitted entirely, on condition that the safety of the ship is not thereby impaired in any sea conditions to the satisfaction of the

Administration. Where coamings are provided they shall be of substantial construction.

- 2 Where weathertight covers are of mild steel, the strength shall be calculated as provided for in Regulation XIII/16 paragraph 4.
- 3 The strength and stiffness of covers made of materials other than mild steel shall be equivalent to those of mild steel to the satisfaction of the Administration.
- 4 The means for securing and maintaining weathertightness shall be to the satisfaction of the Administration. The arrangements shall ensure that the tightness can be maintained in any sea condition, and for this purpose, tests for tightness shall be required at the initial survey, and may be required at periodical surveys and at annual inspections or at more frequent intervals..

Regulation XIII/18 – Machinery Space Openings

- 1 Machinery space openings in positions 1 and 2 shall be properly framed and efficiently enclosed by steel casings of any ample strength. Access openings in such casings shall be fitted with doors complying with the requirements of Regulation XIII/13 paragraph 1, the sills of which shall be at least 450 mm above the deck if in position 1, and at least 300 mm above the deck if in position 2. Other openings in such casings shall be fitted with equivalent covers, permanently attached in their proper positions.
- 2 Coamings of any fiddley, funnel, or machinery space ventilator in an exposed position on the freeboard or superstructure deck shall be as high above the deck as is reasonable and practicable. Fiddley openings shall be fitted with strong covers of steel or other equivalent material permanently attached in their proper positions and capable of being secured weathertight.

Regulation XIII/19 - Openings in Freeboard and Superstructure Decks

- 1 Manholes and flush scuttles in position 1 or 2 or within superstructures other than enclosed superstructures shall be closed by substantial covers capable of being made watertight. Unless secured by closely spaced bolts, the covers shall be permanently attached.
- 2 Openings in freeboard decks other than hatchways, machinery space openings, manholes and flush scuttles shall be protected by an enclosed superstructure, or by a deckhouse or companionway of equivalent strength and weathertightness. Any such opening in an exposed superstructure deck or in the top of a deckhouse on the freeboard deck which gives access to a space below the

freeboard deck or a space within an enclosed superstructure shall be protected by an efficient deckhouse or companionway. Doorways in such deckhouses or companionways shall be fitted with doors complying with the requirements of Regulation XIII/13.

- 3 In position 1, the height above the deck of sills to the doorways in companionways shall be at least 450 mm. In position 2, it shall be at least 300 mm.

Regulation XIII/20 - Ventilators

- 1 Ventilators in position 1 or 2 to spaces below freeboard decks or decks of enclosed superstructures shall have coamings of steel or other equivalent material, substantially constructed and efficiently connected to the deck. Where the coaming of any ventilator exceeds 760 mm in height it shall be specially supported.
- 2 Ventilators passing through superstructures other than enclosed superstructures shall have substantially constructed coamings of steel or other equivalent material at the freeboard deck.
- 3 Ventilators in position 1 of the coamings of which extend to more than 2.5 m above the deck; and in position 2 the coamings of which extend to more than 1.0 m above the deck, need not be fitted with closing arrangements unless specifically required by the Administration.
- 4 Ventilators in position 1 shall have coamings of a height of at least 600 mm above the deck; in position 2 of the coaming shall be of a height at least 300 mm above the deck. They shall be provided with efficient weathertight closing appliances which shall be conveniently stowed near the ventilators to which they are to be fitted.
- 5 In exposed position, the height of coamings may be required to be increased to the satisfaction of the Administration.

Regulation XIII/21- Air Pipes

Where air pipes to ballast and other tanks extend above the freeboard or superstructure decks, the exposed parts of the pipes shall be of substantial construction; the height from the deck to the point where water may have access below shall be at least 600 mm on the freeboard deck and 300 mm on the superstructure deck. Where these heights may interfere with the working of the ship, a lower height may be approved, provided the Administration is satisfied that the closing arrangements and other circumstances justify a lower height. Satisfactory means permanently

attached shall be provided for closing the openings of the air pipes.

Regulation XIII/22 - Cargo Ports and Other Similar Openings

- 1 Cargo ports and other similar openings in the sides of ships below the freeboard deck shall be fitted with doors so designed as to ensure watertightness and structural integrity commensurate with the surrounding shell plating. The number of such openings shall be the minimum compatible with the design and proper working of the ship.
- 2 Unless permitted by the Administration, the lower edge of such openings shall not be below a line drawn parallel to the freeboard deck at side, which has at its lowest point the upper edge of the uppermost load line.

Regulation XIII/23 - Scuppers, Inlets and Discharges

- 1 Discharges led through the shell either from spaces below the freeboard deck or from within superstructures and deckhouses on the freeboard deck fitted with doors complying with the requirements of Regulation XIII/13 shall be fitted with efficient and accessible means for preventing water from passing inboard. Normally each separate discharge shall have one automatic non-return valve with a positive means of closing it from a position above the freeboard deck. The means for operating the positive action valve shall be readily accessible and be provided with an indicator showing whether the valve is open or closed. The open inboard end of any discharge system shall be above the deepest operating waterline at an angle of heel satisfactory to the Administration.
- 2 In manned machinery spaces, main and auxiliary sea inlets and discharges in connection with the operation of machinery may be controlled locally. The controls shall be readily accessible and shall be provided with indicators showing whether the valves are open or closed.
- 3 Scuppers and discharge pipes originating at any level and penetrating the shell either more than 450 mm below the freeboard deck or less than 600 mm above the summer load waterlines shall be provided with a non-return valve at the shell. This valve, unless required in paragraph 1, may be omitted if the piping is of substantial thickness.
- 4 Scuppers leading from superstructures or deckhouses not fitted with doors complying with the requirements of Regulation XIII/13 shall be led overboard.

- 5 All valves and shell fittings required by this Regulation shall be of steel, bronze or other approved ductile material. Valves of ordinary cast iron or similar material are not acceptable. All pipes to which this Regulation refers shall be of steel or other equivalent material to the satisfaction of the Administration.

$A=0.07(1)$ square meters.

(1) need in no case be taken as greater than 0.7 L.

If the bulwark is more than 1.2 m in average height, the required area shall be increased by 0.004 square meters per meter of length of well for each 0.1 m difference in height. If the bulwark is less than 0.9 m in average height, the required area may be decreased by 0.004 square meters per meter of length of well for each 0.1 difference in height.

Regulation XIII/24 - Side Scuttles, Windows and Other Openings

- 1 Side scuttles to spaces below the freeboard deck or to spaces within enclosed superstructures shall be fitted with efficient hinged inboard deadlights arranged so that they can be effectively closed and secured watertight.
- 2 No side scuttle shall be fitted in a position so that its sill is below a line drawn parallel to the freeboard deck at side and having its lowest point 500 nun above the load waterline.
- 3 The side scuttles, together with their glasses, if fitted, and deadlights shall be of substantial and approved construction.
- 4 The Administration may accept side scuttles and windows without deadlights in side or aft bulkheads of superstructures located on or above the freeboard deck if satisfied that the safety of the ship will not be impaired.
- 5 The number of openings in the side of the ship below the freeboard deck shall be the minimum compatible with the design and proper working of the ship and such openings shall be provided with closing arrangement of adequate strength to ensure watertightness and the structural integrity of the surrounding structure.

- 2 In ships with no sheer, the area calculated according to paragraph 1 shall be increased by 5- percent. Where the sheer is less than the standard, the percentage shall be obtained by interpolation.
- 3 Where a ship is fitted with a trunk and open rails are not fitted on the weather part of the freeboard deck in way of the trunk for at least half their length or where continuous or substantially continuous hatchway side coamings are fitted between detached superstructures, the minimum area of the freeing port openings shall be calculated from the following table:

BREATH OF HATCHWAY OR TRUNK IN REALATION TO THE BREADTH OF SHIP	AREA OF FREEING PORTS IN RELATION TO THE TOTAL AREA OF THE BULWARKS
40 percent or less	20 percent
75 percent or more	10 percent

Regulation XIII/25 - Freeing Ports

- 1 Where bulwarks on the weather portions of freeboard or superstructure decks form wells, ample provision shall be made for rapidly freeing the decks of water and for draining them. Except as provided in paragraphs 2 and 3 of this Regulation, the minimum freeing port area (A) on each side of the ship for each well on the freeboard deck shall be that given by the following formula in cases where the sheer in way of the well is standard or greater than standard. The minimum area of each well on superstructure decks shall be one-half of the area given by the formula:

Where the length of bulwark (1) in the well is 20 m or less:

$$A=0.7 + 0.035(1)$$
 square meters,

where exceeds 20 m:

The area of freeing ports at intermediate breadths shall be obtained by linear interpolation.

- 4 In ships having superstructures which are open at either or both ends, adequate provision for freeing the space within such superstructures shall be provided to the satisfaction of the Administration.
- 5 The lower edges of the freeing ports shall be as near the deck as practicable. Two-thirds of the freeing port area required shall be provided in the half of the well nearest the lowest point of the sheer curve.
- 6 All such openings in bulwarks shall be protected by rails or bars spaced approximately 230 mm apart. If shutters are fitted to freeing ports, ample clearance shall be provided to prevent jamming. Hinges shall have pins or bearings of non-corrosive material. If shutters are fitted with securing

appliances, these appliances shall be of approved construction.

Regulation XIII/26 - Protection of the Crew and Passengers

- 1 The strength of the deckhouses used for the accommodations shall be to the satisfaction of the Administration.
- 2 Efficient guard rails or bulwarks shall be fitted on all exposed parts of the freeboard and superstructure decks. The height of the bulwarks or guard rails shall be at least 1m from the deck, provided that where this height would interfere with the normal operation of the ship, a lesser height may be approved if the Administration is satisfied that adequate protection is provided but in no case a height of less than 600 mm shall be permitted.
- 3 The opening below the lowest course of the guard rails shall not exceed 230 mm. The other courses shall be not more than 380 mm apart. In the case of ships with rounded gunwales the guard rail supports shall be placed on the flat of the deck.
- 4 Satisfactory means (in the form of guard rails, life lines, gangways or underdeck passages etc.) shall be provided for the protection of the crew in getting to and from their quarters, the machinery space and all other parts used in the necessary work of the ship.
- 5 Deck cargo carried on any ship shall be so stowed that any opening which is in way of the cargo and which gives access to and from the crew's quarters, the machinery space and all other parts used in the necessary work of the ship, can be properly closed and secured against the admission of water. Effective protection for the crew in the form of guard rails or life lines shall be provided above the deck cargo if there is no convenient passage on or below the deck of the ship.

Regulation XIII/27 - Special Condition of Assignment/or Tankers

- 1 Tankers of less than 24 m in length shall comply with the provisions of this Regulation.
- 2 Machinery casings shall be protected by an enclosed poop or bridge of at least standard height, or by a deckhouse of equal height and equivalent strength, provided that machinery casings may be exposed if there are no openings giving direct access from the freeboard deck to the machinery space. A door complying with the requirements of Regulation XIII/13 may, however, be permitted in the machinery casing, provided that it leads to a space separated from the stairway to the engine room by a second

weathertight door of steel or other equivalent material.

- 3 An efficiently constructed fore and aft permanent gangway of sufficient strength shall be fitted on tankers at the level of the superstructure deck between the poop and the midship bridge or deckhouse where fitted or equivalent means of access shall be provided to carry out the purpose of gangway, such as passages below deck. Elsewhere, and on tankers without a midship bridge, arrangements to the satisfaction of the Administration shall be provided to safeguard the crew in reaching all parts used in the necessary work of the ship.
- 4 Safe and satisfactory access from the gangway level shall be available between separate crew accommodations and also between crew accommodations and the machinery space.
- 5 Exposed hatchways on the freeboard and forecastle decks or on the tops of expansion trunks on tankers shall be provided with efficient watertight covers of steel or other equivalent material.
- 6 Tankers with bulwarks shall have open rails fitted for at least half the length of the exposed parts of the weather deck or other effective freeing arrangements. The upper edge of the sheer strake shall be kept as low as practicable.
- 7 Where superstructures are connected by trunks, open rails shall be fitted for the whole length of the exposed parts of the freeboard deck.

CHAPTER XIV

FREEBOARD

Regulation XIV/1 - Calculation of Basic Freeboard

- 1 This Chapter adopts the provisions of the International Convention on Load Lines, 1966 relative to freeboard.
- 2 The basic freeboard F for ships between 15 m and 24 m in length is obtained from the formula:

$$F = 50 + \frac{(150L)}{24}$$

where:

L= length of ship in m

F= freeboard in mm.

- 3 Where the actual depth to the upper edge of the deck line is greater or less than the depth for freeboard (D), the difference between the depths shall be added to or deducted from the freeboard.

Regulation XIV/2 - Correction to the Freeboard

- 1 The Administration shall adopt the appropriate provisions of the Load Line Convention to apply corrections to the basic freeboard.
- 2 In calculating the correction to the basic freeboard, the Administration shall take into account the general provisions and conditions of assignment specified in Chapter XIII of these Rules and Regulations to ensure the safety of life at sea and in particular;
 - .1 position of openings;
 - .2 height of sills to the doorways;
 - .3 height of hatchways;
 - .4 height of ventilators and air pipes;
 - .5 weather tightness of the closing appliances including doorways, hatchways, ventilators, machinery space Openings and air pipes.
- 3 The freeboard in salt water in the summer zone, as corrected in accordance with paragraphs 1 and 2 of this Regulation, but without the correction for deck line, as provided in Regulation XIV/1, shall not be less than 50 mm. For ships having hatchways with covers in position 1 which do not comply with the requirements of Regulation XIII/17, the freeboard shall be not less than 150 mm.
- 4 The minimum freeboard in the tropical zone shall be the freeboard obtained by a deduction from the summer freeboard of one-forty-eighth of the summer draught measured from the top of the keel to the center of the ring of the loadline mark and shall not be less than 50 mm. For ships having hatchways with covers in position 1 which do not comply with the requirements of Regulation XII/17, the freeboard shall be not less than 150 mm.
- 5 The minimum freeboard in fresh water of unit density shall be obtained by deducting from the minimum freeboard in salt water the displacement of the ship in salt water in tons at the summer load waterline.
- 6 Where the displacement of the summer load waterline cannot be certified, the deduction shall be one-forty-eighth of summer draught, measured from the top of the keel to the center of the ring of the loadline mark.

CHAPTER XV

REGISTRATION, DOCUMENTATION AND LICENSING OF SHIPS

Regulation XV/1 - Coverage

- 1 This Chapter shall apply to:
 - .1 All types of motorized ships of domestic ownership and of more than three gt;
 - .2 All ships of domestic ownership engaged in towing/pushing or carrying goods and/or passengers for hire regardless of tonnage;

Regulation XV/2 - Registration of Ships

- 1 National Character and Flag
 - .1 Every Philippine-registered ship has the right to fly its flag on the high seas.
 - .2 The sovereignty of the Philippines shall extend to all Philippine-registered ships.
 - .3 The Administration shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying the Philippine flag.
 - .4 A Philippine-registered ship shall fly the national flag at all times.
 - .5 A ship which is not Philippine-registered shall not, for the purpose of making it appear to be a Philippine ship, fly the national colors, unless the assumption of Philippine nationality has been made for the purpose of escaping capture by the enemy or by a foreign ship of war in the exercise of belligerent right (the burden of proof shall lie on the ship owner.)
 - .6 No owner or Master of a Philippine-registered ship shall knowingly do anything to be done, or carry or permit to be carried any papers or documents, with intent to conceal the true nationality of the ship from any person entitled by any law to inquire into the same, or with intent to assume a foreign character for the ship, with intent to deceive any person so entitled as aforesaid.
 - .7 A Philippine-registered ship may not change its flag during a voyage or while in port of call, save in the case of a real transfer of ownership or change of registry and only after permission to do so has been granted by the Administration.
- 2 It shall be the duty of the owner or agent of every ship required to be registered to

immediately file an application with the Administration.

Regulation XV/3 - Certificate of Philippine Registry

1 Every ship used in Philippine waters, not being a transient of foreign registry, shall be registered with the Administration. Ships owned by Philippine nationals to be used in international waters shall likewise be registered with the Administration.

2 Pursuant to the preceding paragraph, the Administration shall grant a Certificate of Philippine Registry (CPR) as evidence of registration, provided that such ships which are not entered in the Philippine register of ships shall be required to secure a ship identity certificate (Certificate of Number).

.1 Where registration is to be effected. The registration of a ship for coastwise trade shall be effected at the original homeport or at the nearest office of the Administration, if the homeport has no registrar. For ships engaged in international trade, registration shall be effected in Manila or any port as may be designated by the Administration. This original homeport shall be referred to as the Port of Registry.

3 Documentation of vessel.

.1 For Overseas

To secure registration of a ship, the owner, master or agent shall file with the Administration at the port of registry of such ship and present the documents required of him by the MARINA for acquisition of the ship to be registered (including imported Pleasure Yacht for personal use).

.2 For Domestic

Upon arrival of the ship in the Philippines, the company shall file a request for inspection of the ship with the Administration, prior to release from the custody of the Bureau of Customs.

.1 After the ship's release from the custody of the Bureau of Customs, the owner/charterer or agent shall apply with the Administration for the issuance of Certificate of Philippine Registry together with the submission of the following requirements:

- .1 Copy of MARINA letter-approval to acquire ship (if applicable);
- .2 Protocol of Delivery and Acceptance;

.3 Deletion of Certificate (if applicable);

.4 Proof of payment of customs, duties and taxes;

.5 Copy of Certification relative to the inspection of the ship by a MARINA surveyor upon arrival at any Philippine port prior to Customs release;

.6 Original copy of duly notarized Builder's Certificate for newly constructed ship;

.7 Copy of plans approval issued by MARINA;

.8 Copy of Certificate of Tonnage Measurement approved by MARINA; and

.9 Duly notarized Affidavit of Ownership and/or Affidavit of Corporate Ownership (for newly constructed ship).

4 Issuance of Provisional Certificate of Philippine Registry (PCPR)

.1 Ships constructed and/or acquired abroad shall, before being brought to the Philippines, secure a Provisional Certificate of Philippine Registry. Application for provisional registration shall be filed with the Administration duly supported with the following documents for MARINA approval of the ship subject for acquisition either through importation/bareboat charter/lease-purchase:

.1 Letter of intent including request for endorsement to the Department of Foreign Affairs (DFA) for issuance of Provisional Certificate of Philippine Registry (PCPR);

.2 Memorandum of Agreement/Lease-Purchase Agreement/Bareboat Charter Contract duly signed with names of signatories printed;

.3 Duly notarized Resolution of the company's Board of Directors, certified by the Board Secretary authorizing the filing of the application and designating the officials/authorized representatives to represent the applicant-company;

.4 Latest Certificate of Good Standing/Company Seal or Business Registration showing the current list of directors/officers of the registered owner;

- .5 Duly notarized/authenticated Power of Attorney or Board Resolution authorizing the signatory to the Memorandum of Agreement/Lease-Purchase/Bareboat Charter Contract to act as such in behalf of the registered owner;
 - .6 Valid Certificate of Ship's Registry;
 - .7 Consent to the bareboat registration of the ships in the Philippines by the state of former registry (for bareboat charter);
 - .8 General Arrangement Plan of the ship;
 - .9 For tankers/barges for carriage of petroleum/petroleum by-products-Clearance from the Energy Industry Administration Bureau/Department of Energy;
 - .10 For fishing vessels - Clearance from the Department of Agriculture/Bureau of Fisheries and Aquatic Resources and Latest Survey Report;
 - .11 For newly built ships - Builder's Certificate; and
 - .12 For log carriers - Clearance from the Department of Environment and Natural Resources.
- .2 If the application is found in order, the Administration shall endorse the same to the Department of Foreign Affairs with the request that the application be transmitted to the Philippine Embassy/Consulate nearest to where the ship is located so that a PCPR can be issued by the embassy/consular officials.

Regulation XV/4 - Certificate of Ownership

Upon permanent registration of a ship, a Certificate of Ownership (CO) shall be issued by the Administration.

Regulation XV/5 - Change of Ownership

- 1 Whenever a change occurs in the ownership of a Philippine-registered ship, the new owner shall present to the registrar at the port of registry an authenticated or notarized bill of sale or any other documents indicating the transfer of ownership of a ship heretofore documented in the Philippines. This shall be done within 15 days after execution/transfer of the sale.

- 2 The registrar in the new homeport shall require clearance from the registrar of the immediate past homeport of the ship. A copy of the CO issued by the registrar in a homeport shall be provided the registrar at the port of registry.
- 3 If the new owner is a Philippine national, a CO shall be issued to such owner by the registrar in the new homeport if there be a corresponding change of homeport, copy furnished the port of registry. A new CPR shall be issued to the new owner by the port of registry and the new trading certificates shall be issued by the new homeport.
- 4 If the new owner is a foreign national, the previous owner shall, within 15 days after the execution/transfer of the bill of sale, secure a Certificate of Deletion (CD) from the Administration at the port of registry.

Regulation XV/6 - Homeport

- 1 Homeport.

A ship shall be homeported in her port of call or her area of operation nearest to where the company's principal office is located.
- 2 Change of Homeport.

A homeport may be changed in any of the following instances:
 - .1 change in ports of call or area of operation of the ship; or
 - .2 change of owner who is domiciled in another place.

Regulation XV/7 - Assignment of Name

- 1 Assignment of Name.
 - .1 An owner of a ship applying for registration or license shall file an application on the prescribed form in triplicate and apply for an original assignment of a proposed name of a ship, for approval.
 - .2 No license or registration documents shall be issued without complying with the aforesaid requirements. The Administration shall not approve an assignment of any name for a ship where it appears that the same name has already been assigned and borne by another ship of more than three gt and of the same class and rig. Approval of applications for assignment of name of ships of three gt and below shall be on a regional office
- 2 Change of Name
 - .1 When an owner of a ship documented in the Philippines desires to change the name of his ship, he shall file an application

with the Administration or registrar/homeport at whose office the registration or license of the ship was issued.

- .2 In every case where a change of name of a ship is approved, a Certificate of Change of Name shall be issued copy furnished the port of registry if the homeport be not the same as the port of registry. A new CPR/CO may be issued upon the request of the owner, reflecting the new name.

Regulation XV/8 - Official Number and Marking Of Ships

- 1 Official Number and Marking of Ships.
 - .1 Every ship documented in the Philippines shall be assigned an official number by the Administration.
 - .2 The official number assigned to a ship shall be carved or otherwise permanently marked in the main beam. The name and official number shall appear on all ship documents.
 - .3 The official number shall be marked at least 76.20 mm in height. When the main beam is of wood, the figures shall be carved or borne thereon in figures not less than 9.53 mm nor more than 12.70 mm in depth, and 12.70 mm in width. If the main beam is of iron or other metal, the official number shall be counter-punched thereon in figures not less than 3.18 mm in depth and by 12.70 mm in width.
 - .4 For open-hulled ships, the assigned official number shall not be less than 25.4 mm in height and not less than 6.35 mm in width and shall be placed at the most accessible frame forward of the engine
 - .5 The name of the ship shall be painted on each side of the bow and the homeport to be painted at the ship's stem.
- 2 Ship Identification Number⁴¹

This applies to all passenger ships of 100 gt and above and to all cargo ships of 300 gt and above.

Regulation XV/9 - Register of Ships

- 1 The Administration shall maintain a registry of ships to be known as "*Register of Philippine Ships*" which shall be kept open to free inspection by the public during regular office hours. Separate registers shall be maintained

for ships engaged in international and coastwise trades.

- 2 The Register of Philippine Ships shall contain the following particulars in such form and detail as the Administration may prescribe:
 - .1 Name of ship;
 - .2 Former name and registry (if applicable);
 - .3 Type of ship;
 - .4 Call sign;
 - .5 Official number;
 - .6 IMO number (for passenger ships of 100 gt and above and for all cargo ships of 300 gt and above)
 - .7 Hull material;
 - .8 Principal dimensions;
 - .9 Tonnages (Gross/Net/Deadweight);
 - .10 Classification society;
 - .11 Horsepower (KW)
 - .12 Main engine;
 - .13 Year built;
 - .14 Builders/Place built;
 - .15 Name, nationality and business address/residence of owner/operator;
 - .16 Homeport;
 - .17 Date of issuance of CPR; and
 - .18 Any material change of condition in respect to any of the preceding items including records of encumbrances.
- 3 Errors made in recording documents shall be rectified in the following manner:
 - .1 Slight errors not affecting the substance of the document, such as misspelled words, shall be corrected by the registrar or the responsible officer by writing the correction above the errors and by affixing his initials beside the correct entry or notation.
 - .2 Any mistake which might affect the meaning of the document may be corrected upon petition or upon notice filed by the concerned party. The correction shall be made by rewriting the entire line or lines right below where the error occurred. Said correction, together with a statement of the circumstances,

⁴¹ IMO SIN Number Scheme, Resolution A.600

shall be signed by the officer-in-charge of the record.

- .3 Errors made in copying shall not be erased. Instead, all required changes shall be made as described above.

Regulation XV/10 - Registration of Alterations and Registration Anew

- 1 When a registered ship is so altered as not to correspond with the particulars relating to her tonnage or registered dimensions contained in the register book, the Administration at the port of registry shall, on application being made to him stating the particulars of the alteration, either cause the alteration to be registered or direct that the ship be registered anew.
- 2 For the purpose of registering an alteration in a ship, the CPR shall be produced to the Administration at the port of registry and the Administration shall grant a new CO/CPR containing a description of the ship as altered.
- 3 The particulars of the alteration so made, and the fact of the new certificate having been granted, shall be entered by the Administration in the register book at the ship's port of registry.

Regulation XV/11 - Deletion of Ships from Philippine Registry

- 1 General Provisions.
 - .1 A ship of domestic ownership shall be deleted or de-registered from the Philippine registry in any of the following cases.
 - .1 when the ship is sold or transferred to a foreign national;
 - .2 when the ship suffers actual or constructive total loss;
 - .3 when the ship is broken up or altered;
 - .4 when the Administration, after due process, orders the deletion from the Philippine registry of any ship found to have violated the government's rules and regulations.
 - .2 A ship chartered or leased from a foreign national which was granted temporary registration in the Philippines for the duration of the charter contract, shall be deleted from the Philippine registry in any of the following cases:
 - .1 when the charter or the lease of the ship expires or is terminated upon mutual agreement by the contracting parties;

- .2 when the Administration revokes approval of the charter/lease contract for cause and after due process;

- .3 when the Certificate of Philippine Registry expires and is renewed; or

- .4 when the ship suffers actual or 'constructive total loss.

Regulation XV/12 – Procedural and Documentary Requirements in the Deletion of Ships from Philippine Registry

- 1 The registered owner of a ship or his authorized agent shall file an application to delete at the port of registry, supported by the following documents:
 - .1 in case of sale of a ship or the transfer of title to a foreign national:
 - .1 Memorandum of Agreement;
 - .2 proof of payment of taxes due the government; and
 - .3 consent/release of all holders of mortgages, which have been duly registered with the Administration, if any.
 - .2 in case of actual or constructive total loss:
 - .1 marine protest or report of the incident or loss of the ship duly notarized and authenticated; or
 - .2 official report from the Administration or the maritime authorities of other countries; or
 - .3 declaration by a competent accredited surveyor as to the fact of the loss.
 - .3 in the case of shipbreaking:
 1. certificate of shipbreaker;
 - .2 all the trading certificates; and
 - .3 consent/release of all holders of mortgages, which have been duly registered with the Administration, if any.
 - .4 in the case of a ship under temporary registry:
 - .1 a favorable endorsement from the Administration;
 - .2 clearance from the telecommunications authorities or the duly designated accounting authority for radio maritime accounts;
 - .3 proof of payment of all moneys due to the crew of the ship at least until the month immediately prior to the filing of the application;

- .4 consent from the ship's registered owners;
 - .5 proof of payment of taxes due the government.
- 2 If the application for deletion is filed by the agent of the registered owner, it must be accompanied by a written authorization duly signed by the owner empowering his agent to file the application and secure the deletion from the Administration at the port of registry.

Regulation XV/13 - Issuance of Deletion Certificate

Upon submission and presentation by the applicant of the documents enumerated in the preceding Regulation, the Administration at the port of registry shall issue a Certificate of Deletion (CD) effective on the date indicated in the certificate. The date and time of the issuance of Certificate of Deletion shall be recorded by the registrar in the Register of Philippine Ships.

Regulation XV/14 - Perfection of Deletion of Ships from Philippine Registry

Deletion of a ship from Philippine registry is deemed perfected:

- 1 Upon receipt of protocol of re-delivery and acceptance within 60 days for a bareboat chartered ship. Responsibilities of the charterer shall extend up to the time the ship shall have been re-delivered to the registered owners as stated in the protocol; or
- 2 After 60 days, should no protocol of re-delivery and acceptance be submitted; or
- 3 If deletion is issued due to the termination of the bareboat charter party, no extension of deletion period should be granted unless the corresponding bareboat charter hire is duly paid.

Regulation XV/15 - Change of Date of Deletion of Ships from Philippine Registry

- 1 If for any valid reason such as the delayed delivery of the ship to the foreign buyer, or if the registered owner wishes to change the date of deletion indicated in the Certificate of Deletion, the Administration at the port of registry may issue an amended Certificate of Deletion indicating the new date. In no case, however, shall the date of deletion be earlier than the date of issuance of the Certificate of Deletion.
- 2 Upon issuance of an amended Certificate of Deletion, the registered owner shall surrender the old CD to the registrar who will cancel the latter document.

Regulation XV/16 - Restrictions on the Re-Registration of Shipwrecked or Abandoned Ships

Where a ship has ceased to be registered by reason of having been wrecked or abandoned, or for any reason other than by capture of the enemy, said ship shall not be re-registered until she has, at the expense of the applicant, been surveyed thoroughly by an accredited surveyor and certified to be seaworthy.

Regulation XV/17 - Re-Registration of a Ship Previously Deleted from Philippine Registry

Re-registration of a ship previously deleted from the Philippine Registry shall be made upon application for re-registration duly supported by the required documents. Re-registration of a ship previously deleted shall not be effected by way of cancellation of the CD but by issuance of new CPR.

Regulation XV/18 - Issuance of Coastwise License (CWL)

- 1 No ship except for those engaged in fishing shall be allowed to engage in the coastwise trade unless a coastwise license is secured from and issued by the Administration upon earlier issuance of Certificate of Inspection (CI) attesting to the ship's capability to engage in the coastwise trade. The CWL shall be valid for a period of one year from its issuance, and shall be separate and distinct from any other certificate issued by the Administration relative to the ship's operation.
- 2 Right to engage in the Philippine coastwise trade is limited to ships issued a CWL provided that Philippine registered ships engaged in international trade shall be required only a special permit.
- 3 All ships engaged in the coastwise trade shall fly the Philippine coastwise emblem. The emblem shall consist of a rectangular white flag with one blue and red stars ranged from staff to tip in the horizontal median line.
- 4 Fishing vessels shall be issued a Commercial Fishing Boat License (CFBL) by the Department of Agriculture/Bureau of Fisheries and Aquatic Resources (BFAR).

Regulation XV/19 - Issuance of Bay and River License (BRL)

- 1 No ship shall be allowed to engage in the business of towing or carrying of articles or passengers in the bays, harbors, rivers, and inland water navigable from the sea unless issued a BRL by the Administration.

- 2 The BRL shall be valid for a period of one year from its issuance, and shall reflect the particular port or other body of water in which the ship may engage in business. The limits of a BRL shall include the confluent river or lake which are navigable during any season of the year.
- 3 To be eligible for a BRL, a ship must be built in the Philippines, and of domestic ownership.
- 4 Exemption of certain craft from requirement of BRL. No BRL shall be required of any of the following classes of ships:
 - .1 Ships of three gt or less;
 - .2 Yachts, launches and other crafts used exclusively for pleasure and recreation;
 - .3 Ship's boats and launches bearing the name, and homeport of the ship plainly marked thereon, and
 - .4 Ships owned by the Government of the Philippines.

The exemption of any ship shall at once cease if it engages in the business of transporting cargo or passengers for hire.
- 5 All lighters, cascoes, paraos and bancas provided with BRL shall bear the letter "B" and "R" and immediately following the same, the number of the license branded or carved in a conspicuous place forward on each bow and painted in dark colors as to render them plainly visible. In case said ship is of steel, the letter and number shall be indelibly chiseled or cut therein.

Regulation XV/20 - Issuance of Pleasure Yacht License (PYL)

- 1 License of Yachts Exclusively for Pleasure. The Administration may issue a PYL to yacht used and employed exclusively for pleasure and not for business, of domestic ownership, on terms which will authorize it to proceed from port to port of the Philippines and to foreign ports without entering or clearing at the port authorities; Provided, however, that any yacht so licensed, upon arriving from a foreign port in the Philippines, shall enter at a port of entry in the Philippines and shall immediately report its arrival. Such license shall be in such form as prescribed by the Administration. Subject yacht shall have its name and port of registration placed on such conspicuous portion of its hull, and in all respects, shall be in accordance with the laws of the Philippines, and shall be liable for any violation.
- 2 Identification of yachts and owners. For the identification of yachts and their owners, a

commission to sail for pleasure in any designated yacht of domestic ownership designating the particular cruise may be issued by the Administration and shall be a token of credit to any Filipino official and to the authorities of any foreign power. All such licensed yachts shall use a signal of the form, size and colors prescribed by the Administration.

Regulation XV/21 - Documentary Requirements in the Issuance of Licenses

The following documentary and other requirements must be submitted/complied with when applying for the issuance of a license under this Chapter:

- 1 Duly accomplished application form;
- 2 CPR/CO;
- 3 CI;
- 4 Payment of filing fee prescribed under existing rules and regulations; and
- 5 Payment of energy tax in accordance with P.D. 845 and its implementing guidelines (for all motorized/speedboats, yacht, launches and other watercraft used for pleasure and recreation)

In case of renewal of license, the foregoing documents, except item No. 2, apply.

Regulation XV/22 - Renewal of Licenses

The licenses granted herein shall be presented for renewal at the central office or regional offices of the Administration where the owner/operator resides or the ship is homeported on or before the expiration date thereof. In case any license of a ship expires while at sea, the owner, master or agent of the ship shall present said expired license for renewal upon arrival. The owner, master or agent of ship not in operation for any cause shall surrender the license on or before its expiration with the request of deferment or renewal.

Regulation XV/23 - Transfer of Licenses

Whenever the owner, master or agent of a ship applies for a transfer of license from one owner to another, the corresponding license shall be issued to the owner, subject to the submission or compliance with the necessary documentary requirements.

Regulation XV/24 - Revocation of Licenses or Certificates

The Administration may revoke any license or certificates issued under this Chapter in the following cases:

- 1 Deletion of the ship from the Philippine registry for causes under Regulation XV/11; or
- 2 When it shall appear to the Administration that any license or certificate was fraudulently or improperly issued.

Regulation XV/25 - Registration of Mortgages

- 1 Every mortgage of a ship which is registered in the Philippines shall be registered in the Record of Transfer and Encumbrances of Ships.
- 2 Documentary Requirements.

The following documentary requirements must be submitted when applying for the annotation/cancellation of mortgages and transfer of rights and other encumbrances of ships:

- .1 Letter of Intent;
 - .2 Duly accomplished application form;
 - .3 Duly notarized mortgage contract;
 - .4 Proof of payment of documentary stamp tax; and
 - .5 Original CO and CPR, or CN, if applicable.
- 3 Annotation of Mortgages and Transfer of Rights and Other Encumbrances of Ships. The Administration shall record all mortgages, transfer of rights and other encumbrances duly delivered to it in the order of their reception in the book(s) to be kept for that purpose and shall be indexed to show:
 - .1 The name of the ship;
 - .2 The name and postal address of the parties to the mortgage;
 - .3 The time and date of reception of instrument;
 - .4 The interest of the mortgagor in the ship being mortgaged;
 - .5 The date of the mortgage contract;
 - .6 The amount and date of maturity of the mortgage;
 - .7 Name, nationality and residence of the owner of the ship; and

.8 Any material change of condition in respect to any of the preceding items. Annotation of the mortgage shall likewise be reflected at the back of the CPR and CO, or CN, whenever applicable.

4 Cancellation of Mortgages.

Annotation of mortgages, transfer of rights and other encumbrances shall be canceled from the book under the following circumstances:

- .1 Proof of full payment of the mortgage debt;
 - .2 Total loss or constructive total loss of the mortgaged ship;
 - .3 Foreclosure Order;
 - .4 Court Order to delete all registered mortgages,
- #### 5 Fees and Charges.
- .1 Recording/annotation of mortgages and transfer of rights and other encumbrances shall be subject to payment of fees and charges.

CHAPTER XVI

PREVENTION OF MARINE POLLUTION

Regulation XVI/1 - Application of MARPOL73/78

The provisions of the International Convention for the Prevention of Pollution from Ships 1973 and its 1978 Protocol, as amended, and national legislations and issuances to implement thereto, shall apply to ships covered by these Rules and Regulations. Where the Administration considers the provisions relating to construction and equipment unreasonable or impracticable, it may exempt such ships from such provisions, provided that the construction and equipment of that ship provides equivalent protection against pollution of the marine environment, having regard to the service for which the ship is intended.

CHAPTER XVII

HIGH SPEED CRAFT (HSC)

Regulation XVII/1 - Application

This Chapter adopts the High Speed Craft (HSC) Code under IMO Maritime Safety Committee Resolution No. 36(63) dated 20 May, 1994 and shall apply to the following:

- 1 Passenger high speed craft.

- 2 Cargo high speed craft of 500 gt and above.

Regulation XVII/2 - Definitions

For the purpose of this Chapter, unless expressly provided otherwise, the terms used herein have the meanings defined in the following paragraphs:

- 1 *Air Cushion Vehicle (ACV)* is a craft such that the whole or a significant part of its weight, can be supported, whether at rest or in motion, by a continuously generated cushion of air dependent for its effectiveness on the proximity of the surface over which the craft operates.
- 2 *Base Port* is a specific port identified in the route operational manual and provided with;
- .1 appropriate facilities providing continuous radio communications with the craft at all times while in ports and at sea;
 - .2 means for obtaining a reliable weather forecast for the corresponding region and its due transmission to all craft in operation;
 - .3 access to facilitate provided with appropriate rescue and survival equipment; and
 - .4 access to craft maintenance services with appropriate equipment.
- 3 *Category A craft* is any high-speed passenger craft:
- .1 operating on a route where it has been demonstrated to the satisfaction of the Administration that there is a high probability that, in the event of an evacuation at any point of the route, all passengers and crew can be rescued safely within the least of:
 - .1 the time appropriate with respect to environmental conditions and geographical features of the route, or
 - .2 four hours; and
 - .2 carrying not more than 450 passengers.
- 4 *Category B craft* is any high-speed passenger craft, other than Category A craft, with machinery and safety systems arranged such that, in the event of damage, disabling any essential machinery and safety systems in one compartment, the craft retains the capability to navigate safely.
- 5 *Continuously Manned Control Station* is a control station which is continuously manned by a responsible member of the crew while the craft is in normal service.

- 6 *Control Stations* are those spaces in which the craft radio or navigating equipment or the emergency source of power and emergency switchboard are located, or where the fire recording or fire control equipment is centralized, or where other functions essential to the safe operations of the craft, such as propulsion control, public access, stabilization systems, etc., are located.

- 7 *Highspeed Craft* is a craft capable of a maximum speed, in meters per second (m/s), equal to or exceeding:

$$3.7\nabla^{0.1667}$$

where:

∇ = displacement corresponding to the design waterline (m³).

- 8 *Hydrofoil Boat* is a craft which is supported above the water surface in non-displacement mode by hydro-dynamic forces generated on foils.
- 9 *Maximum Speed* is the speed achieved at the maximum continuous propulsion power for which the craft is certified at maximum operational weight and in smooth water.
- 10 *Operating Station* means a confined area of the operating compartment equipped with necessary means for navigation, maneuvering, and communication, and from where the functions of navigating, maneuvering, communication, commanding, conning and lookout are carried out.
- 11 *Operational Speed* is 90% of the maximum speed.
- 12 *Place of Refuge* is any naturally or artificially sheltered area which may be used as a shelter by a craft under conditions likely to endanger its safety.
- 13 *Public Spaces* are those spaces allocated for the passengers and include bars, kiosks, smoke rooms, main seating areas, lounges, dining rooms, recreation rooms, lobbies, lavatories and similar permanently enclosed spaces allocated for passengers.

Regulation XVII/3 - General Provisions

- 1 Such craft, irrespective of the date of construction which undergoes repairs, alterations, modifications and outfitting related thereto shall continue to comply with at least 'the' requirements previously applicable to such craft. Such a craft, if constructed before 01 January 1996, shall, as a rule, comply with the requirements for a craft constructed on or after that date to at least the same extent as it did before undergoing such repairs, alterations,

modifications or outfitting. Repairs, alterations and modifications of a major character, and outfitting related thereto, shall meet the requirements for a craft constructed on or after 01 January 1996 in so far as the Administration deems reasonable and practicable.

- 2 Compliance with structural standards of a classification society recognized by the Administration may be accepted as satisfactory proof of the structural adequacy of a craft.
- 3 The management of the company operating the craft shall exercise strict control over its operation and maintenance through a safety management system.
- 4 The management shall ensure that only persons duly qualified and certificated to operate the specific type of craft used on the intended route are employed:
- 5 The distances covered and the worst intended conditions in which operations are permitted will be restricted by the imposition of the following operational limits:
 - .1 The craft will at all times be in reasonable proximity to a place of refuge, depending on the following conditions:
 - .1 Passenger craft should not proceed in the course of its voyage more than four hours at operational speed from a place of refuge when fully laden;
 - .2 Cargo craft of 500 gt and above should not proceed in the course of its voyage more than eight hours at operational speed from a place of refuge when fully laden;
 - .2 Adequate communications facilities, weather forecasts and maintenance facilities are available within area of operation;
 - .3 In the intended area of operation, there will be suitable rescue facilities readily available;
 - .4 Efficient facilities are provided for the rapid and safe evacuation of all persons into survival craft:
- 6 The areas of high fire risk, such as machinery spaces and special category spaces, shall be protected with fire resistant materials and fire extinguishing systems to ensure, as far as practicable, containment and rapid extinguishment of fire.
- 7 All passengers and crew must be provided with fixed seats with belts as necessary.

- 8 There shall be no enclosed sleeping berths for passenger.
- 9 Existing crafts engaged in the domestic trade shall comply with this Chapter to a degree determined by the Administration.

Regulation XVII/4 – Surveys

The inspection and survey of the craft, so far as regards the enforcement of the provisions of the HSC Code, shall be carried out by the Administration. The Administration may, however, entrust the inspections and surveys either to surveyors nominated for the purpose or to organizations recognized by it.

Regulation XVII/5 - Equivalentents

- 1 Where the HSC Code requires that a particular fitting, material, appliance or apparatus, or type thereof should be fitted or carried in a craft, or that any particular provision should be made, the Administration may allow any other fitting, material, appliance or apparatus, or type thereof, to be fitted or carried, or any other provision to be made in the craft, if it is satisfied by trial thereof or otherwise that such fitting, materials, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by the Code.
- 2 Where compliance with any of the requirements of the HSC Code would be impractical for the particular design of the craft, the Administration may substitute those with alternative requirements provided that equivalent safety is achieved.

Regulation XVII/6 – Certification

- 1 *Engaged in International Voyage*
 - .1 A High Speed Craft which complies with the requirements of HSC Code in its entirety and which has been surveyed and certified as provided for in the Code shall be deemed to have complied with the requirements of Chapters I to IV and Regulation V/12 of SOLAS 1974, as amended.
 - .2 The certificate (HSC Safety Certificate) and permit (Permit to Operate HSC) issued under the HSC Code shall have the same force and the same recognition as the certificates issued under Chapter I of SOLAS 1974, as amended.
- 2 *Engaged in Coastwise Voyage*

Such craft shall be issued a Certificate of Inspection (CI) upon compliance with the following insofar as reasonable and practicable as may be determined by the Administration:

 - .1 The stability, accommodation and escape measures, fire safety and operating

compartment layout shall be in accordance with Chapters 2,4,7,15 of the HSC Code.

- .2 The minimum requirements for life-saving appliances, navigational equipment and radio installations equipment shall comply with the provisions of Chapter 8, 13 and 14 of the HSC Code.

Regulation XVII/7 - Documentation

The craft shall be provided with adequate information and guidance in the form of technical manuals to enable the craft to be operated and maintained safely. The technical manuals should consist of Route Operational Manual, Craft Operating Manual, Training Manual, Maintenance Manual and Servicing Schedule. Arrangements should be made for such information to be updated as necessary.

CHAPTER XVIII - MINIMUM SAFE MANNING

This Chapter sets forth the minimum safe manning requirements of Philippine- registered ships and defines the duties and responsibilities of officers and ratings in consonance with the provisions of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978/1995, IMO Res. A;481(XII); the Code of Commerce of the Philippines, as amended; the Tariff and Customs Code of the Philippines, as amended; and Executive Order 125/125-A, series of 1987.

Regulation XVIII/1 - Definitions

For the purpose of this Chapter, unless expressly provided otherwise:

- 1 *Safe Manning* is the number of qualified, competent and certificated officers and ratings on board a ship who can safely operate her at all times.
- 2 *Master* is the person having command of a ship.
- 3 *First Officer* is a licensed deck officer next in rank to the master and upon whom the command of a ship will fall in the event of the incapacity of the Master.
- 4 *Second Officer* is a licensed deck officer duly designated as such and is third in command of the ship.
- 5 *Third Officer* is a licensed deck officer duly designated as such and is the fourth in command of the ship.
- 6 *Chief Engineer* is a senior licensed marine engineer officer responsible for the mechanical propulsion and the operation and maintenance of the mechanical and electrical installations of the ship.
- 7 *First Asst. Engineer* is a licensed marine engineer officer next-in-rank to the Chief Engineer and upon whom the responsibility for the mechanical propulsion of the ship will fall in the event of the incapacity of the Chief Engineer.
- 8 *Second Asst. Engineer* is a licensed marine officer designated as such to assist the Chief Engineer
- 9 *Third Asst. Engineer* is a licensed marine engineer officer designated as such to assist the Chief Engineer.
- 10 *Marine ,Diesel, Mechanic (MDM)* is any person authorized by the Administration to operate and maintain diesel engine in accordance with this chapter.
- 11 *Radio Officer* is a person holding an appropriate certificate issued and recognized by the Administration under the provision of the Radio Regulations.
- 12 *Medical Practitioner* is a registered Doctor of Medicine in charge of the medical department of the ship.
- 13 *Nurse* is a licensed nurse and designated as ship nurse.
- 14 *Electrician* is a licensed master electrician who is responsible for the maintenance of the electrical and electronic installations of the ship.
- 15 *Ratings* are crew other than the officers.
- 16 *Ro-Ro passenger ship* means a passenger ship with Ro-Ro cargo spaces or special category spaces as defined in the SOLAS 1974.
- 17 *STCW Code* means the Seafarer's Training, Certification and Watchkeeping (STCW) Code as adopted by the 1978 STCW Convention, as amended.
- 18 *Function* means a group of tasks, duties and responsibilities as specified in the STCW Code, necessary for ships operation, safety of life at sea or protection of the marine environment.
- 19 *Management level* means the level of responsibility associated with:
 - .1 serving as master, chief mate, chief engineer or second engineer officer on board a seagoing ship; and

- .2 ensuring that all functions within the designated area of responsibility are properly performed.
- 20 *Operational level* means the responsibility associated with:
- .1 serving as officer-in-charge of a navigational or engineering watch or as designated duty engineer for periodically unmanned machinery spaces or as radio operator on board a seagoing ship; and
- .2 maintaining direct control over the performance of all functions within the designated area of responsibility in accordance with proper procedures and under the direction of an individual serving in the management level for that area of responsibility.
- 21 *Support level* means the level of responsibility associated with performing assigned tasks, duties and responsibilities on board a seagoing ship under the direction of an individual serving in the operational or management level.
- 22 *MAP* means a licensed Major Patron.
- 23 *MIP* means a licensed Minor Patron.

Regulation XVIII/2 - General Provisions

- 1 Philippine-registered ships shall be completely manned by Filipino officers and ratings, except as authorized by the Administration.
- 2 Masters, officers and ratings on board Philippine-registered ships shall be duly qualified, competent, certificated and medically fit in accordance with these Rules and Regulations.
- 3 The Administration shall issue the required manning certificate, indicating the minimum safe manning requirements, license/qualifications and STCW Regulations.
- 4 Masters, officers and ratings performing watchkeeping duties shall meet the training requirements of STCW 1978, as amended, and those not performing watchkeeping duties shall undergo the basic safety training. For high speed craft, the crew shall undergo additional training in accordance with IMO Res. MSC 36(63)⁴² adopted 20 May 1994.
- 5 Ships engaged in international trade, carrying more than 1000 passengers are required to have on board one medical practitioner and one registered nurse, while those carrying

1000 passengers or less shall have one medical

- 6 Ships engaged in the domestic trade shall have on board medical personnel in relation to the number of passengers and duration of voyage as shown below:

No. of Passengers	Voyage Duration	Medical Personnel required
500 to 2000	12 hrs or less	one registered nurse or midwife
	Over 12 hours	one medical practitioner
Over 2000	12 hrs or less	One registered nurse
	Over 12 hrs	one medical practitioner one registered nurse

- .1 Such medical practitioner and nurse or midwife shall undergo an orientation/refresher course on public health in relation to ship sanitation to be conducted by the health authority.
- .2 Such medical practitioner named as Ship Health Officer shall be responsible for ensuring at all times the necessary standards of ship's hygiene and cleanliness.
- .3 During the voyage the medical practitioner shall maintain health records/logbook and supply any information required by the health authority as to health conditions on board during the voyage.
- .4 The Master shall make known to the health authority immediately upon discovery of any case of illness which is communicable in nature or death on board to protect the interest of other passengers and to facilitate the clearance of the ship without endangering public health.
- 7 Masters and first officers in the international voyage (Category I) must be holders of Radio General Operator's Certificate (GOC). Radio Officers who are holders of the following license may be allowed by the Administration on board until 1 February 1999.

<u>Class</u>	<u>Tonnage</u>	<u>Radio License</u>
A, B, C, D	over 500 gt	one 1st Class
	500 & below	one 2nd Class
E	over 1600 gt	one 1st Class
	500 -1600	one 2nd Class
	below 500	one 3rd Class

⁴² International Code for Safety of Highspeed Craft (HSC), Chapter 17, page 93.

- 8 Masters and first officers in the coastwise voyage (Category II) and bay and river voyage (Category III) must be holders of Ship Radio Mobile Operator's Certificate issued by the National Telecommunications Commission. Radio Officers shall hold the licenses for the following:

<u>Class</u>	<u>Tonnage</u>	<u>Radio</u>
A, B	over 500 gt	one 2nd Class
	over 250 gt	one 3rd Class
C,D,E	over 1600 gt	one 2nd Class
	over 500 -1600 gt	one 3rd Class

- 9 The steward Department shall be adequately staffed for the provision of food and other services to the crew and passengers. All stewards and food handlers shall comply with the basic safety training and health requirements and must be holders of valid Seafarer's Identification and Record Book (SIRB). All other personnel referred to in paragraph 2 of Regulation XVIII/10 are likewise required the basic safety training course certificate and the Seafarer's Identification and Record Book (SIRB).

Regulation XVII/3 – The Minimum Safety Manning

- 1 The minimum safe manning of ships for which this Chapter apply, takes cognizance of the following:
- .1 Length and nature of voyage and trading route;
 - .2 Construction and technical equipment of ships (degree of automation)
 - .3 Number, size (KW) and type of main propulsion units and auxiliary;
 - .4 Size of ships: tonnage and type;

3. CATEGORY 1: Ships Engaged in International Voyage

- .1 Class A: Passenger Ships
 .1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
Below 500	1	Master	Chief Mate
	1	1 st Officer	2 nd Mate
	1	2 nd Officer	3 rd Mate
	2	Deck Watchkeeper	
	2	Deck Rating	
	500-999	1	Master
1		1 st Officer	2 nd Mate
1		2 nd Officer	3 rd Mate
2		Deck Watchkeeper	
2		Deck Rating	
1000 and over		1	Master
	1	1 st Officer	Chief Mate
	1	2 nd Officer	2 nd Mate

- .4 Size of ships: tonnage and type;
- .5 Care of passengers' safety;
- .6 Radio and health personnel regulations; and
- .7 Alteration, job-combination or overlapping competence.

In circumstances where flexibility is required, the applicant shall be qualified, certificated and medically fit to perform additional duties.

2. The size of the crew is deemed sufficient in terms of officers and ratings with appropriate skills and experience to ensure a degree of safety at least equivalent to that established under IMO Res. No. A 481 (XII) (Principles of Safe Manning).
3. The provision of ship's electrician depends on the sum of the effective ratings of the electric generators exceeds 1500 KW. The total breaking effect in KW of the propelling machinery is specified by the engine manufacturer (1 KW = 1.36 HP).
4. Where the engine room is periodically unmanned, as certified by the classification society, the manning is reduced by one officer and rating performing watch duties.

Regulation XVIII/4 – Tables of Minimum Safe Manning

1. These Tables of Minimum Safe Manning are general manning, subject to the provisions of Regulations XVIII/2, XVIII/6 and XVIII/7 and within the context of Regulation XVIII/3.
2. Minimum safe manning is assessed on a case to case basis, upon request of the company and subject to the approval of the Administration.

1	3 rd Officer	3 rd Mate
1	Boatswain	
3	Deck Watchkeeper	
3	Deck Rating	

.2 Engine Department

Power	No.	Position	License/Qualification
Under 1500 KW or Under 2000 Hp periodically Unmanned engine room	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	
Under 1500 KW or under 2000 Hp periodically manned engine room	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	1	3 rd Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	
Over 1500 KW and under 3000 KW or Over 2000 Hp and under 4000 Hp Periodically unmanned engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
	2	Engine Watchkeeper	
Over 1500 KW and under 3000 KW or Over 2000 Hp manned engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
	3	Engine Watchkeeper	
3000 KW and over or 4000 Hp and over Periodically unmanned engine room	2	Engine Rating	
	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
3000 KW and over or 4000 Hp and over Manned engine room	1	Asst. Electrician	
	3	Engine Watchkeeper	
	2	Engine Rating	
	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	3 rd Engineer
	1	3 rd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
	1	Asst. Electrician	
	3	Engine Watchkeeper	
	2	Engine Rating	

.2 Class B: Cargo Ships

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
Below 500	1	Master	Chief Mate
	1	1 st Officer	2 nd Mate
	1	2 nd Officer	3 rd Mate
	2	Deck Watchkeeper	
	1	Deck Rating	
500-999	1	Master	Master Mariner
	1	1 st Officer	2 nd Mate
	1	2 nd Officer	3 rd Mate
	1	Boatswain	
	3	Deck Watchkeeper	
1000 and over	1	Deck Rating	
	1	Master	Master Mariner
	1	1 st Officer	Chief Mate
	1	2 nd Officer	2 nd Mate
	1	3 rd Officer	3 rd Mate
	1	Boatswain	
	3	Deck Watchkeeper	
	1	Deck Rating	

.2 Engine Department

Power	No.	Position	License/Qualification
Under 1500 KW or Under 2000 Hp periodically Unmanned engine room	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	2	Engine Rating	
Under 1500 KW or Under 1500 KW or under 2000 Hp manned engine room	1	Chief Engineer	2 nd Engineer
	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	1	3 rd Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	
Over 1500 KW and under 3000 KW or Over 2000 Hp and under 4000 Hp Periodically unmanned engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
	2	Engine Watchkeeper	
Over 1500 KW and under 3000 KW or Over 2000 Hp And under 4000 Hp manned engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	3 rd Engineer
	1	3 rd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
	3	Engine Watchkeeper	
	2	Engine Rating	
3000 KW and over or 4000 Hp and over Periodically unmanned engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	3 rd Engineer
	1	Electrician	Master Electrician
	1	Asst. Electrician	
	3	Engine Watchkeeper	
3000 KW and over or 4000 Hp and over Manned engine room	2	Engine Rating	
	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	3 rd Engineer
	1	3 rd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
	3	Engine Watchkeeper	
2	Engine Rating		

.3 Class C: Tankers

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
Below 500	1	Master	Chief Mate
	1	1 st Officer	2 nd Mate
	1	2 nd Officer	3 rd Mate
	2	Deck Watchkeeper	
	1	Deck Rating	Pumpman
	500-999	1	Master
1		1 st Officer	2 nd Mate
1		2 nd Officer	3 rd Mate
1		Boatswain	
3		Deck Watchkeeper	
1		Deck Rating	Pumpman
1000 and over	1	Master	Master Mariner
	1	1 st Officer	Chief Mate
	1	2 nd Officer	2 nd Mate
	1	3 rd Officer	3 rd Mate
	1	Boatswain	
	3	Deck Watchkeeper	
	1	Deck Rating	Pumpman

.2 Engine Department

Power	No.	Position	License/Qualification
Under 1500 KW or Under 2000 Hp periodically Unmanned engine room	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	2	Engine Rating	
Under 1500 KW or under 2000 Hp manned	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer

Engine room	1	3 rd Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	
	1	Engine Rating	
Over 1500 KW and under 3000 KW or Over 2000 Hp and under 4000 Hp Periodically unmanned Engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
	2	Engine Watchkeeper	
Over 1500 KW and under 3000 KW or Over 2000 Hp And under 4000 Hp manned Engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	3 rd Engineer
	1	3 rd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
	3	Engine Watchkeeper	
	2	Engine Rating	
3000 KW and over or 4000 Hp and over Periodically unmanned Engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	3 rd Engineer
	1	Electrician	Master Electrician
	1	Asst. Electrician	
	3	Engine Watchkeeper	
	2	Engine Rating	
3000 KW and over or 4000 Hp and over Manned engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	3 rd Engineer
	1	3 rd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
	1	Asst. Electrician	
	3	Engine Watchkeeper	
	2	Engine Rating	

.4 Class D: Tug, dredgers and Anchor Handling

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
Below 500	1	Master	Chief Mate
	1	1 st Officer	2 nd Mate
	1	2 nd Officer	3 rd Mate
	2	Deck Watchkeeper	
	1	Deck Rating	Pumpman
	500 and over	1	Master
1		1 st Officer	Chief Mate
1		2 nd Officer	2 nd Mate
1		3 rd Officer	3 rd Mate
3		Deck Watchkeeper	
2		Deck Rating	

.2 Engine Department

Power (KW)	No.	Position	License/Qualification
Below 2500	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
	2	Engine Watchkeeper	
	2500 and over	1	Chief Engineer
1		1 st Asst. Engineer	2 nd Engineer
1		2 nd Asst. Engineer	3 rd Engineer
1		3 rd Asst. Engineer	4 th Engineer
1		Electrician	Master Electrician
2		Engine Watchkeeper	

.5 Class E: Fishing Vessels

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
Below 500	1	Master	3 rd Mate/MIP
	1	1 st Officer	MIP
	1	Boatswain	
	2	Deck Watchkeeper	
	1	Deck Rating	
	500-1599	1	Master

	1	1 st Officer	3 rd Mate
	1	2 nd Officer	3 rd Mate/MAP
	1	Boatswain	
	2	Deck Watchkeeper	
	2	Deck Rating	
1600 and over	1	Master	2 nd Mate
	1	1 st Officer	3 rd Mate
	1	2 nd Officer	3 rd Mate/MAP
	1	3 rd Officer	3 rd Mate/MIP
	1	Boatswain	
	2	Deck Watchkeeper	
	2	Deck Rating	

.2 Engine Department

Power (KW)	No.	Position	License/Qualification
Below 1000	1	Chief Engineer	4 th Engineer
	1	1 st Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	
1000-2999	1	Chief Engineer	3 rd Engineer
	1	1 st Asst. Engineer	4 th Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	
3000 and above	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	3	Engine Watchkeeper	
	2	Engine Rating	

.6 Class F: Pleasure Yachts

.1 Deck and Engine Department

Tonnage (gt)	No.	Position	License/Qualification
Below 200	1	Master	3 rd Mate
	1	Chief Engineer	MDM
200-800	1	Master	2 nd Mate
	1	Chief Engineer	4 th Engineer
Over 800	1	Master	Chief Mate
	1	Chief Engineer	2 nd Engineer

4. CATEGORY 2: Ships Engaged in Coastwise Voyage

.1 Class A: Passenger Ships

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
Below 35	1	Master	Boat Captain
	1	Deck Rating	
35-99	1	Master	MIP
	1	1 st Officer	Asst. Boat Captain
	1	Deck Rating	
100-249	1	Master	MAP
	1	1 st Officer	MIP
	2	Deck Rating	
250-499	1	Master	2 nd Mate/MAP
	1	1 st Officer	3 rd Mate
	1	2 nd Officer	3 rd Mate/MIP (optional)
	2	Deck Watchkeeper	
	1	Deck Rating	
500-999	1	Master	2 nd Mate/MAP
	1	1 st Officer	3 rd Mate
	1	2 nd Officer	3 rd Mate/MIP
	2	Deck Watchkeeper	
	2	Deck Rating	
1000-1599	1	Master	Chief Mate
	1	1 st Officer	2 nd Mate
	1	2 nd Officer	3 rd Mate
	1	Boatswain	

	3	Deck Watchkeeper	
	3	Deck Rating	
1600and over	1	Master	Master Mariner
	1	1 st Officer	Chief Mate
	1	2 nd Officer	2 nd Mate
	1	3 rd Officer	3 rd Mate
	1	Boatswain	
	3	Deck Watchkeeper	
	3	Deck Rating	

.2 Engine Department

Power (BHP)	No.	Position	License/Qualification
Under 70	1	Chief Engineer	Boat Engineer
	1	Engine Rating	
70-499	1	Chief Engineer	4 th Engineer
	1	1 st Asst. Engineer	4 th Engineer
	1	Engine Rating	
500-1499	1	Chief Engineer	3 rd Engineer
	1	1 st Asst. Engineer	4 th Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	
1500-2999	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	4 th Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	
	2	Engine Rating	
3000 and over	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	3 rd Engineer
	1	3 rd Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	
	2	Engine Rating	

.2 Class B: Cargo Ships

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
Below 35	1	Master	Boat Captain
	1	Deck Rating	
35-99	1	Master	MIP
	1	1 st Officer	Asst. Boat Captain
	2	Deck Rating	
100-249	1	Master	3 rd Mate/MAP
	1	1 st Officer	MIP
	2	Deck Rating	
250-499	1	Master	2 nd Mate/MAP
	1	1 st Officer	3 rd Mate
	1	2 nd Officer	3 rd Mate/MIP (optional)
	2	Deck Watchkeeper	
	2	Deck Rating	
500-999	1	Master	2 nd Mate
	1	1 st Officer	3 rd Mate/MAP
	1	2 nd Officer	3 rd Mate/MIP
	1	Boatswain	
	2	Deck Watchkeeper	
	2	Deck Rating	
1000-1599	1	Master	Master Mariner
	1	1 st Officer	Chief Mate
	1	2 nd Officer	3 rd Mate
	1	Boatswain	
	3	Deck Watchkeeper	
	2	Deck Rating	
1600and over	1	Master	Master Mariner
	1	1 st Officer	Chief Mate
	1	2 nd Officer	2 nd Mate
	1	3 rd Officer	3 rd Mate
	1	Boatswain	
	3	Deck Watchkeeper	

.2 Engine Department

Power (BHP)	No.	Position	License/Qualification
Under 70	3	Deck Rating	
	1	Chief Engineer	Boat Engineer
70-249	1	Engine Rating	
	1	Chief Engineer	4 th Engineer
	1	1 st Asst. Engineer	Marine Diesel Mechanic
250-499	1	Engine Rating	
	1	Chief Engineer	4 th Engineer
	1	1 st Asst. Engineer	4 th Engineer
500-1499	1	Engine Rating	
	1	Chief Engineer	3 rd Engineer
	1	1 st Asst. Engineer	4 th Engineer
	1	2 nd Asst. Engineer	4 th Engineer
1500-2999	2	Engine Watchkeeper	
	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	4 th Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
3000 and over	3	Engine Watchkeeper	
	2	Engine Rating	
	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	3 rd Engineer
	1	3 rd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician

.3 Class C: Tankers

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
Below 500	1	Master	2 nd Mate
	1	1 st Officer	3 rd Mate
	1	Quartermaster	
	1	Deck Rating	Pumpman
500-999	1	Master	2 nd Mate
	1	1 st Officer	3 rd Mate/MAP
	1	2 nd Officer	3 rd Mate/MIP
	2	Deck Watchkeeper	
	2	Deck Rating	Pumpman
1000 and over	1	Master	Master Mariner
	1	1 st Officer	Chief Mate
	1	2 nd Officer	2 nd Mate
	1	3 rd Officer	3 rd Mate
	1	Boatswain	
	3	Deck Watchkeeper	
	2	Deck Ratings	Pumpman

.2 Engine Department

Power (BHP)	No.	Position	License/Qualification
Under 70	1	Chief Engineer	Boat Engineer
	1	1 st Asst. Engineer	Asst. Boat Engineer
70-249	1	Chief Engineer	4 th Engineer
	1	1 st Asst. Engineer	Marine Diesel Mechanic
	1	Engine Rating	
250-499	1	Chief Engineer	4 th Engineer
	1	1 st Asst. Engineer	4 th Engineer
	1	Engine Rating	
500-1499	1	Chief Engineer	3 rd Engineer
	1	1 st Asst. Engineer	4 th Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	

1500-2999	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	4 th Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	
	2	Engine Rating	
3000 and over	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	3 rd Engineer
	1	3 rd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
	2	Engine Watchkeeper	
	2	Engine Rating	

.4 Class D: Tug, Dredgers and Anchor Handling

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
35 and below	1	Master	MIP/Boat Captain
	1	Deck Rating	
Over 35-100	1	Master	3 rd Mate/MIP
	1	1 st Officer	3 rd Mate/MIP
	1	Deck Rating	
Over 100-250	1	Master	2 nd Mate/MAP
	1	1 st Officer	3 rd Mate/MIP
	2	Deck Rating	
Over 250-500	1	Master	2 nd Mate/MAP
	1	1 st Officer	3 rd Mate/MIP
	1	2 nd Officer	3 rd Mate/MIP
	1	Boatswain	
	1	Deck Rating	
500 and over	1	Master	MAP
	1	1 st Officer	MIP
	1	2 nd Officer	MIP
	2	Deck Watchkeeper	

.2 Engine Department

Power (BHP)	No.	Position	License/Qualification
100 and under	1	Chief Engineer	MDM
	1	Engine Rating	
Over 100 – 250	1	Chief Engineer	MDM
	2	Engine Rating	
Over 250 – 1500	1	Chief Engineer	4 th Engineer
	1	1 st Asst. Engineer	MDM
	2	Engine Watchkeeper	
Over 1500 – 3000	1	Chief Engineer	3 rd Engineer
	1	1 st Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
	3	Engine Watchkeeper	
Over 3000 Hp	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	1	3 rd Asst. Engineer	4 th Engineer
	1	Electrician	Master Electrician
	3	Engine Watchkeeper	
	2	Engine Ratings	

.5 Class E: Fishing Vessels

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
Below 35	1	Master	Boat Captain
Over 35-50	1	Master	Boat Captain
	1	Quarter Master	
Over 50-150	1	Master	Boat Captain
	1	Quarter Master	
	1	Seaman	
Over 150-250	1	Master	Minor Patron

	1	1 st Officer	Asst. Boat Captain
	1	Quarter Master	
	2	Seaman	
Over 250-500	1	Master	Major Patron
	1	1 st Officer	3 rd Mate
	1	Boatswain	
	3	Seaman	
Over 500-1600	1	Master	2 nd Mate
	1	1 st Officer	3 rd Mate
	1	Boatswain	
	2	Deck Watchkeeper	
	3	Seaman	
Over 1600	1	Master	2 nd Mate
	1	1 st Officer	Major Patron
	1	2 nd Officer	Minor Patron
	1	Boatswain	
	3	Deck Watchkeeper	
	3	Seaman	

.2 Engine Department

Power (BHP)	No.	Position	License/Qualification
35 and under	1	Chief Engineer	Boat Engineer
Over 35-250	1	Chief Engineer	MDM
	1	Engine Rating	
Over 250-1500	1	Chief Engineer	4 th Engineer
	1	1 st Asst. Engineer	MDM
	1	Engine Rating	
Over 1500 – 3000	1	Chief Engineer	3 rd Engineer
	1	1 st Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	
Over 3000	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	

.6 Class F: Pleasure Yachts⁴³

Tonnage (gt)	No.	Position	License/Qualification
35 and below	1	Master	MIP
	1	Chief Engineer	MDM
Over 35-100	1	Master	HBR Patron
	1	Chief Engineer	MDM
Over 100-250	1	Master	3 rd Mate
	1	Chief Engineer	MDM

.7 Class G: High Speed Craft⁴⁴

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
Below 100	1	Master	2 nd Mate
	1	1 st Officer	3 rd Mate
		Deck Rating*	
Over 100-250	1	Master	Chief Mate
	1	1 st Officer	3 rd Mate
		Deck Rating*	
Over 250-500	1	Master	Master Mariner
	1	1 st Officer	3 rd Mate
		Deck Rating*	

*one deck rating for every 100 authorized passenger capacity

⁴³ For Commercial Use

⁴⁴ The manning requirement described is limited to daytime navigation only. Nighttime navigation shall be subject to additional manning requirement as approved by the Administration

.2 Engine Department

Power (BHP)	No.	Position	License/Qualification
Below 1800 periodically unmaned engine room	1	Chief Engineer	4 th Engineer
Below 1800 periodically manned single engine room	1	Chief Engineer	3 rd Engineer
	1	1 st Asst. Engineer	4 th Engineer
Below 1800 periodically manned multi engine room	1	Chief Engineer	3 rd Engineer
	1	1 st Asst. Engineer	4 th Engineer
	1	2 nd Asst. Engineer	4 th Engineer
1801-3600 periodically unmaned engine room	1	Chief Engineer	3 rd Engineer
1801-3600 periodically manned single engine room	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	4 th Engineer
1801-3600 periodically manned multi engine room	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
3601-5400 periodically unmaned engine room	1	Chief Engineer	2 nd Engineer
3601-5400 periodically manned single engine room	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	3 rd Engineer
3601-5400 periodically manned multi engine room	1	Chief Engineer	2 nd Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	3 rd Engineer
5401-7200 periodically unmaned engine room	1	Chief Engineer	Chief Engineer
5401-7200 periodically manned single engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	Chief Engineer	Chief Engineer
5401-7200 periodically unmaned engine room	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
7201-10800 periodically unmaned engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	4 th Engineer
7201-10800 periodically manned single engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
7201-10800 periodically manned multi engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	3 rd Engineer
	1	2 nd Asst. Engineer	3 rd Engineer
10801-14400 periodically unmaned engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	3 rd Engineer
10801-14400 periodically manned single engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
10801-14400 periodically manned multi engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	4 th Engineer
14401-18000 periodically unmaned engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
14401-18000 periodically manned single engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	3 rd Engineer
14401-18000 periodically manned multi engine room	1	Chief Engineer	Chief Engineer
	1	1 st Asst. Engineer	2 nd Engineer
	1	2 nd Asst. Engineer	3 rd Engineer

5. Category III: Vessels Engaged in Harbor, Bay, Lake and River Voyage

.1 Class 1: Passenger Vessels

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
35 & below	1	Master	Boat Captain
Above 35-99	1	Master	MIP
	1	1 st Officer	Asst. Boat Captain
	1	Deck Rating	
100-249	1	Master	MAP
	1	1 st Officer	MIP
	2	Deck Rating	
250-499	1	Master	2 nd Mate
	1	1 st Officer	3 rd Mate
	1	Boatswain	
	2	Deck Rating	
500 and over	1	Master	2 nd Mate
	1	1 st Officer	2 nd Mate
	1	Boatswain	
	2	Deck Watchkeeper	
	2	Deck Rating	

.2 Engine Department

Power (BHP)	No.	Position	License/Qualification
70 and under	1	Chief Engineer	Boat Engineer
Over 70-200	1	Chief Engineer	MDM
	1	Engine Rating	
Over 200-500	1	Chief Engineer	4 th Engineer
	1	1 st Asst. Engineer	MDM
	1	Engine Rating	
Over 500 – 1000	1	Chief Engineer	3 rd Engineer
	1	1 st Asst. Engineer	MDM
	1	Engine Rating	
Over 1000	1	Chief Engineer	3 rd Engineer
	1	1 st Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	
	1	Engine Rating	

.2 Class 2: Cargo Vessels

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
35 & below	1	Master	Boat Captain
Over 35-99	1	Master	MIP
	1	1 st Officer	Asst. Boat Captain
	1	Deck Rating	
100-499	1	Master	MAP
	1	1 st Officer	3 rd Officer/MIP
	1	Boatswain	
	1	Deck Rating	
Over 500	1	Master	2 nd Mate
	1	1 st Officer	3 rd Mate
	1	Boatswain	
	2	Deck Watchkeeper	
	2	Deck Rating	

.2 Engine Department

Power (BHP)	No.	Position	License/Qualification
70 and under	1	Chief Engineer	MDM

Over 70-200	1	Chief Engineer	MDM
	1	Engine Rating	
Over 200-500	1	Chief Engineer	4 th Engineer
	1	1 st Asst. Engineer	MDM
	1	Engine Rating	
Over 500 – 1000	1	Chief Engineer	3 rd Engineer
	1	1 st Asst. Engineer	MDM
	1	Engine Watchkeeper	Oiler
Over 1000	1	Chief Engineer	3 rd Engineer
	1	1 st Asst. Engineer	4 th Engineer
	2	Engine Watchkeeper	
	1	Engine Rating	

.3 Class 3: Tankers

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
35 and under	1	Master	Boat Captain
Over 35-99	1	Master	MIP
	1	Deck Rating	Checker Pumpman
100-499	1	Master	MAP
	1	1 st Officer	3 rd Mate/MAP
	1	Deck Rating	Checker Pumpman
500 and over	1	Master	2 nd Mate/MAP
	1	1 st Officer	3 rd Mate/MIP
	1	Boatswain	
	2	Deck Rating	

.2 Engine Department

Power (BHP)	No.	Position	License/Qualification
70 and under	1	Chief Engineer	MDM
Over 70-200	1	Chief Engineer	MDM
	1	Engine Rating	
Over 200-500	1	Chief Engineer	4 th Engineer
	1	1 st Asst. Engineer	MDM
	1	Engine Rating	
Over 500 – 1000	1	Chief Engineer	3 rd Engineer
	1	1 st Asst. Engineer	MDM
	1	Engine Watchkeeper	Oiler
Over 1000	1	Chief Engineer	3 rd Engineer
	1	1 st Asst. Engineer	4 th Engineer
	1	Engine Watchkeeper	Oiler
	1	Engine Rating	

.4 Class 4: Tug & Dredgers

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
100 and below	1	Master	MIP
	1	Deck Rating	
Over 100-250	1	Master	MIP
	1	Deck Rating	
Over 250	1	Master	MIP
	1	Deck Rating	

.2 Engine Department

Power	No.	Position	License/Qualification
Below 250 Hp	1	Chief Engineer	MDM
250 Hp – 500 Hp	1	Chief Engineer	MDM
	1	Engine Watchkeeper	Oiler

Over 500 Hp	1	Chief Engineer	4 th Engineer/MDM Oiler
	2	Engine Watchkeeper	

.5 Class F: Fishing Vessels

.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
Below 35	1	Master	Boat Captain
35-49 ⁴⁵	1	Master	Boat Captain
	1	Quarter Master	
50-150	1	Master	Boat Captain
	1	Quarter Master	
	1	Seaman	
151-249	1	Master	MIP
	3	Quarter Master	
	2	Seaman	
250-499	1	Master	MAP 3 rd Mate
	1	1 st Officer	
	3	Quarter Master	
	3	Seaman	
500-1599	1	Master	2 nd Mate 3 rd Mate/MAP
	1	1 st Officer	
	3	Quarter Master	
	3	Seaman	
1600 and above	1	Master	2 nd Mate 3 rd Mate/MAP MIP
	1	1 st Officer	
	1	2 nd Officer	
	1	Boatswain	
	3	Seaman	

.2 Engine Department

Power (BHP)	No.	Position	License/Qualification
35 and below	1	Chief Engineer	Boat Engineer
Over 35-250	1	Chief Engineer	MDM
	1	Engine Rating	
Over 250-1500	1	Chief Engineer	4 th Engineer MDM
	1	1 st Asst. Engineer	
	1	Engine Rating	
Over 1500 – 3000	1	Chief Engineer	3 rd Engineer 4 th Engineer Oiler
	1	1 st Asst. Engineer	
	2	Engine Watchkeeper	
Over 3000	1	Chief Engineer	2 nd Engineer 4 th Engineer 4 th Engineer Oiler
	1	1 st Asst. Engineer	
	1	2 nd Asst. Engineer	
	2	Engine Watchkeeper	

⁴⁵ For open deck banca, the provision of below 35 gt shall apply

Regulation XVIII/5 - Special Manning

- 1 In case of emergency, in foreign ports, where one of the qualified officers is not carried because of illness, incapacity, disappearance, death or other unforeseen circumstances, and where replacement is not immediately available, a ship may be allowed, subject to prior approval of the Administration, to proceed to the next port of call where replacement shall be made upon arrival thereto, and provided that the master shall make an entry of that fact in the ship's logbook.
- 2 Such ship mentioned in paragraph 1 may only go to sea, carrying a deck officer less than is required, if at the time, the ship carries the full number of qualified marine engineer officers as is required by this Chapter.
- 3 In the case of the engine department, such a ship mentioned in paragraph 1 may only go to sea on such a voyage, if at the time, it shall have at least one qualified marine engineer officer required by this Chapter.
- 4 In the case of ratings, similar arrangements shall apply provided that a full complement of certificated officers is carried and that the manning of watches is not adversely affected to the satisfaction of the Administration.
- 5 No special manning shall be allowed for more than thirty days reckoned from the time the ship sails with officer/rating less than that required by this Chapter except in cases to be determined by the Administration.
6. In case of similar emergency in Philippine ports outside the homeport of the ship, the provision of Regulation XVIII/8 shall apply.

Regulation XVIII/6 - Additional Manning

Additional manning may be allowed and for which a new manning certificate shall be issued. However, special attention shall be given to the extent to which the crew is intended for other tasks.

Regulation XVIII/7 - Reduction of Manning

A ship may be allowed to reduce its manning complement, subject to the provisions of Regulation XVIII/3.

Regulation XVIII/8 - Dispensation/Upgrading of Officer

- 1 In circumstances of exceptional necessity, the Administration, shall issue a dispensation/upgrading permitting a specified seafarer to occupy in a specified ship for a specified period not exceeding three months in

a capacity for which he does not have an appropriate certificate/license, provided that the person to whom the dispensation/upgrading is issued shall be adequately qualified to fill the vacant post in a safe manner to the satisfaction of the Administration. However, dispensation/upgrading shall not be granted to a Master or Chief Engineer, except in circumstances of *force majeure* and shall be valid until the next port of call and provided further that such dispensation/upgrading shall be granted to ship operating in the domestic trade,

- 2 Any dispensation shall be granted only to a person properly certificated to fill the post immediately below. The vacant position, when certification/license of the position below is not required by this Chapter, a dispensation/upgrading shall be issued to a person whose qualification and experience are, in the opinion of the Administration, of a clear equivalence to the requirements for the post to be filled, provided that, if such a person holds no appropriate certificate/license, shall be required to pass a test accepted by the Administration, demonstrating that such a dispensation may safely be an appropriate certificate/license as soon as possible.

Regulation XVIII/9 – Watchkeeping

- 1 *Fitness for Duty:* The Administration, for the purpose of preventing fatigue shall:
 - .1 establish and enforce rest periods for watchkeeping personnel; and
 - .2 require that watch systems are so engaged that the efficiency of all watchkeeping personnel is not impaired by fatigue and that duties are so organized that the first watch at the commencement of a voyage and subsequently relieving watches are sufficiently rested and otherwise fit for duty.
- 2 *Watchkeeping Arrangements and Principles to be observed.*
 - .1 The Administration shall require shipping companies, masters, chief engineer officers and all watchkeeping personnel to observe the requirements, principles and guidelines set out in the STCW Code, to ensure that a safe continuous watch or watcher appropriate to the prevailing circumstances and condition are maintained in all sea going ships at all times.

- .1 Officers in charge of the navigational watch are responsible for navigating the ship safely during their periods of duty when they shall be physically present in the navigational bridge or in directly associated location such as

the chartroom or bridge control room at all times;

- .2 Radio operators are responsible for maintaining a continuous radio watch on appropriate frequency during their periods of duty;
- .3 Officers in charge of an engineering watch, as defined in the STCW Code and under the direction of the Chief Engineer, shall be immediately available and on call to attend the machinery spaces and when required shall be physically present in the machinery spaces during their periods of responsibility, and;
- .4 An appropriate and effective watch or watches are maintained for the purpose of safety at all times, while the ship is at anchor or moored and, if the ship is carrying hazardous cargo, the organization of such watch or watches takes full account of the nature quantity, packing and storage of the hazardous cargo and of any special conditions prevailing on board, afloat or ashore.

Regulation XVIII/10 - Certificate and Training

- 1 Each seafarer assigned on board ship shall hold appropriate certificate in accordance with the provisions of the 1978 STCW Convention, as amended.
- 2 Other personnel serving on board, other than the crew, shall in addition to the training requirements under paragraph 4 of Regulation XVIII/2 have to undergo familiarization training concerning safety matters.

Regulation XVIII/11 - Apprentice Training

Shipowners are being encouraged to accommodate reasonable number of graduates of maritime courses for apprenticeship training on board ships, provided that the provisions of safety appliances as indicated in the Ship Safety Certificate are enough to cover such additional bodies on board and the ships can provide comfortable billeting to them. Provided, further that each apprentice cadet shall provide himself with an approved Seafarer's Training Record Book where duties performed on board are recorded and certified.

Regulation XVIII/12 - Duties of Marine Officers

The duties of officers in the management and rational levels pursuant to the STCW Code and responsibilities to be defined under the International Safety Management Code are deemed duties of marine officers which shall complement

those applicable duties enumerated in the Philippine Code of Commerce, as amended.

CHAPTER XIX

MARITIME INVESTIGATION AND DISCIPLINARY PROCEEDINGS

Regulation XIX/1 – Scope

This chapter prescribes the rules and procedures on administrative investigation of all maritime-related cases described herein, including violation(s) of the Public Service Act, as amended, relevant rules and regulations and the grounds for the disciplinary/administrative action and prescribing penalty therefore.

Regulation XIX/2 – Objective

The purpose is two-fold: (a) to determine the cause(s) of maritime casualties/incidents/accidents and the adoption of measures to prevent the recurrence/occurrence of the same; and (b) to establish responsibility for a casualty or accident or violation of maritime laws, rules and regulations as basis for legal action.

Regulation XIX/3 - Report of Maritime Casualty/Marine Protest and Voyage Record

- 1 *Report of maritime casualty/Marine Protest.* The owner or master of a ship involved in a maritime casualty/incident/accident shall submit a written Report/Marine Protest to the Administration's Central Office or its nearest Regional Office where the casualty/incident/accident occurs, by any fastest means of communications within 24 hours from the occurrence of the maritime casualty/incident/accident, whenever the casualty/incident/accident, result in any of the following:
 - .1 Actual physical damage to the ship;
 - .2 Material damage affecting the seaworthiness or efficiency of the ship;
 - .3 Stranding, grounding, collision or sinking;
 - .4 Loss of life;
 - .5 Physical injuries to any person; and
 - .6 Incidents which may result to any of the above.
- 2 *Contents of the Report/Marine Protest.* The report required shall show the name and official number of the ship involved, the port of registry or homeport, the company thereof, the locations and time where the casualty occurred and, insofar as practicable, the nature and probable cause of the casualty, the nature,

names of persons and extent of injury to persons, the damage to property and estimated amount of loss or damage and other additional information relevant to the casualty/incident/accident.

3 *Voyage records, retention of:*

.1 The owner, agent, master or person in charge of any ship involved in a maritime casualty or accident shall retain such voyage records as are maintained by the ship, such as deck logbooks, engineering logs, bellbooks, navigation charts, course recorder chart, navigation workbooks, compass deviation cards, gyro-records, stowage plans, records of draft, aids to mariners, night order books, radiograms sent and received, radio logs, crew and passenger lists, shipping article, and other official logs and materials, which might be of assistance in investigating and determining the cause of the casualty or accident. The owner, agent, master, other officer or person responsible for the custody thereof, shall make these records available to the investigating or hearing officer/body concerned.

.2 The Investigating/Hearing Officer/Body may substitute true or photostatic copies of the voyage records referred to in the preceding paragraph when they serve their purpose and return the original records to the company.

4 *Report of accident to aids to navigation.* Whenever a ship strikes or causes damage to a lightship, buoy, or other aids to navigation under the jurisdiction of other appropriate government agency, or is connected with any such damage, it shall be the duty of the master of such ship to report the accident to the nearest appropriate government agency.

Regulation XIX/4 - Procedure of Investigation

1 *Commencement of Investigation.* Administrative investigation shall be initiated by the Administration through:

- .1 *motu proprio* based on reliable information/report;
- .2 Inspection/investigation report submitted by any official(s) of the Administration or other government agency;
- .3 Sworn complaint of any private person, duly supported by affidavits of witnesses and/or documentary evidence;
- .4 Marine Protest.

2 *Preliminary inquiry.*

- .1 Without prejudice to the plenary authority of the Board to order an investigation, an investigating officer/body shall conduct investigation in order to determine the cause(s) or any contributing factors of the casualty or accident and whether there has been any act of misconduct, inattention to duty, or negligence upon the part of any licensed or certificated ship's officers and seafarers, or whether there has been violation of law and rules, or whether there is evidence that any government agency or personnel or any other person caused or contributed to the cause of casualty/accident so that appropriate action shall be taken, and to determine whether a formal investigation shall be held.
- .2 In the conduct of the preliminary inquiry, the investigating officer/body may examine any relevant papers, documents or records, interview witnesses, and go on board to inspect ships and equipment and to examine ship and crew documents. The investigating officer/body may obtain and collect evidence including but not limited to affidavits, statements, books, papers, documents on records, and may make copies, take photographs, and remove and mark any original documents or objects for future identification.
- .3 Thereafter, the investigating officer/body shall submit an investigation report and recommendation to the Administration for appropriate action.

Regulation XIX - Formal Hearing

1 Power. Without prejudice to the filing of appropriate criminal action against the responsible person before the Department of Justice/Prosecutor's Office, the Hearing Officer/Body shall have the power to hear and try maritime casualty/incident/accident and complaints/cases against company and/or ship's officers and crew, for violation of these Rules and Regulations.

- .1 When prima-facie evidence exists, a show cause order shall be issued against the offenders), requiring him to file counter affidavit/answer under oath, within five days from receipt thereof, and to show cause why no administrative sanction shall be imposed against him.
- .2 The Hearing Officer/Body shall have the power to administer oaths, summon witnesses, require persons having knowledge of the subject matter to appear at the hearing to answer questions and to require the production of relevant books,

- papers, documents or any other evidence. Attendance of witnesses or the production of books, papers, documents or other evidence shall be compelled by a similar process as in the regular courts of justice.
- 3 In accordance with Section 29, Chapter V of the Public Service Act, as amended, the Hearing Officer/Body may summarily punish for contempt by a fine not exceeding two hundred pesos, any person guilty of misconduct in the presence of the Hearing Officer/Body or so near the same as to interrupt the hearing or session or any proceedings before him, including cases in which a person present at a hearing session or investigation held by the Hearing Officer/Body refuses to be sworn as a witness or to answer as such when lawfully required to do so. To enforce this provision, the Hearing Officer/Body may request the assistance of police authorities for the execution of any order made for this purpose.
 - 4 The venue of the hearing may be determined or changed by the Hearing Officer/Body *motu proprio* or upon motion of either of the parties when it is more advantageous to conduct the hearing.
 - 2 *Right to be represented by counsel.* The party litigants shall be given opportunity to present their case or defense personally or through counsel, and to present all witnesses and evidence as they may desire except that the Hearing Officer/Body shall have the discretion to overrule unreasonable motions regarding the presentation of evidence which are clearly dilatory.
 - 3 *Order of Hearing.* Unless the Hearing Officer/Body directs otherwise, the order of hearing shall be, as follows :
 - 1 The complainant or prosecution shall first introduce evidence in chief;
 - 2 The respondent or defense then presents evidence in support of its theory;
 - 3 The complainant or prosecution may submit rebuttal evidence;
 - 4 The respondent or defense may present sur-rebuttal evidence;
 - 5 When the presentation of evidence has been concluded, and formal offer of the same has been made, the parties may be required to submit their respective memoranda within a reasonable time.
 - 4 *Clarificatory questions.* The Hearing Officer/Body may from time to time ask clarificatory questions.
 - 5 *Objections.* All objections or interlocutory questions that arise during the proceedings shall be resolved by the Hearing Officer/Body as the case may be.
 - 6 *Rules of Evidence.* The proceedings of aforestated Hearing Officer/Body shall not be bound by the strict rules of evidence but the Rules of Court may be applied by analogy or in as, suppletory character, and whenever practical and convenient.
 - 7 *Employment of Stenographer.* The Hearing Officer/Body shall see to it that notes of the testimony of the witnesses or a summary thereof are taken, and together with the documentary evidence presented shall constitute the records of the case. The employment of a stenographer is optional except when in the opinion of the Hearing Officer/Body, the nature of the case requires the employment of one.
 - 8 *Marking.* All documentary evidence or exhibits shall be marked by letter (A, B, C, etc.) if introduced by the complainant and by number (1, 2, 3, etc.) if introduced by the respondent. They shall be attached to the records or, if voluminous, kept in a separate folder marked "Folder of Exhibits" which shall also be a part of the records.
 - 9 *Failure to prosecute.* If complainant fails to appear at the time of the trial, or to prosecute his action for an unreasonable length of time, or to comply with this Chapter or any order of the Hearing Officer/Body, the action may be dismissed upon motion of the respondent or upon the Hearing Officer/Body's own initiative. This dismissal shall have the effect of adjudication upon the merits, unless otherwise ruled by the Hearing Officer/Body.
 - 10 *Failure to Answer/Appear.* If the respondent fails to answer within the period specified in the Order, he shall be declared in default and deemed to have waived his right to file an answer and the case shall proceed accordingly. If the respondent fails to appear by himself or through counsel on the specific date of hearing upon proof of service of notice to the latter, he shall be declared as in default and the hearing shall proceed *ex-parte*.
 - 11 *Hearing Ex-Parte.* The Hearing Officer/Body may *motu proprio* or through motion of a party-litigant proceed with the hearing *ex-ports*, when one of the parties has been declared in default or otherwise refuses to recognize the authority of the investigating

body or to comply with these rules or any order issued during the proceedings.

12 *Relief from order of default.* A party declared in default, may at any time after discovery thereof and before decision, file a motion under oath to set aside the order of default upon proper showing that his failure to answer was due to fraud, accident, mistake or excusable neglect and that he has a meritorious defense. In such case, the order of default may be set aside on such terms and conditions as the Hearing Officer/Body may impose in the interest of justice.

13 *Testimony by Interrogatories and Deposition*

.1 Witnesses shall be examined orally, except that for a good cause shown, testimony may be taken by deposition upon application of any party in interest or upon the initiative of the Hearing Officer/Body.

.2 Application to take deposition shall be made to the Hearing Officer/ Body prior to or during the course of the proceedings, and shall be made in writing setting forth the reasons for the need, the name and address of the witness, the matters on which the witness is expected to testify and the time and place proposed for the taking of the deposition. Such deposition may be taken before any officer authorized to administer oath under the Administrative Code of 1987. The procedure for taking deposition shall be in accordance with existing court practices.

.3 When the deposition has been duly executed, it shall be returned to the Hearing Officer/Body to be presented to the parties concerned for their examination. The Hearing Officer/Body shall rule on the admissibility of the deposition or any part thereof and of any objection offered by either party thereto.

14 *Report of Hearing.* The Hearing Officer/Body shall submit to the Management its report of findings and recommendation within 30 days after the termination of the formal hearing or after the parties have submitted their respective memoranda, as the case may be.

15 *Decision.* The Management may base its decision upon the findings and recommendations of the Hearing Officer/Body or may deviate from or disregard the same, or may order further investigation of the case.

16 *Motion for Reconsideration.* Either party may, within 15 'days without extension from receipt of decision, file with the Management a motion for reconsideration thereof on the

ground either the decision is not supported by the evidence on record or errors of law and/or fact, or irregularities have been committed prejudicial to the interest of the movant. Only one motion for reconsideration shall be entertained.

17 *Finality of Decision.* All decisions of the Management shall be final unless, within 15 days after receipt of a copy thereof, an appeal from said decision to the Board of the Maritime Industry Authority is filed and perfected.

18 *Appeal.* Within 15 days from receipt of the decision/Order, an appeal may be taken by serving upon the adverse party a copy of the appeal and filing with the Management three copies thereof.

19 *Record on appeal; form and contents thereof.* The full names of all the parties to the proceedings shall be stated in the caption of the record on appeal and it shall include the judgment or decision from which the appeal is taken, and, in chronological order, copies of only such pleadings, petitions, motions and all interlocutory orders as are related to the appealed judgment or decision and necessary for the proper understanding of the issue involved, together with such data as will show that the appeal was perfected on time. If an issue of fact is to be raised on appeal, the record on appeal shall include by reference all the evidence, oral and documentary, taken upon the issue involved. The reference shall specify the documentary evidence by the, exhibit number of letters by which it was identified when admitted or offered at the hearing and the oral evidence by the names of the corresponding witnesses. If the whole oral and documentary evidence in the case is to be included, a statement to that effect will be sufficient without mentioning the names of the witnesses or the number of letters or exhibits. Every record on appeal exceeding 20 pages must contain a subject index.

20 *Decision on appeal.* The decision of the Board shall be final and executory, unless within 15 days after receipt of a copy thereof, an appeal is filed with the appropriate appellate court.

Regulation XIX/6 - Suspension or Revocation of STCW Endorsement of Certificates and Seafarers Identification and Record Book (SIRB)

1 *Grounds for suspension or revocation.* The following shall be grounds for the suspension or revocation of STCW Endorsement of Certificates/SIRB:

.1 Incompetence, negligence or incapacity in the performance of duty;

- .2 Misconduct committed while acting under authority of his license or certificate;
 - .3 Intemperate habits such as drunkenness tending to cause immediate loss or destruction or serious damage to the ship or tending to endanger the life or lives of any person belonging to or on board such ship;
 - .4 Immoral or disgraceful conduct committed while acting under the authority of his license or certificate;
 - .5 Insubordination;
 - .6 Violation of the terms and conditions of the contract without just cause; and
 - .7 Conviction by a court of competent jurisdiction of a crime involving moral turpitude.
- 2 *Offenses for which revocation of license or certificate is mandatory.* Revocation of license or certificate is mandatory for the following acts or offenses, the serious nature of which is such that permitting such persons to sail under their license or certificate would be clearly a threat to the safety of life at sea, the welfare of seamen and properly aboard ship:
- .1 assault with dangerous weapon
 - .2 malicious destruction of ship's property
 - .3 misconduct resulting in loss of life or serious injury
 - .4 molestation of passengers
 - .5 murder or attempted murder
 - .6 mutiny
 - .7 perversion
 - .8 possession, use, sale or association with drugs, including marijuana
 - .9 serious theft of ship's store
 - .10 smuggling of aliens or goods
 - .11 sabotage
 - .12 court conviction of a crime involving moral turpitude
 - .13 jumping ship
 - .14 serious neglect of duty
- 3 For the purpose of this Regulation, the following shall be defined:

- .1 *Misconduct* is human behavior which violates some formal duty or established rule, such as the common law, the general Maritime; law, code of ethics, a ship's regulation or order, or shipping articles. In the absence of such established rules, misconduct is human behavior which a reasonable person would consider to constitute a failure to conform to the standard of conduct which is required in the light of all the existing facts and circumstances
- .2 *Negligence or inattention to duty* means the commission of an act which a reasonable prudent person of the same station, under the same circumstances would not commit, or the failure to perform an act which a reasonable prudent person of the same station under the same circumstances would not fail to perform.
- .3 *Incompetence* is the inability on the part a person to perform required duties whether due to professional deficiencies, physical disability, mental incapacity, or any combination of the same
- .4 *Acting under authority of a license, certificate or document* - A person employed in the service of a ship is considered to be acting under the authority of a license, certificate or document held by him when the holding of such license, certificate or document is required as a condition of employment. A person does not cease to act under the authority of his license, certificate or document while on authorized shore leave from the ship.

In case of licenses/certificates issued by another government agency, the Administration shall coordinate with that agency for appropriate action.

Regulation XIX/7 - Non-Issuance of STCW Endorsement of Certificates or SIRB or Document

No new STCW endorsement of certificates or SIRB or document shall be issued to a person whose similar document is under suspension or being proceeded against, except upon approval by the Administration.

Regulation XIX/8 - Preventive Suspension

If there is reason to believe at any time during the investigation or hearing, that the continued service of the certificated seafarers will be detrimental to the maritime service, the Investigating/Hearing Officer/Body may recommend to the Management the temporary confiscation of his certificates or document.

Regulation XIX/9 – Reinstatement

Any seafarer whose certificate or document has been revoked or surrendered shall be entitled to reinstatement after he shall have been cleared from the charge for which his certificate was revoked and upon the favorable findings by the Administration.

MEMORANDUM CIRCULAR NO. 137

TO : ALL SHIPOWNERS, OPERATORS AND MANAGERS OF PHILIPPINE - REGISTERED SEAGOING SHIPS AND OTHER MARITIME ENTITIES CONCERNED.

SUBJECT : AMENDMENTS TO CHAPTER XVIII OF THE PHILIPPINE MERCHANT MARINE RULES AND REGULATIONS (PMMRR) 1997 ON MINIMUM SAFE MANNING FOR SEAGOING SHIPS IN INTERNATIONAL TRADE.

Pursuant to the provisions of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978, as amended; IMO Resolution A.481 (XII) - Principles of Safe Manning; Regulation 13 (b), Chapter V of the International Convention for the Safety of Life at Sea 1974 (SOLAS), as amended; and Section 12 (e) of Executive Order No. 125, as amended, the following revised guidelines on the provision of Minimum Safe Manning are hereby prescribed.

I. OBJECTIVE:

To ensure that all Philippine-registered ships are properly manned by qualified and licensed officers and crew that can safely operate the ships at all times in accordance with the following provisions.

II. COVERAGE:

This Circular shall apply to all Philippine-registered seagoing, ships engaged in international trade.

III. DEFINITION OF TERMS:

1. *Master* is a person having command of a ship.
2. *Deck Officer* means an officer qualified in accordance with the provisions of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) 1978, as amended, Chapter II.
3. *Chief Engineer* is a senior licensed marine engineer officer responsible for the mechanical propulsion and the operation and maintenance of the mechanical and electrical installations of the ship.
4. *Engineer Officer* means an officer qualified in accordance with the provisions of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) 1978, as amended, Chapter III.
5. *Radio Officer* is a person holding an appropriate certificate issued and recognized by the Administration under the provisions of the Radio Regulations.
6. *Ratings man* is a member of the ship's crew other than the master or an officer.
7. *Seagoing ship* refers to Philippine-registered ships engaged in international trade.
8. *STCW Code* means the Seafarer's Training, Certification and Watchkeeping (STCW) Code as adopted by the STCW Convention 1978, as amended.

IV. GENERAL PROVISIONS:

1. Seagoing ships shall be completely manned by Filipino seafarers. No foreign officers shall be allowed onboard unless approved by the Administration.
2. Master, officers and ratings onboard seagoing ships shall be duly qualified, competent, certificated and medically fit in accordance with the existing rules on the issuance of certificates and endorsements for seafarers.
3. Seagoing ships shall have onboard an approved minimum safe manning certificate indicating the minimum number of officers and crew and their corresponding licenses and qualification requirements.
4. Masters, officers and ratings performing watchkeeping shall meet the training requirements of STCW 1978, as amended, and those not performing watchkeeping duties shall undergo the basic safety training. For high speed craft, the crew shall undergo additional training in accordance with IMO Resolution MSC 36 (63)¹ adopted on 20 May 1994.
5. By 01 February 1999, at least two (2) deck officers of seagoing ship must be holders of Radio General Operators' Certificate (GOC).

V. MINIMUM SAFE MANNING:

1. In adopting the Table of Minimum Safe Manning, herein prescribed, the Administration took cognizance of the Principles of Safe Manning, under IMO Resolution No. A.481 (XII). Safe Manning under these Rules shall, therefore, mean that the crew shall include sufficient

officers and ratings with appropriate skills and experience to ensure that the following-principles can be complied with:

- (a) The capability to maintain a safe bridge watch at sea in accordance with the STCW Convention 1978, as amended;
- (b) The capability to moor and unmoor a vessel effectively;
- (c) The capability to operate and maintain effectively all the watertight closing arrangements including ability to mount an effective damage control party;
- (d) The capability to operate and when practicable, maintain efficient, all fire equipment and life saving appliances provided including the ability to muster and disembark passengers and non-essential personnel;
- (e) The capability to manage the safety functions of the ship when employed in a stationary or near-stationary mode at sea;
- (f) The capability to maintain a safe engineering watch at sea in accordance with the STCW Convention 1978, as amended and also to maintain general surveillance of spaces containing main propulsion and auxiliary machinery;
- (g) The capability to operate the main propulsion and auxiliary machinery and maintain it in a safe condition to enable the ship to overcome the foreseeable perils of the voyage; and
- (h) The capability to maintain the safety arrangements and the cleanliness of machinery spaces to minimize the risk of fire.

2. In the application of the basic principles of safe manning to ensure the safe operations of ships, the following guidelines are hereby adopted:

- (a) There should be sufficient number of qualified personnel to meet the peak work-load situations and conditions with due regard to the number of hours of shipboard duties and rest periods that may be assigned to a seafarer;
- (b) The bridge watch shall consist of at least one (1) officer and one (1) deck rating qualified to take navigational watch, provided that they comply with the requirements of Parts 3 and 3-1 Section A-VIII/2 of the STCW 1978, as amended;
- (c) Except in ships of limited size, a three (3) watch system shall be adopted;
- (d) At each end of the ship, there should be sufficient persons to enable them to accept and effectively secure a tug and to send away tension and secure lines and backsprings. Any necessary operation should be capable of being performed at bow and stem simultaneously;
- (e) The engineering watch should consist of not less the one (1) duly qualified engineer officer and may include appropriate engine-room ratings provided that they comply with the requirements of Parts 3 and 3-2, Section A-VIII/2 of the STCW 1978, as amended;
- (f) In designating the number of personnel assigned to engineering watches, account shall be taken of the following:
 - (i) the number, size (KW) and type of the main propulsion and auxiliary units over which surveillance is to be maintained and the number of machinery spaces containing these units; and
 - (ii) adequacy of internal communication.
- (g) Except in ships of limited propulsion power, a three (3) watch system should be adopted; and
- (h) There should be a sufficient number of designated personnel available to ensure the cleanliness of machinery spaces.

3. The Administration shall issue a minimum safe manning certificate which needs to contain the following information:

- (a) A clear statement of the Ship's Name, Call Sign, IMO Number and Official Number, Gross Tonnage, Type of Ship, Port of Registry, and Kilowatt of the Main Propulsion;
- (b) A table showing the numbers and grades of the personnel required to be carried, together with any special conditions or other remarks.

VI. MINIMUM SAFE MANNING SCALE:

The Minimum Safe Manning of ships shall be according to the following scale:

1. CATEGORY 1: Ships Engaged in International Voyage

1.1 Passenger Ships **/Cargo Ships/Tankers

1.1.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
Below 500	1	Master	Chief Mate 2 nd Mate and 3 rd Mate
	2	Deck Officers :	
		:	
	1	Radio Officer *	
500-1599.99	2	Deck Rating	Master Mariner 2 nd Mate and 3 rd Mate
	1	Radio Officer *	
	3	Deck Rating	
	1	Master	
1600 and over	1	Chief Mate	Master Mariner Chief Mate 2 nd Mate or 3 rd Mate
	1	Deck Officer	
	1	Radio Officer *	
	3	Deck Rating	
	1	Master	

* Until 31 January 1999, a Radio Officer is required if the vessel is not yet GMDSS equipped.

** Additional Deck Officer is required for passenger ships 1600 gt and over.

1.1.2 Engine Department

Power (KW)	No.	Position	License/Qualification
Under 1500 KW (both for manned and periodically unmanned engine room)	1	Chief Engineer	2 nd Engineer 3 rd Engineer 3 rd or 4 th Engineer
	1	2 nd Engineer	
	1	Engine Office	
	2	Engine Ratings	
1500 KW and over (both for manned and unmanned engine room)	1	Chief Engineer	Chief Engineer 2 nd Engineer 3 rd or 4 th Engineer
	1	2 nd Engineer	
	1	Engine Office	
	3	Engine Ratings	

** Additional Engineer Officer is required for passenger ships 1500 KW and over.

1.2 Tugs and Anchor Handling

1.2.1 Deck Department

Tonnage (gt)	No.	Position	License / Qualification
Below 500	1	Master	Chief Mate 2 nd Mate and 3 rd Mate
	2	Deck Officers :	
		:	
	1	Radio Officer *	
500 and over	2	Deck Ratings	Master Mariner Chief Mate 2 nd or 3 rd Mate
	1	Master	
	1	Chief Mate	
	1	Deck Officer	
	1	Radio Officer *	
3	Deck Rating		

* Until 31 January 1999, a Radio Officer is required if the vessel is not yet GMDSS equipped.

1.2.2 Engine Department

Power (KW)	No.	Position	License/Qualification
Below 2500	1	Chief Engineer	2 nd Engineer
	1	2 nd Engineer	3 rd Engineer
	1	Engineer Officer	4 th Engineer
	2	Engine Ratings	
2500 and over	1	Chief Engineer	Chief Engineer
	1	2 nd Engineer	2 nd Engineer
	1	Engineer Officer	3 rd or 4 th Engineer
	3	Engine Ratings	

VII. SPECIAL MANNING (Sailing Short Handed):

1. Application for a level less than the minimum safe manning herein provided maybe allowed upon request of the company in the following instances:
 - 1.1 laid-up ship;
 - 1.2 dry-docking;
 - 1.3 for conduction purpose;
 - 1.4 supply boat;
 - 1.5 oil rig tender; and
 - 1.6 other similar cases.
2. A shortage during a voyage (while at sea) i.e. from the immediate port of origin to the next port of destination of one (1) Officer or one (1) Rating resulting from unforeseen exceptional circumstances such as illness or injury is permitted until the voyage is completed provided the Master is satisfied that the safe navigation and operation- of the ship will be maintained notwithstanding the shortage. The Administration shall be immediately informed of such circumstance.
3. No special manning shall be allowed for more than thirty (30) days reckoned from the ship sails with officer/rating less than that is required by this regulation except in cases to be determined by the Administration.
4. A tug boat operating within the coast of another country and which serves/acts as supply boat, oil rig tender and other similar cases shall be allowed to reduce by one (1) Deck Officer the minimum safe manning as required under VI. 1.2.

VIII. DISPENSATION/UPGRADING OF OFFICE:

The provisions of Memorandum Circular No. 132 dated 15 July 1998 shall govern the grant of dispensation to seafarers onboard Philippine-registered seagoing ships.

IX. WATCHKEEPING:

- 1 Fitness for Duty: The Administration, for the purpose of preventing fatigue shall:
 - .1 Establish and enforce rest periods for watchkeeping, personnel; and
 - .2 Require that watch systems are so engaged that the efficiency of all watchkeeping personnel is not impaired by fatigue and that the first watch are so organized that the first watch at the commencement of a voyage and subsequently relieving watches are sufficiency rested and otherwise fit for duty.
- 2 Watchkeeping Arrangement and Principles to be Observed:
 - .1 The Administration shall require shipping companies, Masters, Chief Engineer Officers and all watchkeeping personnel to observe the requirements, principles and guidelines set out in the STCW Code, to ensure that a safe continuous watch or watches appropriate to the prevailing circumstances and condition are maintained in all seagoing, ships at all times.
 - .1 Officers-in-charge of the navigational watch are responsible for navigating the ship safety during, their periods of duty when they shall be physically present in the navigational bridge or in associated location such as the chartroom or bridge control room at all times;
 - .2 Radio operators are responsible for maintaining a continuous radio watch on appropriate frequency during their periods of duty;
 - .3 Officer-in-charge of an engineering watch, as defined in the STCW Code Officers and under the direction of the Chief Engineer, shall be immediately available and on call to attend the machinery spaces and when required shall be physically present in the machinery spaces during their period of responsibility; and
 - .4 An appropriate and effective watch or watches are maintained for the purpose of safety at all times, while the ship is at anchor or moored and, if the ship is

carrying hazardous cargo, the organization of such watch or watches takes full account of the nature, quantity, packing and storage of the hazardous cargo and any special conditions prevailing onboard, a float as ashore.

X. DOCUMENTARY REQUIREMENTS FOR ISSUANCE OF A MINIMUM SAFE MANNING CERTIFICATE:

For Provisional Minimum Safe Manning Certificate :

Letter request

1. Crew list; and
2. Filing Fee

For Full Term Minimum Safe Manning Certificate :

1. Letter request;
2. Copy of full term Certificate of Vessel Registry (CVR); and
3. Filing Fee.

For Special Manning Certificate :

1. Letter request
2. Master's Report and Medical Certificate; and
3. Filing Fee

XI. FEES:

Provisional Minimum Safe Manning Certificate	-	P 1,000.00
Full Term Minimum Safe Manning Certificate	-	P 5,000.00
Special Manning Certificate	-	P 1,000.00

XII. VALIDITY

1. Provisional Minimum Safe Manning Certificate – three (3) months only reckoned from the issuance of Provisional CVR.
2. Full Term Safe Manning Certificate – the validity is co-terminus with the validity of the full term CVR.

XIII. REPEALING CLAUSE

Any provision of the Philippine Merchant Marine Rules and Regulations (PMMRR) 1997 and existing MARINA Rules and Regulation and Orders which are inconsistent with this Circular are hereby repealed or modified accordingly.

XIV. EFFECTIVITY

This Memorandum Circular shall be published once in a newspaper of general circulation in the Philippine and shall take effect fifteen (15) days after publication.

Manila, Philippines _____.

By The Authority of the MARINA Board:

AGUSTIN R. BENGZON
Administrator

Secretary's Certificate

This is to certify that the Memorandum Circular No. 137 has been approved by the MARINA Board in its 143rd Meeting held on 17 September 1998.

Atty. Gloria V. Banas
Acting Corporate Secretary

Date Published: October 06, 1998, Malaya Newspaper
Date Submitted to the UP Law Center: October 06, 1998

MEMORANDUM CIRCULAR NO. 148

TO : : ALL DOMESTIC SHIPPING COMPANIES AND OTHER MARITIME ENTITIES CONCERNED

SUBJECT : AMENDMENTS TO CHAPTER XVIII OF THE PHILIPPINE MERCHANT MARINE RULES AND REGULATIONS (PMMRR) 1997 ON MINIMUM SAFE MANNING FOR SHIPS IN THE DOMESTIC TRADE

Pursuant to the provisions of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978, as amended; IMO Res. 481 (XII) –Principles of Safe Manning; Regulation 13 (b), Chapter V of the International Convention for the Safety of Life at Sea, 1974 (SOLAS), as amended; the Tariff and Customs Code of the Philippines, as amended; and Executive Order 125/125-A, the following revised guidelines on the issuance of Manning Certificates are hereby prescribed.

I. OBJECTIVE:

To ensure that all Philippine-registered ships are properly manned by qualified and licensed officers and crew who can safely operate the ships at all times in accordance with the following provisions.

II. COVERAGE:

This Circular shall apply to all Philippine-registered ships engaged in the domestic trade and fishing vessels for international voyage.

III. DEFINITION OF TERMS:

1. **“Administration”** means the Maritime Industry Authority.
2. **“Safe Manning”** means the number of qualified, competent and certificated officers and ratings on board a ship who can safely operate her at all times.
3. **“STCW Code”** means the Seafarer’s Training Certification and Watchkeeping (SCTW) Code as adopted by the 1978 STCW Convention, as amended.
4. **“Function”** means a group of task, duties and responsibilities as specified in the STCW Code, necessary for ships operation, safety of life at sea or protection of the marine environment.
5. **“Management Level”** means the level of responsibility associated with:
 - 5.1. serving as master, chief mate, chief engineer or second engineer officer on board a seagoing ship; and
 - 5.2. ensuring that all functions within the designated area of responsibility are properly performed.
6. **“Operational Level”** means the responsibility associated with:
 - 6.1 serving as officer-in-charge of a navigational or engineering watch or as designated duty engineer for periodically unmanned machinery spaces or as radio operators on board a seagoing ship; and
 - 6.2 maintaining direct control over the performance of all functions within the designated area of responsibility in accordance with proper procedures and under the direction of an individual serving in the management level for that area of responsibility.
7. **“Support Level”** means the level of responsibility associated with performing assigned tasks, duties and responsibilities on board a seagoing ship under the direction of an individual serving in the operational or management level.
8. **“Limited Coastwise Operation in Partly Protected Waters”** means the operation of a vessel within six (6) Nautical Miles from any point of land through permitted routes indicated in the vessel’s Certificate of Inspection.
9. **“Ro-ro Passenger”** means a passenger ship with ro-ro cargo spaces or special category spaces as defined in the International Convention for the Safety of Life at Sea, as amended.
10. **“Officer”** means a member of the crew, other than the master, who has been designated as such national law or regulation or, in the absence of such designation, by collective agreement or custom.
11. **“Master”** means the person having command of a ship.
12. **“Chief Mate”** means an officer next in rank to the master and upon whom the command of a ship will fall in the event of the incapacity of the Master.
13. **“Deck Officer”** means an officer qualified in accordance with the provisions of Chapter II of the Convention.
14. **“Chief Engineer Officer”** means a senior engineer officer responsible for the mechanical propulsion and the operation and maintenance of the mechanical and electrical installations of the ship.

15. **“Second Engineer Officer”** means the engineer officer next-in-rank to the Chief Engineer and upon whom the responsibility for the mechanical propulsion and the operation and maintenance of the mechanical and electrical installation of the ship will fall in the event of the incapacity of the Chief Engineer.
16. **“Engineer Officer”** means an officer qualified in accordance with the provisions of chapter III of the Convention.
17. **“Medical Practitioner”** means a registered Doctor of Medicine in charge of the medical department of a ship.
18. **“Radio Officer”** means a person holding an appropriate certificate issued and recognized by the Administration under the provisions of the Radio Regulations Act.
19. **“Paramedic”** are auxiliary medical personnel such as midwives, or nurses with special training on administering first aid.
20. **“Major Patron”** (MAP) shall refer to a marine deck officer duly registered and certificated to act as officer or master of vessel/ship of not more than 500 GT navigating in the major coastwise trade routes within the territorial limits of the Philippines.
21. **“Minor Patron”** (MIP) shall refer to a marine deck officer duly registered and certificated to act as officer or master of vessel/ship of not more than 250 GT navigating within a specified body of water in the minor coastwise trade routes in the Philippines.
22. **“Boat Captain”** means a person authorized by the Administration to act as officers and/or in command of a boat/ship or the qualification/license to act as such.
23. **“Marine Diesel Mechanic”** (MDM) means a person authorized by the Administration to operate and maintain the ship’s diesel engine/s or the qualification/license to act as such.
24. **“Electrician”** means a licensed master electrician who is responsible for the maintenance of the electrical and electronic installations of the ship.
25. **“Rating”** means a member of the ship’s crew other than the master or an officer.

IV. GENERAL PROVISIONS:

1. Philippine-registered ships shall be completely manned by Filipino officers and ratings, except as authorized by the Administration.
2. Masters, officers and ratings onboard Philippine-registered ships shall be duly qualified, competent, certificated and medically fit in accordance with these Rules and Regulations.
3. Philippine-registered ships shall have onboard an approved safe manning document indicating therein the minimum safe manning complement and their corresponding licenses and qualification requirements.
4. Masters, officers and ratings performing watchkeeping shall meet the certification requirements of STCW 1978, as amended, and those not performing watchkeeping duties shall undergo basic safety training. For high speed craft, the crew shall undergo additional training in accordance with IMO Resolution MSC 36(63), and other relevant MARINA Circulars.
5. The highest officer on deck shall be of higher rank than the highest officer in the engine department, except in cases where the required engine power (Kw) is much greater and not in proportion to gross registered tonnage (GRT). (ex. Tugboats which are of big KW rating but are of small GRT).
6. For vessels with a voyage duration time of less than eight (8) hours, a minimum of two (2) officers shall be employed.
7. Engine Output Rating shall be measured in KW instead of BHP (1KW=1.341 HP).
8. The total aggregate power rating of main propulsion machineries shall be the basis for determining the minimum manning requirements in the engine department.
9. Ships shall have on board medical personnel in relation to the number of passengers and the duration of the voyage as shown below.

No. of Passengers	Voyage Duration	Medical Personnel Required
500-2000	12 hrs. or less	1 paramedic
	Over 12 hrs.	1 medical practitioner
Over 2000	12 hrs. or less	1 paramedic
	Over 12 hrs.	1 medical practitioner 1 paramedic

- 9.1 Such medical practitioner and paramedics shall undergo an orientation/refresher course on public health in relation to ship sanitation to be conducted by the health authority.
- 9.2 Such medical personnel named as Ship Health Officer shall be responsible for ensuring at all times the necessary standards of ship’s hygiene and cleanliness.
- 9.3 During the voyage, the medical practitioner shall maintain health records/logbooks and supply any information required by the health authority as to health conditions on board during the voyage.

9.4 The Master shall make known to the health authority, immediately upon discovery, any case of illness which is communicable in nature or death on board, in order to protect the interest of the other passengers and to facilitate the clearance of the ship without endangering public health.

10. Masters and first officers in the coastwise voyage (Category II) and bay and river voyage (Category III) must be holders of Ship Radio Mobile Operators Certificate issued by the National Telecommunications Commission. Radio Officers shall hold the licenses for the following:

Class	Tonnage	Radio License
A,B	over 500 gt	one Second Class
	over 250 gt	one Third Class
C,D,E	over 1600 gt	one Second Class
	over 500-1600 gt	one Third Class

Vessel certified by a recognized classification society and/or the National Telecommunication Commission as to compliance with the GMDSS requirement may not have a radio officer on board.

11. The Steward Department shall be adequately staffed for the provision of food and other services to the crew and passengers. All stewards and food handlers shall comply with the basic safety training and health requirements and must be holders of valid Seafarer's Identification and Record Books (SIRBs).
12. For fishing vessels plying the international waters with gross tonnage 500 and below, the Master shall be a licensed 3rd Mate and/or a Major Patron. For other fishing vessels the provisions for coastwise voyage shall apply to fishing vessels engaged in international voyage.
13. The 3rd Mate acting as Master of fishing vessel with gross tonnage over 500-1600 shall be with experience of not less than five (5) years as Master of a ship.
14. The following Chief Engineer Officer for fishing vessels engage in the domestic/international trade, shall be as follows:
 - a. For over 1200-2400 KW, the Chief Engineer shall be a 4th Marine Engineer with five (5) years experience as 4th Marine Engineer.
 - b. For over 2400 KW, the Chief Engineer shall be a 3rd Marine Engineer with five (5) years experience as 3rd Marine Engineer.
15. Special manning applies only to fishing vessels engaged in international voyage.
16. For tanker vessels over 250-500 gross tonnage that are on limited coastwise operation, the 3rd Mate can act as Master.
17. Officers and crew of high speed craft shall meet the training requirements provided under relevant MARINA Circulars. There shall be an additional one (1) deck rating for every one hundred (100) authorized passenger capacity.
18. For High Speed Craft, the manning requirement described is limited to daytime navigation only. Night time navigation shall be subject to additional manning requirement as approved by the Administration

V. MINIMUM SAFE MANNING:

1. In adopting the Table of Minimum Safe Manning herein prescribed, the Administration took cognizance of the Principles of Safe Manning under IMO Resolution No. A.481 (XII). Safe Manning under these Rules shall, therefore, mean that the crew shall include sufficient officers and ratings with appropriate skills and experience to ensure that the following principles can be complied with:
 - (a) The capability to maintain a safe bridge watch at sea in accordance with the STCW Convention of 1978, as amended;
 - (b) The capability to moor and unmoor a vessel effectively;
 - (c) The capability to operate and maintain effectively all the watertight closing arrangements including ability to mount an effective damage control party;
 - (d) The capability to operate and when practicable, maintain efficient, all fire equipment and life saving appliances provided including the ability to muster and disembark passengers and non-essential personnel;
 - (e) The capability to manage the safety functions of the ship when employed in a stationary or near-stationary mode at sea;
 - (f) The capability to maintain a safe engineering watch at sea in accordance with the STCW Convention, 1978, as amended and also to maintain general surveillance of spaces containing main propulsion and auxiliary machinery;
 - (g) The capability to operate the main propulsion and auxiliary machinery and maintain it in a safe condition to enable the ship to overcome the foreseeable perils of the voyage; and
 - (h) The capability to maintain the safety arrangements and the cleanliness of machinery spaces to minimize the risk of fire.
2. In the application of the basic principles of safe manning to ensure the safe operations of ships, the following guidelines are hereby adopted:

- (a) There should be sufficient numbers of qualified personnel to meet the peak work-load situations and conditions with due regard to the number of hours shipboard duties and rest periods that may be assigned to a seafarer.
 - (b) The bridge watch shall consist of at least one officer and one deck rating qualified to take navigational watch, provided that they comply with the requirements of Part 3 and 3-1 Section A-VII/2 of the STCW 1978, as amended.
 - (c) Except in ships of limited size, a three watch system shall be adopted.
 - (d) At each end of the ship there should be sufficient persons to enable them to accept and effectively secure a tug and to send away tension and secure lines and backsprings. Any necessary operation should be capable of being performed at bow and stern simultaneously.
 - (e) The engineering watch should consist of not less than one duly qualified engineer and may include appropriate engine-room ratings provided that they comply with the requirements of Part 3 and 3-2, Section A-VIII/2 of the STCW 1978, as amended.
 - (f) In designating the number of personnel assigned to engineering watches, account shall be taken of the following:
 - (i) the number, size (Kw) and type of the main propulsion and auxiliary units over which surveillance is to be maintained and the number of machinery spaces containing these units; and
 - (ii) adequacy of internal communication.
 - (g) Except in ships of limited propulsion power, a three watch system should be adopted;
 - (h) There should be a sufficient number of designated personnel available to ensure the cleanliness of machinery spaces;
3. The Administration shall issue a Certificate of Inspection with vessel's minimum safe manning indicating the numbers and grades of the personnel required to be carried, together with any special conditions or other remarks.

VI. MINIMUM SAFE MANNING SCALE

1. These Tables of Minimum Manning are general manning requirements subject to the General Provisions and provisions on Additional Manning, Reduction of Manning and Minimum Safety Manning of this Memorandum Circular.
2. Minimum Safe Manning is assessed on a case to case basis, upon request of the company and subject to the approval of the Administration.
3. **SHIPS ENGAGED IN COASTWISE VOYAGE**

- 3.1 Class A: Passenger Ships
 - 3.1.1 Deck Department

Tonnage (gt)	No.	Position	License/ Qualification
35 and below	1	Master	Boat Captain
	1	Deck Rating	
Over 35-100	1	Master	MIP Boat Captain
	1	Deck Officer	
	2	Deck Rating	
Over 100 –250	1	Master	2 nd Mate/MAP 3 rd Mate/MIP
	2	Deck Officers	
	2	Deck Ratings	
Over 250-500	1	Master	2 nd Mate/MAP 3 rd Mate and 3 rd Mate/MIP
	2	Deck Officers	
	2	Deck Ratings	
Over 500-1000	1	Master	2 nd Mate 3 rd Mate 3 rd Mate 2 nd Class
	1	Chief Mate	
	1	Deck Officer	
	1	Radio Officer	
	2	Deck Ratings	
Over 1000-1600	1	Master	Chief Mate 2 nd Mate 3 rd Mate 2 nd Class
	1	Chief Mate	
	2	Deck Officers	
	1	Radio Officer	
	3	Deck Ratings	

Over-1600	1	Master	Master Mariner
	1	Chief Mate	Chief Mate
	2	Deck Officers	2 nd Mate and 3 rd Mate
	1	Radio Officer	1 st Class
	3	Deck Ratings	

3.1.2 Engine Department

Power (Kw)	No.	Position	License/ Qualification
200 and below	1	Chief Engineer Officer	MDM
	1	Engine Ratings	
Over 200- 400	1	Chief Engineer Officer	4 th Marine Engr. MDM
	1	Engine Officer	
	1	Engine Ratings	
Over 400- 800	1	Chief Engineer Officer	4 th Marine Engr. 4 th Marine Engr.
	1	Engine Officer	
	2	Engine Ratings	
Over 800- 1200	1	Chief Engineer Officer	3 rd Marine Engr. 4 th Marine Engr. 4 th Marine Engr.
	1	2 nd Engineer Officer	
	1	Engine Officer	
	3	Engine Ratings	
Over 1200- 2400	1	Chief Engineer Officer	2 nd Marine Engr. 3 rd Marine Engr. 4 th Marine Engr.
	1	2 nd Engineer Officer	
	2	Engine Officers	
	3	Engine Ratings	
Over 2400	1	Chief Engineer Officer	Chief Marine Engr. 2 nd Marine Engr. 3 rd Marine Engr. and 4 th Marine Engr.
	1	2 nd Engineer Officer	
	2	Engine Officers	
	3	Engine Ratings	

3.2 Class B: Cargo Ships

3.2.1 Deck Department

Tonnage (gt)	No.	Position	License/ Qualification
35 and below	1	Master	Boat Captain
	1	Deck Rating	
Over 35- 100	1	Master	MIP Boat Captain
	2	Deck Officer Deck Ratings	
Over 100- 250	1	Master	3 rd Mate/MAP 3 rd Mate/MIP
	2	Deck Officer Deck Ratings	
Over 250- 500	1	Master	2 nd Mate/MAP 3 rd Mate and 3 rd Mate/MIP
	2	Deck Officers	
	2	Deck Ratings	
Over 500- 1000	1	Master	2 nd Mate 3 rd Mate 3 rd Mate 2 nd Class
	1	Chief Mate	
	1	Deck Officer	
	3	Radio Officer Deck Ratings	
Over 1000- 1600	1	Master	Chief Mate 2 nd Mate 3 rd Mate 2 nd Class
	1	Chief Mate	
	1	Deck Officer	
	3	Radio Officer Deck Ratings	

Over 1600	1	Master	Master Mariner Chief Mate 2 nd Mate and 3 rd Mate
	1	Chief Mate	
	2	Deck Officers	
	3	Deck Ratings	

3.2.2 Engine Department

Power	No.	Position	License/ Qualification
200 and below	1	Chief Engineer Officer	MDM
	1	Engine Rating	
Over 200- 400	1	Chief Engineer Officer	4 th Marine Engr. MDM
	1	Engineer Officer	
	1	Engine Rating	
Over 400- 800	1	Chief Engineer Officer	4 th Marine Engr. 4 th Marine Engr.
	1	Engineer Officer	
	2	Engine Ratings	
Over 800- 1200	1	Chief Engineer Officer	3 rd Marine Engr. 4 th Marine Engr. 4 th Marine Engr.
	1	2 nd Engineer Officer	
	1	Engineer Officer	
	3	Engine Ratings	
Over 1200- 2400	1	Chief Engineer Officer	2 nd Marine Engr. 3 rd Marine Engr. 4 th Marine Engr.
	1	2 nd Engineer Officer	
	2	Engineer Officers	
	3	Engine Ratings	
Over 2400	1	Chief Engineer Officer	Chief Marine Engr. 2 nd Marine Engr. 3 rd Marine Engr. and 4 th Marine Engr.
	1	2 nd Engineer Officer	
	2	Engineer officers	
	3	Engine Ratings	

3.3 Class C: Tankers

3.3.1 Deck Department

Tonnage (gt)	No.	Position	License/ Qualification
35 and below	1	Master	Boat Captain
	1	Deck Rating	
Over 35-100	1	Master	MIP Boat Captain
	1	Deck Officer	
	1	Deck Rating	
Over 100-250	1	Master	3 rd Mate/MAP 3 rd Mate/MIP
	1	Deck Officer	
	2	Deck Ratings	
Over 250-500	1	Master	2 nd Mate/MAP 3 rd Mate/MIP
	2	Deck Officers	
	2	Deck Ratings	
Over 500-1000	1	Master	2 nd Mate 3 rd Mate 3 rd Mate
	1	Chief Mate	
	1	Deck Officer	
	2	Deck Ratings	
Over 1000- 1600	1	Master	Chief Mate 2 nd Mate 3 rd Mate
	1	Chief Mate	
	2	Deck Officers	
	3	Deck Ratings	
Over 1600	1	Master	Master Mariner Chief Mate 2 nd Mate and 3 rd Mate
	1	Chief Mate	
	2	Deck Officers	
	3	Deck Rating	

3.3.2 Engine Department

Power	No.	Position	License/ Qualification
200 and below	1 1	Chief Engineer Officer Engine Rating	MDM
Over 200-400	1 1 1	Chief Engineer Officer Engine Officer Engine Rating	4 th Marine Engr. MDM
Over 400-800	1 1 1	Chief Engineer Officer Engine Officer Engine Rating	4 th Marine Engr. 4 th Marine Engr.
Over 800-1200	1 1 1 2	Chief Engineer Officer 2 nd Engineer Officer Engine Officer Engine Ratings	3 rd Marine Engr. 4 th Marine Engr. 4 th Marine Engr.
Over 1200-2400	1 1 1 2	Chief Engineer Officer 2 nd Engineer Officer Engine Officer Engine Ratings	2 nd Marine Engr. 4 th Marine Engr. 4 th Marine Engr.
Over 2400	1 1 2 3	Chief Engineer Officer 2 nd Engineer Officer Engine Officer Engine Ratings	Chief Marine Engr. 2 nd Marine Engr. 3 rd Marine Engr. and 4 th Marine Engr.

3.4 Class D: Dredgers and Anchor Handling & Tugs

3.4.1 Deck Department

Tonnage (gt)	No.	Position	License/ Qualification
35 and below	1 1	Master Deck Rating	MIP/Boat Captain
Over 35-100	1 1 1	Master Deck Officer Deck Rating	3 rd Mate/MIP 3 rd Mate/MIP
Over 100-250	1 1 2	Master Deck Officer Deck Ratings	2 nd Mate/MAP 3 rd Mate/MIP
Over 250-500	1 1 2	Master Deck Officer Deck Ratings	2 nd Mate/MAP 3 rd Mate/MIP
Over 500	1 1 1 2	Master Chief Mate Deck Officer Deck Ratings	2 nd Mate/MAP 3 rd Mate/MIP 3 rd Mate/MIP

3.4.2 Engine Department

Power (Kw)	No.	Position	License/ Qualification
75 and below	1 1	Chief Engineer Officer Engine Rating	MDM
Over 75-200	1 2	Chief Engineer Officer Engine Ratings	MDM
Over 200-1200	1 1 2	Chief Engineer Officer Engine Officer Engine Ratings	4 th Marine Engr. MDM
Over 1200-2400	1 1 3	Chief Engineer Officer Engine Officer Engine Ratings	3 rd Marine Engr. 4 th Marine Engr.

Over 2400	1	Chief Engineer Officer	2 nd Marine Engr.
	2	2 nd Engineer Officer	3 rd Marine Engr.
	2	Engineer Officer	4 th Marine Engr.
	3	Engine Ratings	

3.5 Class E: Fishing Vessels
3.5.1 Deck Department

Tonnage (gt)	No.	Position	License/ Qualification
35 and below	1	Master	Boat Captain
Over 35-50	1	Master	Boat Captain
	1	Deck Rating	
Over 50-150	1	Master	Boat Captain
	2	Deck Ratings	
Over 150-250	1	Master	MIP Boat Captain
	1	Deck Officer	
	3	Deck Ratings	
Over 250-500	1	Master	3 rd Mate/MAP 3 rd Mate/MIP
	1	Deck Officer	
	3	Deck Ratings	
Over 500 – 1600	1	Master	3 rd Mate 3 rd Mate/MAP
	1	Deck Officer	
	3	Deck Ratings	
Over 1600	1	Master	2 nd Mate 3 rd Mate/MAP MAP/MIP
	1	Chief Mate	
	1	Deck Officer	
	3	Deck Ratings	

3.5.2 Engine Department

Power	No.	Position	License/ Qualification
200 and below	1	<i>Chief Engineer Officer</i>	MDM
Over 200- 1200	1	Chief Engineer Officer	4 th Marine Engr. MDM
	1	Engineer Officer	
	1	Engine Rating	
Over 1200- 2400	1	Chief Engineer Officer	4 th Marine Engr. 4 th Marine Engr. MDM
	1	2 nd Engineer Officer	
	1	Engineer Officer	
	3	Engine Rating	
Over 2400	1	Chief Engineer	3 rd Marine Engr. 4 th Marine Engr. 4 th Marine Engr.
	1	2 nd Engineer Officer	
	1	Engineer Officer	
	3	Engine Ratings	

3.6 Class F: Pleasure
3.6.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
35 and below	1	Master	MIP
	1	Engineer Officer	MDM
Over 35-100	1	Master	MIP
	1	Engineer Officer	MDM
Over 100- 250	1	Master	3 rd Mate
	1	Engineer Officer	MDM

3.7 Class G: High Speed Craft

3.7.1 Deck Department*

Tonnage (gt)	No.	Position	License/Qualification
100 and below	1	Master	2nd Mate
	1	Deck Officer	3rd Mate
	1	Deck Rating	
Over 100-250	1	Master	Chief Mate
	1	Deck Officer	3rd Mate
	1	Deck Rating	
Over 250-500	1	Master	Master Mariner
	1	Deck Officer	3rd Mate
	1	Deck Rating	

3.7.2 Engine Department

Power(Kw)	No.	Position	License/Qualification
Below 1400 unmanned machinery space	1	Chief Engineer Officer	4 th Marine Engr.
Below 1400 manned machinery space	1	Chief Engineer Officer	3 rd Marine Engr.
	1	2 nd Engineer Officer	4 th Marine Engr.
Over 1400-2800 unmanned machinery space	1	Chief Engineer Officer	3 rd Marine Engr.
Over 1400-2800 manned machinery space	1	Chief Engineer Officer	2 nd Marine Engr.
	1	2 nd Engineer Officer	4 th Marine Engr.
Over 2800-4200 unmanned machinery space	1	Chief Engineer Officer	2 nd Marine Engr.
Over 2800-4200 unmanned machinery space	1	Chief Engineer Officer	2 nd Marine Engr.
	1	2 nd Engineer Officer	3 rd Marine Engr.
Over 4200-5400 unmanned machinery space	1	Chief Engineer Officer	Chief Marine Engr.
Over 4200-5400 manned machinery space	1	Chief Engineer Officer	Chief Marine Engr.
	1	2 nd Engineer Officer	3 rd Marine Engr.
Over 5400-8200 unmanned machinery space	1	Chief Engineer Officer	Chief Marine Engr.
	1	2 nd Engineer Officer	4 th Marine Engr.
Over 5400-8200 manned machinery space	1	Chief Engineer Officer	Chief Marine Engr.
	1	2 nd Engineer Officer	2 nd Marine Engr.

Over 8200-10200 unmanned machinery space	1 1	Chief Engineer Officer 2 nd Engineer Officer	Chief Marine Engr. 3 rd Marine Engr.
Over 8200-10200 manned machinery space	1 1 1	Chief Engineer Officer 2 nd Engineer Officer Engineer Officer	Chief Marine Engr. 2 nd Marine Engr. 4 th Marine Engr.
Over 10200-24000 unmanned machinery space	1 1	Chief Engineer Officer 2 nd Engineer Officer	Chief Marine Engr. 2 nd Marine Engr.
Over 10200-24000 manned machinery space	1 1 1	Chief Engineer Officer 2 nd Engineer Officer Engineer Officer	Chief Marine Engr. 2 nd Marine Engr. 3 rd Marine Engr.

4. SHIPS ENGAGED IN HARBOR, BAY, LAKE AND RIVER VOYAGE

4.1. Class 1: Passenger Vessels

4.1.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
35 and below	1	Master	Boat Captain
Over 35-100	1 1 1	Master Deck Officer Deck Rating	MIP Boat Captain
Over 100- 250	1 1 2	Master Deck Officer Deck Ratings	3 rd Mate/MIP 3 rd Mate/MIP
Over 250-500	1 1 3	Master Deck Officer Deck Ratings	2 nd Mate/MAP 3 rd Mate/MIP
Over 500	1 1 3	Master Deck Officer Deck Ratings	2 nd Mate 3 rd Mate

4.1.2 Engine Department

Power(Kw)	No.	Position	License/Qualification
55 and below	1	Chief Engineer Officer	MDM
Over 55-200	1 1	Chief Engineer Officer Engine Rating	MDM
Over 200-400	1 2	Chief Engineer Officer Engine Ratings	4 th Marine Engr.
Over 400-800	1 1 2	Chief Engineer Officer Engine Officer Engine Ratings	4 th Marine Engr. MDM
Over 800	1 1 2	Chief Engineer Officer Engine Officer Engine Ratings	3 rd Marine Engr. 4 th Marine Engr.

4.2 Cargo Vessels

4.2.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
35 and below	1	Master	Boat Captain
Over 35- 100	1	Master	MIP
	1	Deck Officer	Boat Captain
	1	Deck Rating	
Over 100-250	1	Master	3 rd Mate/MIP
	1	Deck Officer	3 rd Mate/MIP
	2	Deck Ratings	
Over 250-500	1	Master	2 nd Mate/MAP
	1	Deck Officer	3 rd Mate/MIP
	3	Deck Ratings	
Over 500	1	Master	2 nd Mate
	1	Deck Officer	3 rd Mate
	3	Deck Ratings	

4.2.2 Engine Department

Power(Kw)	No.	Position	License/Qualification
55 and below	1	Chief Engineer Officer	MDM
Over 55-200	1	Chief Engineer Officer	MDM
	1	Engine Rating	
Over 200-400	1	Chief Engineer Officer	4 th Marine Engr.
	1	Engine Rating	
Over 400-800	1	Chief Engineer Officer	4 th Marine Engr.
	1	Engine Officer	MDM
	2	Engine Ratings	
Over 800	1	Chief Engineer Officer	3 rd Marine Engr.
	1	Engine Officer	4 th Marine Engr
	2	Engine Ratings	

4.3. Tankers

4.3.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
35 and below	1	Master	Boat Captain
Over 35-100	1	Master	MIP
	1	Deck Rating	
Over 100- 250	1	Master	3 rd Mate/MIP
	1	Deck Rating	
Over 250-500	1	Master	3 rd Mate/MAP
	1	Deck Officer	3 rd Mate/MIP
	1	Deck Rating	
Over 500-1000	1	Master	2 nd Mate/MAP
	1	Deck Officer	3 rd Mate/MIP
	2	Deck Ratings	
Over 1000	1	Master	2 nd Mate
	1	Chief Mate	3 rd Mate
	1	Deck Officer	3 rd Mate/MIP
	2	Deck Ratings	

4.3.2 Engine Department

Power(Kw)	No.	Position	License/ Qualification
200 and below	1	Chief Engineer Officer	MDM
Over 200-400	1	Chief Engineer Officer	4 th Marine Engr
	1	Engine Rating	
Over 400-800	1	Chief Engineer Officer	4 th Marine Engr MDM
	1	Engine Officer	
	1	Engine Rating	
Over 800	1	Chief Engineer Officer	3 rd Marine Engr 4 th Marine Engr
	1	Engine Officer	
	2	Engine Ratings	

4.4 Tugs and Dredgers

4.4.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
35 and below	1	Master	Boat Captain
Over 35-100	1	Master	MIP
	1	Deck Rating	
Over 100- 250	1	Master	MAP/MIP
	2	Deck Ratings	
Over 250	1	Master	3 rd Mate/MAP MIP
	1	Deck Officer	
	2	Deck Ratings	

4.4.2 Engine Department

Power(Kw)	No.	Position	License/ Qualification
200 and below	1	Chief Engineer Officer	MDM
Over 200-400	1	Chief Engineer Officer	MDM
	1	Engine Rating	
Over 400	1	Chief Engineer Officer	4 th Marine Engr.
	2	Engine Ratings	

4.5 Class F: Fishing Vessels

4.5.1 Deck Department

Tonnage (gt)	No.	Position	License/Qualification
35 and below	1	Master	Boat Captain
Over 35-50	1	Master	Boat Captain
	1	Deck Rating	
Over 50-150	1	Master	Boat Captain
	2	Deck Ratings	
Over 150- 250	1	Master	MIP
	3	Deck Ratings	
	3	Deck Ratings	
Over 250-500	1	Master	3 rd Mate/MAP 3 rd Mate/MIP
	1	Deck Officer	
	3	Deck Ratings	
Over 500-1600	1	Master	3 rd Mate 3 rd Mate/MAP
	1	Deck Officer	
	3	Deck Ratings	
Over 1600	1	Master	2 nd Mate 3 rd Mate/MAP MIP
	1	Chief Mate	
	1	Deck Officer	
	3	Deck Ratings	

4.5.2 Engine Department

Power	No.	Position	License/ Qualification
200 and below	1	Chief Engineer Officer	MDM
Over 200-400	1	Chief Engineer Officer	MDM
	1	Engine Rating	
Over 400-1200	1	Chief Engineer Officer	4 th Marine Engr. MDM
	1	Engine Officer	
	1	Engine Rating	
Over 1200-2400	1	Chief Engineer Officer	4 th Marine Engr. 4 th Marine Engr.
	1	Engine Officer	
	2	Engine Ratings	
Over 2400	1	Chief Engineer Officer	3 rd Marine Engr. 4 th Marine Engr. 4 th Marine Engr.
	1	2 nd Engineer Officer	
	1	Engine Officer	
	2	Engine Ratings	

VII. SPECIAL MANNING

- In case of emergency in foreign ports, where one of the qualified officers not carried because of illness, incapacity, disappearance, death or other unforeseen circumstances, and where replacement is not immediately available, a ship may be allowed, subject to prior approval of the Administration, to proceed to the next port of call where replacement shall be made upon arrival thereto, and provided that the master shall make an entry of that fact in the ships logbook.
- Such ship mentioned in paragraph 1 may only go to sea, carrying a deck officer less than is required, if at the time, the ship carries the full number of qualified marine engineer officers as is required by this Chapter.
- In the case of engine department, such ship mentioned in paragraph 1 may only go to sea on such voyage, if at the time, it shall have at least one qualified marine engineer officer required by this Circular.
- In the case of ratings, similar arrangements shall apply provided that a full complement of certificated officers is carried and that the manning of watches is not adversely affected to the satisfaction of the Administration.
- No special manning shall be allowed for more than thirty days reckoned from the time the ship sails with officer/rating less than that required by this Circular except in cases to be determined by the Administration.

VIII. ADDITIONAL MANNING

Additional manning maybe allowed. However, special attention shall be given to extent to which the crew is intended for other tasks.

IX. REDUCTION OF MANNING

A ship may be allowed to reduce its manning complement subject to the provisions of Section V (minimum safe manning) of this Circular.

X. DISPENSATION/UPGRADING OF OFFICER

- A Dispensation Permit shall be granted to an officer to occupy the next higher rank in a particular ship only during emergency cases as determined by the MARINA, provided that the period shall not exceed three (3) months.
- A Dispensation Permit shall not be granted to a Master or Chief Engineer Officer.

XI. WATCHKEEPING

- Fitness for Duty: The Administration, for the purpose of preventing fatigue shall:

- 1.1 Establish and enforce rest periods for watchkeeping personnel; and
- 1.2 Require that watch systems are so engaged that the efficiency of all watchkeeping personnel is not impaired by fatigue and that the first watch are so organized that the first watch at the commencement of a voyage and subsequently relieving watches are sufficiently rested and otherwise fit for duty.
2. Watchkeeping Arrangements and Principles to be Observed
 - 2.1 The Administration shall require shipping companies, masters, chief engineer officers and all watchkeeping personnel to observe the requirements, principles and guidelines set out in the STCW Code, to ensure that a safe continuous watch or watcher appropriate to the prevailing circumstances and condition are maintained in all sea going ships at all times.
 - 2.1.1 Officers in charge of the navigational watch are responsible for the navigating the ship safely during their periods of duty when they shall be physically present in the navigational bridge or in associated location such as the chartroom or bridge control room at all times;
 - 2.1.2 Radio operators are responsible for maintaining a continuous radio watch on appropriate frequency during their periods of duty;
 - 2.1.3 Officers in charge of an engineering watch, as defined in the STCW Code and under the direction of the Chief Engineer, shall be immediately available and on call to attend the machinery spaces and when required shall be physically present in the machinery spaces during their period of responsibility, and;
 - 2.1.4 An appropriate and effective watch or watches are maintained for the purpose of safety at all times, while the ship is not at anchor or moored and, if the ship is carrying hazardous cargo, the organization of such watch or watches takes full account of the nature quantity, packing and storage of the hazardous cargo and any special conditions prevailing onboard, afloat or ashore.

XII. CERTIFICATE AND TRAINING

1. Each seafarer assigned on board ship shall hold the appropriate certificate in accordance with the provisions of the 1978 STCW Convention, as amended.
2. Other personnel serving on board, other than the crew shall have to undergo familiarization training concerning safety matters.

XIII. APPRENTICE TRAINING

Shipowners are being encouraged to accommodate a reasonable number of graduates of maritime courses for apprenticeship training on board ships, provided that provisions of safety appliances as indicated in the Ship's Safety Certificate are enough to cover such additional bodies on board and the ship can provide comfortable billeting to them. Provided further, that each apprentice cadet shall provide himself with an approved Seafarer's Training Record Book where duties on board are recorded and certified.

XIV. DUTIES OF MARINE OFFICERS

The duties of officers in the management and operational levels pursuant to the STCW Code and the responsibilities to be defined under the International Safety Management Code are deemed duties of marine officers. Such duties shall complement those applicable duties enumerated in the Philippine Code of Commerce, as amended.

XV. REPEALING CLAUSE:

The provision of the 1997 PMMRR, as well as other rules and regulations on minimum manning requirements for domestic vessels and fishing vessels for international voyages are hereby repealed.

XVI. EFFECTIVITY:

This Memorandum Circular shall take effect fifteen (15) days after publication once in a newspaper of general circulation in the Philippines.

Manila, Philippines 03 June 1999.

BY THE AUTHORITY OF THE MARINA BOARD

AGUSTIN R. BENGZON
Administrator

Secretary's Certificate

This is to certify that the above-mentioned Memorandum Circular No. 148 has been approved during the 148th Regular Meeting of the Maritime Industry Board of Directors held on 03 June 1999.

Atty. Gloria V. Bañas
Acting Corporate Board Secretary

Date of Publication: 19 June 1999

Date of Submission to the U.P. Law Center: 23 June 1999.